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DEFINITY[®] Communications System Generic 3i Implementation

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CHAPTER 1. INTRODUCTION

Overview

This manual is solely concerned with the completion of paper records and forms that are later used to initialize and administer the DEFINITY® Communications System Generic 3i (referred to as the "System" throughout this manual). The completed hard-copy forms are used later along with instructions contained in *DEFINITY® Communications System Generic 1 and Generic 3—System Management*, 555-230-550, to implement the System. All forms and features described in this manual apply to DEFINITY Communications System Generic 3i only. The information supports the G3i software release. This document also provides information about the International DEFINITY Communications System Generic 1 System Enhanced (G1.1SE and G1.2SE). Information that applies to the international product only is clearly marked as such (G 1.1 SE and/or G1.2SE).

This manual describes each form required to implement the various System and voice terminal features. Instructions on how to complete each form are also provided. The *DEFINITY® Communications System Generic 1 and Generic 3—System Management*, 555-230-500, describes how to use the completed forms (paper records) to initialize and administer the System.

To implement a System, obtain all associated information drafted in the planning process, where the System requirements were identified by the AT&T Account Team and the customer. Those requirements were converted into orderable System hardware when the Account Team configured the System.

To complete this manual, you must:

- Have hardware and feature knowledge (consult the *DEFINITY® Communications System Generic 1 and Generic 3i—System Description*, 555-230-200, and *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201). Refer to "Chapter 7. References," for a listing of all referenced documents.
- Know what System and terminal hardware has been ordered [refer to the Delivery Operations Support System (DOSS) order].

Organization

The other chapters of this manual areas follows:

Chapter 2. Communications Survey— describes the Communications Survey that consists of gathering information about the System, its users, their job functions, and their communication needs. This information is essential before beginning System implementation.

Chapter 3. Administration Commands and Error Messages— describes the various types of commands that can be used when administering the system's features, functions, and services. The use of an abbreviated command structure is discussed and a table of all administration-type commands is provided. In addition, a detailed listing of administration-related error messages is provided along with a brief explanation of what might have caused the error.

Chapter 4. System Features, Functions, and Service— provides the instructions required to implement the System and voice terminal features. A complete alphabetical coverage of each System feature or service is included in this chapter. Descriptions of each feature or service and associated tables listing the forms or fields on forms that must be completed or considered when implementing the feature are also provided. The table lists the chapter/page numbers where form instructions and associated blank forms can be found.

Chapter 5. Forms for Network Features and Services— lists the network-type forms and associated instructions required to implement Automatic Route Selection (ARS), Automatic Alternate Routing (AAR), Centralized Attendant Service (CAS), Distributed Communications System (DCS), Data Services Level (DS1), Tie Trunk Service, Integrated Services Digital Network-Primary Rate Interface (ISDN-PRI), and System trunk groups and associated trunks.

Chapter 6. Forms for System Features and Services— contains an alphabetical listing of the System forms and associated instructions for completing each field on the forms. The forms in this chapter provide an accurate representation of the screen forms that are displayed on the System's administration terminal (for example, DEFINITY® Communications System Generic 3 Management Terminal (G3-MT)) during System initialization and on-going administration.

Chapter 7. References— contains a listing of all referenced documentation. A brief description of each document is given.

Chapter 8. Abbreviations and Acronyms— contains a listing and definition of abbreviations and acronyms used in this and other related documentation.

Glossary— contains a description of terms used in this and other related documents.

Appendix— provides the procedures for entering the SPID in AT&T 7500 and 8503T voice terminals.

Index— contains a permuted index.

In addition, a separate Blank Forms Package accompanies this manual. The package contains a complete set of blank forms. Reproduce these forms as needed to obtain a set of hard copy forms for the System.

The information in Chapters 4, 5, and 6 of this manual may be used after the System has been initialized as a reference source when adding and changing features. This manual is the only source of detailed descriptions of the screen forms and the forms required to be completed or considered when implementing a System feature.

The following items should be considered:

1. Certain data entered on paper forms (such as group numbers) is used as part of the administrative input command when entering form data into the System. The group number is then displayed on the form as associated data from the paper record is being entered. Typically, in this manual, these types of fields are referred to as display-only fields although the data is required to be entered on the paper form when first making assignments. For example, assume a paper record for Hunt Group 4 is established during implementation. The **add hunt-group 4** command is then used to access the appropriate screen form for adding the hunt group. The "4" is then stored in translations for that hunt group. Subsequent updates to the hunt group require that the **change hunt-group 4** administrative command be used to make changes. (A complete list of administrative commands is provided in Chapter 3 and the commands associated with each screen form are provided with each form's coverage in Chapter 5 and Chapter 6.)
2. Some of the forms listed in Chapter 6 should not be changed on a routine basis. Specifically, the Dial Plan Record, Feature Related System Parameters, and Feature Access Codes forms do not normally require changes after initialization. When making additions or changes to the System, verify that the required forms and/or fields on the forms have been completed. Specify the additional data needed to add or change a feature.

Many of the System forms that are displayed on the administration terminal contain dynamic fields. Dynamic fields are either displayed or not displayed, depending on how another field on the form or the System's optional features are administered. In this manual, dynamic fields are identified by Implementation Notes shown below the form.

How to Use

The procedural checklist in the following steps should be followed to complete the forms in this manual.

1. Become familiar with the contents of this manual.
2. Conduct a Communications Survey. Instructions for completing a Communications Survey are in Chapter 2.
3. Review the various administration commands that are available for implementation purposes as shown in Chapter 3.
4. Use Chapter 4 of this manual to identify each form or fields on forms that require completion or consideration when implementing System features and services. Complete the associated forms as shown in Chapters 5 and 6. Blank forms are provided in the accompanying Blank Forms Package and are to be used for reproduction of working copies of the forms. After these forms have been completed, they should be used with administration commands in Chapter 3 and the information in *DEFINITY® Communications System Generic 1 and Generic System Management, 555-230-500*, to administer the features in the System. After initialization, all completed forms should be maintained as a hard-copy record of the initialization.

CHAPTER 2. COMMUNICATIONS SURVEY

Overview

The Communications Survey consists of gathering information about the System, its users, their job functions, and their communications needs. After this information is identified, it is then matched with available features and hardware to design a System that fulfills customer requirements.

Basically, the survey:

- Identifies the appropriate features and calling privileges for each user
- Assigns appropriate data on hard-copy forms that subsequently become part of the System's software database.

Survey Steps

Complete each of the survey steps in the order given. Some steps are best performed by a cooperative effort between the account team and the customer or customer's representative. Where applicable, these steps are so indicated.

Before actually beginning the survey, review the information provided in Chapters 4, 5, and 6. Chapter 4 contains a brief description of each System feature, function, or service. The associated forms and the fields to be completed on each form are given. Hardware and software requirements are noted where applicable. You will be required to complete various forms based on the features to be provided. Chapters 5 and 6 contain forms and instructions for completing each field on a form. Blank forms suitable for reproduction are provided in the "Blank Forms Package."

Review Chapters 4, 5, and 6 several times until you become familiar with the features, the forms required, and the data to be entered on the forms. The following documents provide additional information:

- *DEFINITY® Communications System Generic 1 and Generic 3i—System Description*, 555-230-200
- *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201
- *DEFINITY® Communications System Generic 1 and Generic 3—Planning and Configuration*, 555-230-600.

Step 1— (Account Team)

Obtain a list of equipment (including number and type) that has been ordered for the System. Identify the System cabinets ordered.

Find out what features and services are to be provided.

Step 2—Port Assignments (Account Team/Client)

This section contains the Port Assignment procedures for the System.

Port assignments play an important role in how a System is initialized and administered. Ports are the physical location on a circuit pack where terminals, trunks, or System adjuncts are connected. Once a port number is assigned, it becomes the "address" of the associated equipment or facility in the System. A record of port assignments must be made and kept. The record will eventually be used for System installation/initialization and ongoing administration.

During the Planning and configuration process, the types and quantities of circuit packs to be provided with the System were identified. This information must now be entered on the Port Assignment Records.

Using the hardware Configuration Layout record (obtain from the factory or Customer Support Service Organization, etc.) complete the Port Assignment Records per the following instructions. Note that the System cabinet configuration can include a combination of multi-carrier and single-carrier cabinets.

The following provides instructions for completing the communications survey for **multi-carrier cabinets** (MCC). Instructions for **single-carrier cabinets** (SCC) are provided following the multi-carrier cabinet information.

Multi-Carrier Cabinet—Port Assignment Records:

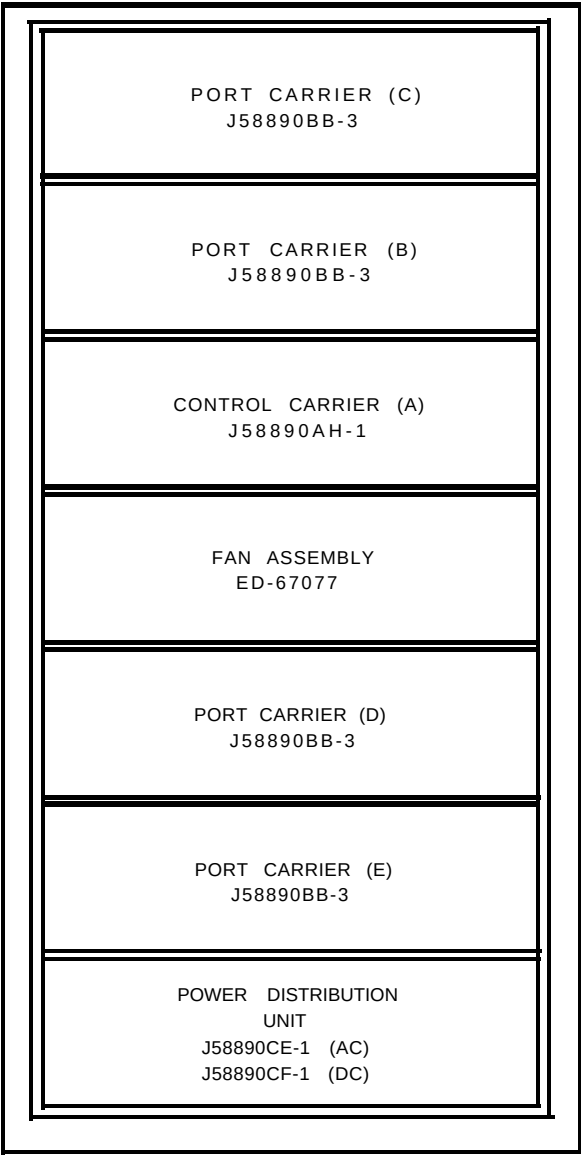
Identify in Table 2-A the cabinet type(s) and the number of port carriers to be used in the System. Figures 2-1 through 2-3 show the cabinet configurations as noted in the table.

Note: For detailed information on specific carrier slot assignments for circuit packs, refer to *DEFINITY Generic 1 and Generic 3i Maintenance, 555-204-105*.

TABLE 2-A. Multi-Carrier Cabinets

CABINET	PORT CARRIERS	PORT CIRCUIT PACK SLOTS *
PPN Without Duplication	1	29
	2	49
	3	69
	4	89
PPN With Duplication	1	38
	2	58
	3	78
EPN 1 or 2	1	39
	2	59
	3	79
	4	99

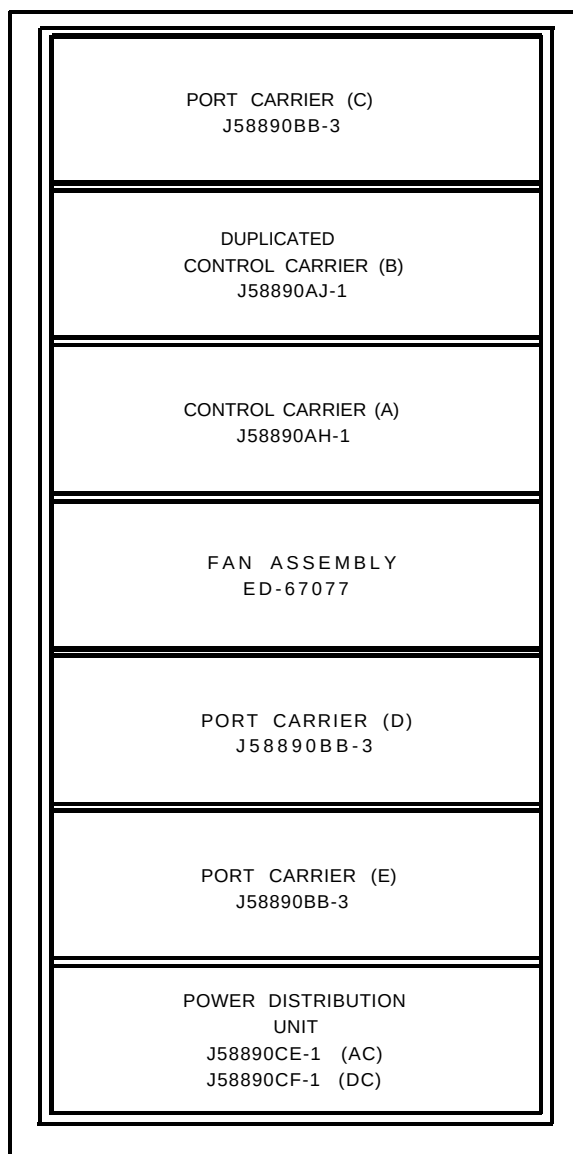
* Number represents all universal port slots in carrier (that is, does not exclude slots associated with Tone Clocks, Expansion Interface, etc.).



NOTE: THE CABINET IS AVAILABLE IN THE FOLLOWING ARRANGEMENTS:

- 1. PORT CARRIER IN POSITION B.
- 2. PORT CARRIERS IN POSITIONS B AND C.
- 3. PORT CARRIERS IN POSITIONS B, C, AND D.
- 4. PORT CARRIERS IN POSITIONS B, C, D, AND E.

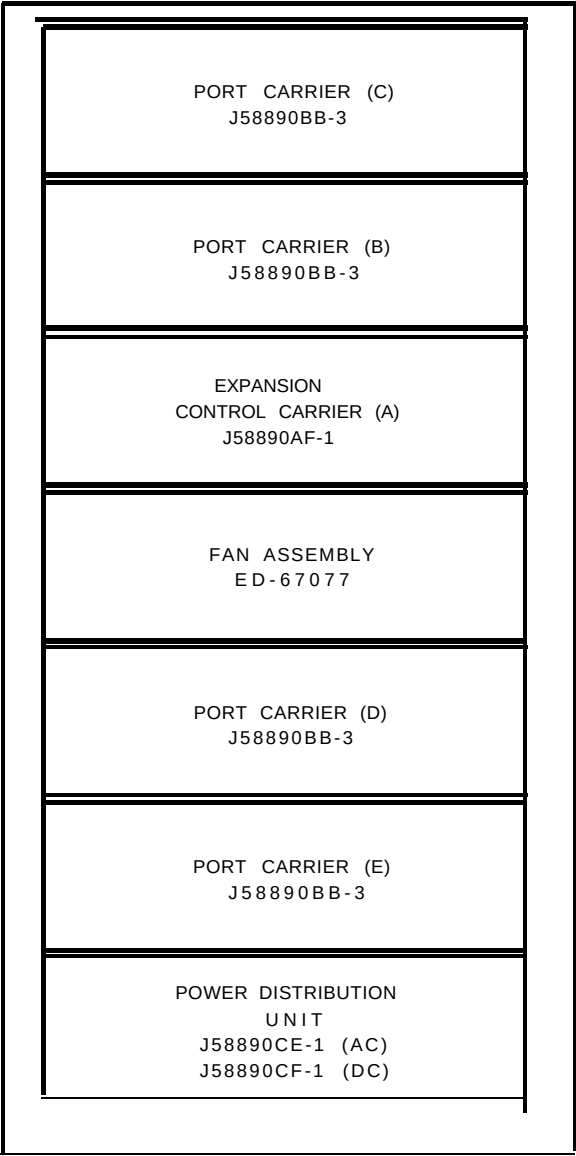
FIGURE 2-1. Fully Equipped Multi-Carrier PPN Cabinet (J58890A-1) Without Duplication Option (Front View)



NOTE: THE CABINET IS AVAILABLE IN THE FOLLOWING ARRANGEMENTS:

1. PORT CARRIER IN POSITION C.
2. PORT CARRIERS IN POSITIONS C AND D.
3. PORT CARRIERS IN POSITIONS C, D, AND E.

**FIGURE 2-2. Fully Equipped Multi-Carrier PPN Cabinet (J58890A-1)
With Duplication Option (Front View)**



- NOTE: THE CABINET IS AVAILABLE IN THE FOLLOWING ARRANGEMENTS:
- 1. PORT CARRIER IN POSITION B.
 - 2. PORT CARRIERS IN POSITIONS B AND C.
 - 3. PORT CARRIERS IN POSITIONS B, C, AND D.
 - 4. PORT CARRIERS IN POSITIONS B, C, D, AND E.

**FIGURE 2-3. Fully Equipped Multi-Carrier EPN Cabinet (J58890A-1)
With or Without Duplication Option (Front View)**

Remove the blank Port Assignment Record forms (Figures 2-4 and 2-5) and duplicate as many times as necessary to have enough pages for each type carrier and associated circuit packs to be assigned in the System. A blank Port Assignment Record for eight ports (Figure 2-4) is required for all circuit packs that contain up to eight ports. Each 8-port record provides assignment space for up to four circuit packs on a carrier. A blank Port Assignment Record for 24 ports (Figure 2-5) is required for each carrier slot that will house circuit packs that contain more than eight ports, for example, the TN722B DS1 Tie Trunk circuit pack, which has 24 administrable ports or a TN746 Analog Line circuit pack, which has 16 administrable ports.

Obtain sets of blank records for all control and port carriers to be used, then complete the following

1. With a set of records for a carrier, following the "CARRIER" entry at the top of the Port Assignment Record form, enter the following carrier ID as applicable:
 - Enter 1A for the Control Carrier (J58890AH-1).
 - Enter 1B for the Duplicated Control Carrier (J58890AJ-1).
 - Enter 2A for the Expansion Control Carrier (J58890AF-1).
 - Assign a letter (B, C, D, or E) to all records for each Port Carrier (J58890BB-3). Use the letter as noted on Figures 2-1, 2-2, or 2-3 for the Port Carrier location in the cabinet configuration.
2. Following the "CABINET" entry at the top of the record, enter the cabinet type as either Processor Port Network (PPN), Expansion Port Network 1 (EPN 1), or Expansion Port Network 2 (EPN 2), as applicable.
3. Repeat the preceding steps and complete the sets of records for each cabinet and for all Control Carrier and Port Carriers used in each cabinet.
4. Assign port circuit pack slot numbers on the sets of records as follows (refer to Table 2-B for circuit pack port slot availability and associated notes where applicable):
 - For Control Carrier 1A, begin with slot number 1 and number through 9.
 - For Control Carrier 1B, begin with slot number 1 and number through 9.
 - For the Expansion Control Carrier 2A, begin with slot 1 and number through 19.
 - All Port Carriers (B, C, D, E) slots should be numbered 1 through 20.

Table 2-B is provided to show the number of universal port circuit pack slots available on the various carriers and the number of administrable ports available on each circuit pack type. This manual does not provide guidelines or procedures associated with the distribution and configuration of circuit packs across the port networks. Considerations based on communities of interest, shared resources, minimizing inter-port network traffic, etc., are not covered in this manual. Obtain the hardware configuration layout from the factory or the Technical Service Center (TSC) for your System. The layout will identify the circuit pack mounting locations of each circuit pack for your System.

CARRIER _____ **CABINET** _____ **PORT ASSIGNMENT RECORD** **Page** _____

Slot	Port	Jack*	Extension Number		Bldg Flr Rm	Voice Terminal		Voice Terminal Adjunct	Module	Power*		User Name/Use
			Old	New		Type	Color					
Slot	01											
	02											
	03											
	04											
	05											
CKT PK Type	06											
	07											
	08											
	01											
	02											
Slot	03											
	04											
	05											
	06											
	07											
CKT PK Type	08											
	01											
	02											
	03											
	04											
Slot	05											
	06											
	07											
	08											
	01											
CKT PK Type	02											
	03											
	04											
	05											
	06											
Slot	07											
	08											
	01											
	02											
	03											
CKT PK Type	04											
	05											
	06											
	07											
	08											

* To be completed by installer

FIGURE 2-4. Port Assignment Record (for up to Eight Ports)

CARRIER _____ CABINET _____ PORT ASSIGNMENT RECORD Page _____

Slot	Port	Jack*	Extension Number		Bldg Flr Rm	Voice Terminal		Voice Terminal Adjunct	Module	Power*		User Name/Use
			Old	New		Type	Color					
Slot CKT PK Type	01											
	02											
	03											
	04											
	05											
	06											
	07											
	08											
	09											
	10											
	11											
	12											
	13											
	14											
	15											
	16											
	17											
	18											
	19											
	20											
	21											
	22											
	23											
	24											

* To be completed by installation technician

FIGURE 2-5. Port Assignment Record (for up to 24 Ports)

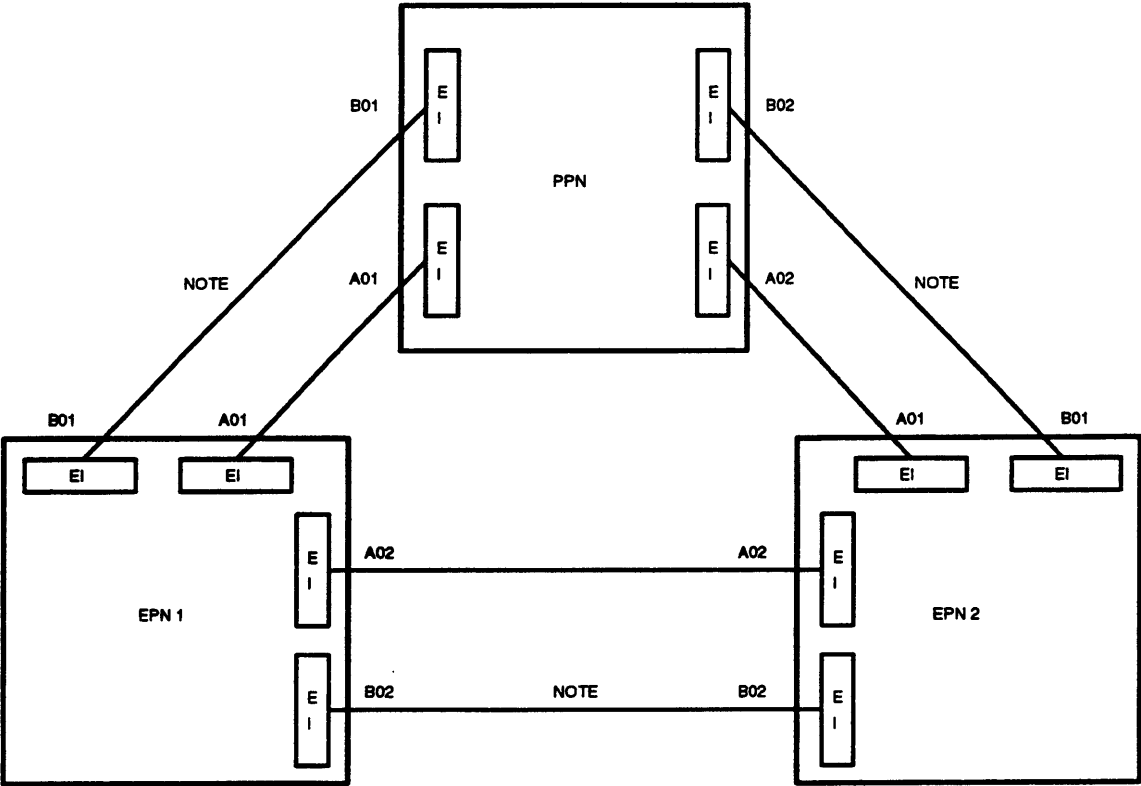
TABLE 2-B. Multi-Carrier Cabinet—Universal Port Slots and Associated Circuit Packs

Circuit Pack		Ports	Port Carrier (B, C, D, E) (J58890BB-3)		Control Carrier (1A) (J58890AH-1)		Duplicated Control Carrier (1B) (J58890AJ-1)		Expansion Control Carrier (2A) (J58890AF-1)	
Name	Code		Port Slot	Note	Port Slot	Note	Port Slot	Note	Port Slot	Note
Analog Line (8)	TN742	8	1-20	1	1-9	1	1-9	1	2-19	1
Analog Line (neon)	TN769	8	1-20	1	1-9	1	1-9	1	2-19	1
Analog Line (16)	TN746B	16	1-20	1	1-9	1	1-9	1	2-19	1
Announcement	TN750				1-9	7	1-9	7	2-19	7
Auxiliary Trunk	TN763C	4	1-20	1	1-9	1	1-9	1	2-19	1
Call Classifier	TN744		1-20		1-9		1-9		2-19	
CO Trunk	TN747B	8	1-20	1	1-9	1	1-9	1	2-19	1
Data Line	TN726B	8	1-20	1	1-9	1	1-9	1	2-19	1
DID Trunk	TN753	8	1-20	1	1-9	1	1-9	1	2-19	1
Digital Line	TN754B	8	1-20	1	1-9	1	1-9	1	2-19	1
DS1 Tie Trunk	TN722B	24	1-20	1	1-9	1	1-9	1	2-19	1
DS1 Interface	TN767*	24	1-20	1	1-9	1	1-9	1	2-19	1
Expansion Interface	TN776		1, 2	4	1,2	4	1,2	4	1,2	3, 4
Expansion Interface	TN570		1, 2	4	1,2	4	1,2	4	1,2	3, 4
Hybrid Line	TN762B	8	1-20	1	1-9	1	1-9	1	2-19	1
ISDN-BRI Line	TN556	12	1-20	1	1-9	1	1-9	1	2-19	1, 4
Maintenance/Test	TN771B		1-20	1	1-9	1	1-9	1	2-19	8
MET Line	TN735	4	1-20	1	1-9	1	1-9	1	2-19	1
Pooled Modem	TN758	2	1-20	1	1-9	1	1-9	1	2-19	1
Power Unit	TN55B				9	2	9	2	19	2
Speech Synthesizer	TN725B	4	1-20	1	1-9	1	1-9	1	2-19	1
Tie Trunk	TN760C	4	1-20	1	1-9	1	1-9	1	2-19	1
Tone-Clock	TN768		1-20	6						
Tone-Clock (Stratum 3)	TN780			9						
Tone Detector	TN748C		1-20	5	1-9	3	1-9	3	2-19	1

* The TN464C circuit pack is used with the International G1.2SE system.

Notes:

1. Provided as required.
2. TN755B Power Unit—required when neon message waiting power is required.
3. One always required.
4. TN776 Expansion Interface (EI) may be used when the Basic Rate Interface (BRI) circuit packs (if any) are all on the PPN. Applies to BRI station sets and CallVisor™ Adjunct Switch Application Interface (ASAI). TN570 is required if any BRI circuit pack (voice set or ASAI) is on an EPN since the TN570 is required for any extension of the Packet Bus to an EPN. Refer to Figure 2-6 for the (EI) carrier/slot assignments based on the system configuration.
5. TN748C Tone Detector—one always required when equipped in cabinet positions B and C.
6. TN768 Tone Clock—required when connecting to a duplicated PPN. Only required in carrier cabinet position B mounted in an EPN. Has a designated slot.
7. Only one TN750 Announcement circuit pack may be assigned in the System. Assign in Control Carrier 1A when possible.
8. One TN771B required per port network in a duplicated system when Packet Bus is activated.
9. Required when connecting to an external Stratum 3 clock. Has a designated slot.



NOTE: USED ONLY FOR DUPLICATION OPTION

LEGEND:

- EI EXPANSION INTERFACE
- EPN EXPANSION PORT NETWORK
- PPN PROCESSOR PORT NETWORK
- A01 CARRIER A, SLOT 01

• •
• •
• •

B03 CARRIER B, SLOT 03

FIGURE 2-6. Expansion Interface (TN776 and TN570) Carrier/Slot Assignments

5. Using the hardware Configuration Layout record, assign circuit packs to port slots on all Port Assignment Records.
6. Identify how many ports are available on each type of circuit pack using Table 2-B. If a circuit pack contains less than eight ports, strike out (do not use) the unavailable slots on the Port Assignment Record associated with that circuit pack.

Some of the System forms you will complete later require port information. When completing such a form, first determine the type circuit pack that is required. (The type circuit pack for each feature, where required, is identified in "Chapter 4. System Features, Functions, and Services.") Obtain the Port Assignment Record and select the next available vacant port on the appropriate circuit pack. Then, complete the following Port Assignment Record items as required:

Jack #— to be completed by the installation technician. Used to denote the physical location of the jack.

Extension Number— This information can be taken from data obtained using *DEFINITY® Communications System Generic 1 and Generic 3—Planning and Configuration, 555-230-600*.

- old—enter the old extension number to be replaced
- new—enter the new extension number.

Bldg., Flr., Rm.— enter the identifying information for the location of the voice terminal, data terminal, etc.

Voice Terminal or Equipment Type/Color— enter the terminal or equipment information.

Voice Terminal Adjunct— enter adjunct equipment associated with the terminal, for example, speakerphone, headsets, etc. This information can be taken from data obtained using *DEFINITY® Communications System Generic 1 and Generic 3—Planning and Configuration, 555-230-600*.

Module— enter Modular Processor Data Module (MPDM), Digital Terminal Data Module (DTDM,) Modular Trunk Data Module (MTDM), 702A Data Module Base (use with 7404D voice terminal), 703A Data Services Unit (DSU) (use with 7406D voice terminal), 7400A, 7400B, 7500B, Call Coverage feature, or Display module, as applicable.

Power— to be completed by the installation technician.

Blank— use as necessary.

User Name/Use— enter the name of the user or the feature name as appropriate, for example, Station Message Detail Recording (SMDR). This information can be taken from data obtained using *DEFINITY® Communications System Generic 1 and Generic 3—Planning and Configuration, 555-230-600*.

Once the preceding information has been entered on the Port Assignment Record, enter the port number on the System form you are completing. The port number consists of a port network number (1 = PPN, 2 = EPN 1, 3 = EPN 3), the letter assigned the carrier, and four numbers that consist of the slot number (01 to 20 depending on carrier type) and the port number (01 to 08 or 01 to 24). For example, A0208 is a port number for a single multi-carrier cabinet System (no EPN Cabinet) and designates the Control Carrier with a circuit pack mounted in slot 2 with port 08 assigned.

Step 3—Complete Circuit Pack Forms—Multi-Carrier Cabinet (Account Team/Client)

Note: The Circuit Pack forms do not have to be completed if the System cabinet is equipped with the circuit packs at the time of administration.

The Circuit Pack form allows the user to administer circuit packs to carrier slots before the circuit packs are actually installed in the carrier or cabinet. This then allows the System to be configured (administered) when the circuit packs have not yet been physically inserted in their appropriate slots. In order for any end-user equipment (voice terminals, data terminals, etc.) to be translated into the System, either a circuit pack must be physically inserted in the appropriate slot or be logically installed using the Circuit Pack form. The number of Circuit Pack forms and associated pages to be completed is dependent on the System configuration. For example, a multi-carrier PPN cabinet With Duplication requires one control carrier (use one circuit pack CARRIER 1A form), one duplicated control carrier (use one circuit pack CARRIER 1A form), and up to three port carriers (use three circuit pack CARRIER xy forms—one for each port carrier). For a PPN cabinet, mark each circuit pack form as "PPN." In the above example, five forms must be completed. When an EPN is supported, the Expansion Control carrier requires one circuit pack CARRIER 2A form to be completed (one for EPN 1 and one for EPN 2) in addition to a circuit pack CARRIER xy form for each port carrier in the configuration. Mark the associated Circuit Pack forms as "EPN 1 ," or "EPN 2" as appropriate. Use the circuit pack code (TN number) when assigning the circuit packs to slots.

The Circuit Pack forms are shown in Screens 2-1 and 2-2. The information entered on the forms can be taken from the Port Assignment Record.

The Circuit Pack administration forms consist of three sets of five pages each. One set is used for each port network (PPN, EPN 1, EPN 2) with one page for each of the port carriers on the specified network. Page 1 (Carrier 1A) is for Carrier A, Page 2 is for Carrier B, and so on. Page one of the PPN has 14 circuit pack slots. Check the Control carrier J-number to be sure the physical slots exist for the circuit packs you are administering. When the form is administered, the System will not validate that the slot you are administering actually exists. The rest of the pages (Pages 2 through 5) have 20 circuit pack slots. The single-carrier cabinet system does not have 20 slots or an E Carrier. However, the form shows 20 slots and the page for the E Carrier is administrable. Do not administer slots or carriers that you do not physically have. The A Carriers of the EPNs have 19 slots, the rest of the carriers (B-E) have 20.

Page 1 of 5

CARRIER 1A

Slot	Code	Sfx	Name
01:	_____	_____	_____
02:	_____	_____	_____
03:	_____	_____	_____
04:	_____	_____	_____
05:	_____	_____	_____
06:	_____	_____	_____
07:	_____	_____	_____
08:	_____	_____	_____
09:	_____	_____	_____
10:	_____	_____	_____

'#' indicates circuit pack conflict

Slot	Code	Sfx	Name
11:	_____	_____	_____
12:	_____	_____	_____
13:	_____	_____	_____
14:	_____	_____	_____

*Use slots A01-A14 with
 *J58890G-1 Control Carrier.
 *Use slots A01-A10 with J58890L-1
 *or J58890M-1 Control Cabinet.
 *Use slots A01-A09 with J58890AH
 *or J58890AJ Control Carrier.

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CARRIER 2A

Slot	Code	Sfx	Name
01:	_____	-	_____
02:	_____	-	_____
03:	_____	-	_____
04:	_____	-	_____
05:	_____	-	_____
06:	_____	-	_____
07:	_____	-	_____
08:	_____	-	_____
09:	_____	-	_____
10:	_____	-	_____

'#' indicates circuit pack conflict

Slot	Code	Sfx	Name
11:	_____	-	_____
12:	_____	-	_____
13:	_____	-	_____
14:	_____	-	_____
15:	_____	-	_____
16:	_____	-	_____
17:	_____	-	_____
18:	_____	-	_____
19:	_____	-	_____

SCREEN 2-1. Circuit Pack Administration Forms

Note: A "#" displayed beside a logically administered circuit pack name indicates a conflict between the administered name and the physical circuit pack mounted in that slot.

SCREEN 2-2. Circuit Pack Administration Forms (continued)

CARRIER xy: x= Port Network Number (1-3), y = Carrier Letter (A-E)

The remaining steps in the survey consist of instructions for completing System forms that are covered in "Chapter 4. System Features, Functions, and Services." As you proceed, there will be times when the data for a field on a form has not yet been identified. For those cases, note the fields requiring completion and then proceed. Later, complete the form when the applicable data is identified.

The following forms are required in all Systems and should be completed in the order given. For the Dial Plan, Class of Restriction (COR), and Class of Service (COS) features, review the associated feature description in "Chapter 4, System Features, Functions, and Services." Identify the fields on the form to be completed, and determine the number of forms required. The forms and associated instructions are included in "Chapter 6, Forms for System Features and Services." Complete the fields on all form(s) as required.

- 2-16

- Feature Access Codes (FAC)
- Feature-Related System Parameters
- System-Parameters Customer-Options (not administrable by customer).

Note: SMDR can be provided on selected trunk groups. Talk with the customer to determine the trunk groups that should be marked for SMDR. This can be done concurrently with the next step.

Step 5—Trunk Groups (Account Team)

A complete list of all trunk groups supported by the System is provided below. For each trunk group to be provided, review the associated trunk group description contained in "Chapter 5. Forms for Network Features and Services," identify the associated trunk group forms required and the fields on the form(s) to be completed, and determine the number of forms required. Complete the appropriate fields on all forms as required.

- Access
- Advanced Private Line Termination (APLT)
- Central Office (CO)
- Customer-Provided Equipment (CPE)
- Digital Multiplexed Interface (DMI)
- Direct Inward Dialing (DID)
- Foreign Exchange (FX)
- Integrated Services Digital Network—Primary Rate Interface (ISDN-PRI)
- Personal Central Office Line Groups (PCOLG)
- Release Link
- Tandem
- Tie
- Wide Area Telecommunications Service (WATS).

Step 6—Optional Feature Software (Account Team)

Each of the following features and forms are optional and may or may not be provided with the System. For each feature to be provided, review the associated feature description contained in "Chapter 4. System Features, Functions, and Services," identify the associated System forms and the fields on the forms to be completed, and determine the number of forms required. (The forms and associated instructions are included in "Chapter 6. Forms for System Features and Services.") Complete the appropriate fields on the duplicated forms as required. Note that the following features are activated on the System-Parameters Customer-Options form. The form is implemented during the installation of the System. Information associated with the implementation of the form is contained in *DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test*, 555-230-104. The form is not administrable by the customer.

- Abbreviated Dialing Enhanced List
- Authorization Codes
- Automatic Call Distribution (ACD)
- ARS
- ARS/MR Digit Conversion
- ARS/MR Partitioning
- Basic Call Management System (BCMS)
- CallVisor™ ASAI
- CallVisor ASAI Capability Groups*
 - Adjunct Call Control Group
 - Adjunct Routing Group
 - Event Notification Group
 - Request Feature Group
 - Set Value Group
- Call Work Codes
- Centralized Attendant Service (CAS) Branch
- Centralized Attendant Service (CAS) Main
- DCS
- Emergency Access to the Attendant
- Forced Entry of Account Codes
- Hospitality
- Hospitality Parameter Reduction
- ISDN-PRI
- Lookahead Interflow
- Calling Party Number/Billing Number (CPN/BN)
- Private Networking (AAR)
- Service Observing

* The CallVisor ASAI Capability Groups automatically default to "y" when the ASAI interface is enabled.

- Time of Day Routing
- Uniform Dial Plan (UDP)
- Vectoring (Basic)
- Vectoring (Prompting)

Note: You cannot implement forms or fields on forms associated with an optional feature that is not provided (that is, activated).

Step 7—Remaining System Features and Services (Account Team/Client)

For each feature to be assigned, review the associated feature description in "Chapter 4. System Features, Functions, and Services." Identify the associated System forms and the fields on the forms to be completed, and determine the number of forms required (also refer to Step 9 for a listing of group-related forms). Complete the fields on the duplicated forms as required. Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of each feature, when required.

Step 8—End User Survey (Account Team/Client)

Establish contact with a representative from each department, section, or work group that will be using the System. Each person selected must have the authority to make some decisions about the new communications System. You will need to interview these contacts as you go about the process of completing the System forms.

Identify each System user name, terminal type, and extension number to be assigned.

If required, enter each user name, terminal type, and extension number on a floor plan, or equivalent drawing. The floor plan will help you visualize various work groups and make later group assignments such as call answering groups or call pickup groups easier. This drawing, or an equivalent, can then be used by the installation technicians when installing voice terminals and associated equipment.

For all terminal types and quantities of each type identified, remove the applicable blank station forms from the Blank Forms Package and duplicate as many times as necessary.

On each duplicated station form, enter the applicable terminal type, user name, extension number, and port number.

Note: Refer to previous Step 2—Port Assignments for information on assigning a port and obtaining an equivalent port number for entry on the station form.

Step 9—Group Forms (Account Team/Client)

For each of the following features to be provided, review the associated description contained in Chapter 4, identify the associated forms and the fields on the forms to be completed, and determine the number of forms required. (The forms and associated instructions are included in "Chapter 6. Forms for System Features and Services.") Remove the applicable blank forms from the Blank Forms Package and duplicate as many times as necessary. Complete each field on the duplicated form as required.

- Abbreviated Dialing—System List
- Abbreviated Dialing—Group List
- Abbreviated Dialing—Personal List
- Call Coverage
- Hunt Groups (see Hunting feature description)
- Intercom Groups—Automatic and Dial
- Pickup Groups
- Terminating Extension Group.

Step 10—Voice Terminal/BCTs (Account Team/Client)

Complete the various fields on the previously obtained station forms. Before actually assigning features on the forms, review the features that can be assigned to each terminal type, the recommended button nomenclature, and the abbreviated feature name that must be entered on the form. The maximum number of buttons that can be assigned to a feature or function must also be considered. Information on each voice terminal type is provided in "Chapter 6. Forms for System Features and Services." The maximum number of buttons that can be assigned features (administrable buttons) is shown for each terminal type. You must not exceed this number when assigning feature buttons to the terminal. Voice terminal figures in Chapter 6 show each terminal that can be assigned, their associated button positions, and a suggested standard button arrangement.

The recommended button nomenclature is also used in the System's *DEFINITY® Communications System Generic 1 and Generic 3—Console Operations*, 555-230-700, *DEFINITY® Communications System Generic 1 and Generic 3—Voice Terminal Operations*, 555-230-701, and related User Instructions. If different nomenclature is used than that recommended, the related documentation for the System should be marked to reflect the changes, and that nomenclature then used in all System assignments. When the terminal is installed, the button nomenclature is then entered on a label and inserted next to the button that is assigned the feature. A set of pre-printed labels comes with each voice terminal.

Step 11 —Review (Account Team/Client)

Review all features and services listed in "Chapter 4. System Features, Functions, and Services" and ensure that a form has been completed for all features and services to be provided. Review all features requiring hardware and ensure that a port assignment has been made on a Port Assignment Record for each port interface required, and that the associated port number has been correctly entered on the associated System and circuit pack administration forms.

Retain all completed forms for use during System initialization. The method used for determining circuit pack locations is the same method used at the factory. If there are differences, the System configuration, the Port Assignment Records, and the associated port assignments entered on the System forms must match before administering the System.

This completes the Communications Survey for a multi-carrier cabinet.

Single-Carrier Cabinet—Port Assignment Records:

Identify in Table 2-C the cabinet type(s) and the number of cabinets to be used in the System. Figures 2-7 through 2-9 show various single-carrier cabinet configurations. These are examples only and do not depict all possible configurations. For example, some configurations may require fewer port cabinets than are shown in the figures. Identify the type cabinet (Control, Expansion, and Port) and number of each type cabinet in your System.

TABLE 2-C. Single-Carrier Cabinets

CABINET CONFIGURATIONS	NUMBER CABINETS	PORT CIRCUIT PACK SLOTS*
PPN	1	10
Without Duplication	2	28
	3	46
	4	64
PPN	1	10
With Duplication	2	20
	3	38
	4	56
EPN 1 or 2	1	17
Without Duplication	2	35
	3	53
	4	71

*Number represents all universal port slots in cabinet (that is, does not exclude slots associated with Tone Clocks, EI, etc.).

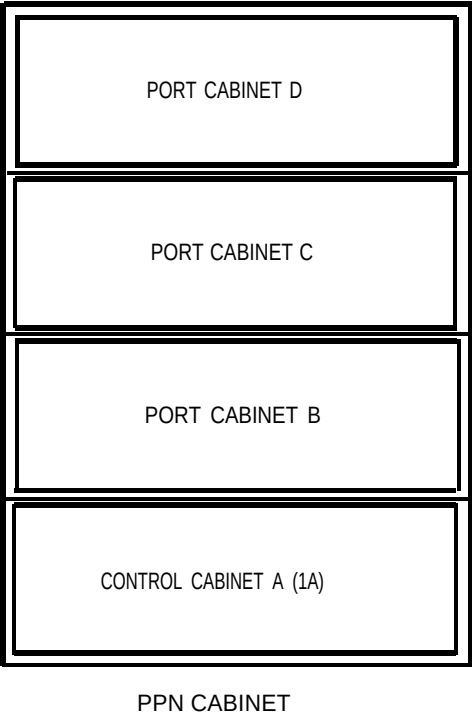


**FIGURE 2-7. Single-Carrier Cabinets—Without Duplication
(Four-Cabinet System—Front View)**

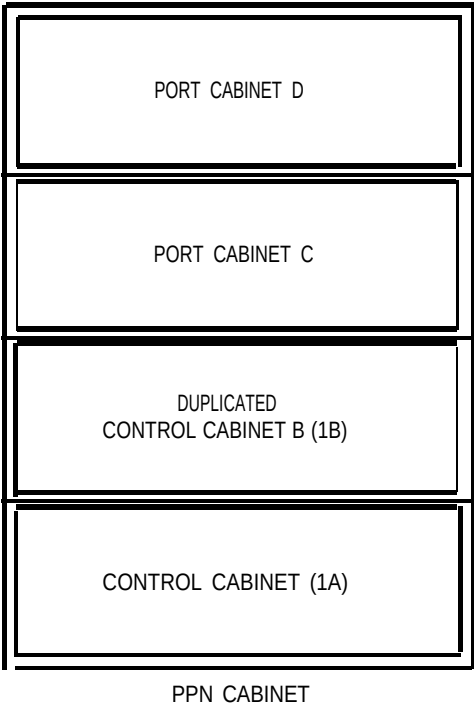


**FIGURE 2-8. Single-Carrier Cabinets—Wtih Duplication
(Four-Cabinet System—Front View)**

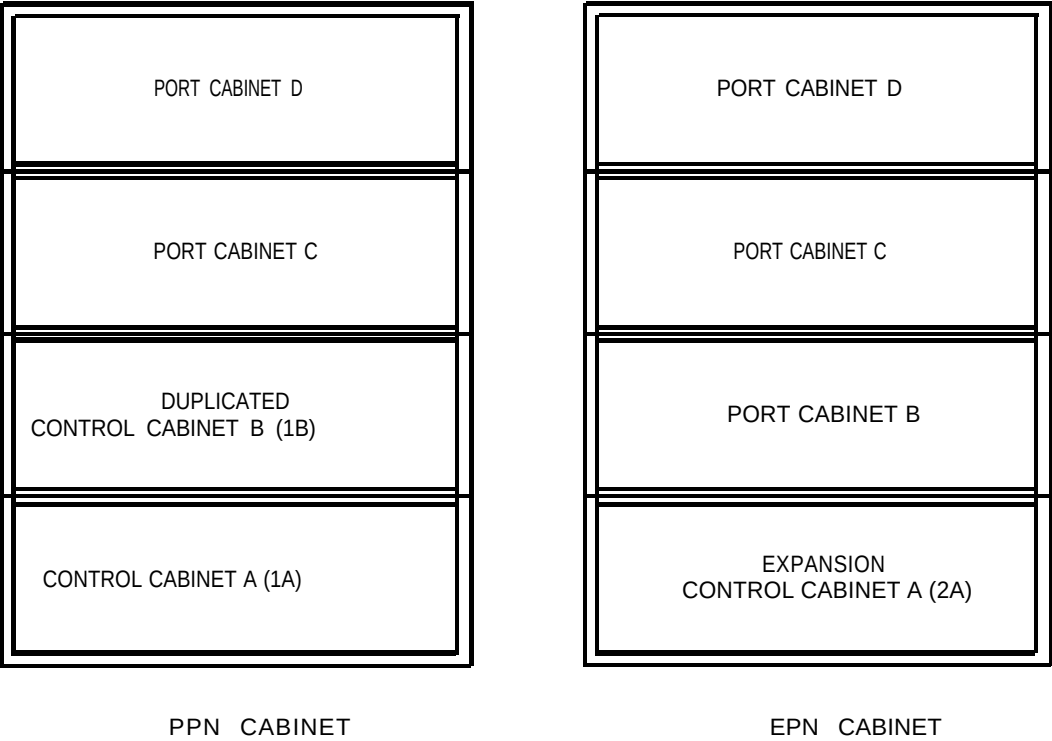


FIGURE 2-9. Single-Carrier Cabinets—Expansion Port Network 1 (Four-Cabinet System—Front View)

Remove the blank Port Assignment Record forms (Figures 2-4 and 2-5) and duplicate as many times as necessary to have enough pages for each type cabinet and associated circuit packs to be assigned in the System. A blank Port Assignment Record for eight ports (Figure 2-4) is required for all circuit packs that contain up to eight ports. Each 8-port record provides assignment space for four slots on a cabinet. A blank Port Assignment Record for 24 ports (Figures 2-4 and 2-5) is required for each slot that will house circuit packs that contain more than eight ports, for example, the TN722DS1 Tie Trunk or TN746 Analog Line circuit pack.

Obtain sets of blank reeds for all Control, Expansion, and Port cabinets to be used, then complete the following:

1. With a set of records for a single-carrier cabinet—following the "CARRIER" entry at the top of the form, enter the applicable cabinet ID, as follows:
 - Enter 1A for the Control Cabinet (J58890L-1) without the Duplication Option.
 - Enter 1B for the Control Cabinet (J58890M-1) with the Duplication Option.
 - Enter 2A for the Expansion Control Cabinet (J58890N-1).
 - Assign a letter (B, C, or D) to all records for each Port Cabinet (J58890H 1). Use the letter as noted on Figure 2-7, 2-8, or 2-9 for the Port Cabinet location in a multiple port cabinet configuration.
2. Following the "CABINET" entry at the top of the record, enter the applicable cabinet type as either PPN, EPN 1, or EPN 2.
3. Repeat the above steps and complete a set of records for each System cabinet.
4. Assign port circuit pack slot numbers on the sets of records as follows (refer to Table 2-D for circuit pack port slot availability and associated notes):
 - For Control Cabinet 1A, begin with slot number 1 and number through 10.
 - For Control Cabinet 1B, begin with slot number 1 and number through 10.
 - For the Expansion Control Cabinet 2A, begin with slot 1 and number through 17.
 - All Port Cabinets (B, C, or D) slots should be numbered 1 through 18.

Note that Table 2-D is provided to show the number of universal port circuit pack slots available on the various cabinets and the number of administrable ports available on each circuit pack type. This manual does not provide guidelines or procedures associated with the distribution and configuration of circuit packs across the port networks. Considerations based on communities of interest, shared resources, minimizing inter-port network traffic, etc., are not covered in this manual. Obtain the hardware configuration layout from the factory or the TSC for your system. The layout will identify the circuit pack mounting locations of each circuit pack for your system.

Port Cabinets B and C come equipped with a TN748C Tone Detector circuit pack in slot 1. These circuit packs may be installed in any slot on the cabinets, but it is recommended that they remain in their provided locations. No administration is required for the Tone Detector circuit packs.

TABLE 2-D. Single-Carrier Cabinet—Universal Port Slots and Associated Circuit Packs

Circuit Pack			Port Cabinet (J58890H-1)		Control Cabinet (J58890L-1)		Duplicated Control Cabinet (J58890M-1)		Expansion Control Cabinet (J58890N-1)	
Name	Code	Ports	Port Slot	Notes*	Port Slot	Notes*	Port Slot	Notes*	Port Slot	Notes*
Analog Line (8)	TN742	8	1-18	4	1-10	4	1-10	4	2-17	4
Analog Line (neon)	TN769	8	1-18	4	1-10	4	1-10	4	2-17	4
Analog Line (16)	TN746B	16	1-18	4	1-10	4	1-10	4	2-17	4
Announcement	TN750				1-10	7	1-10	7	2-17	7
Auxiliary Trunk	TN763C	4	1-18	4	1-10	4	1-10	4	2-17	4
Call Classifier	TN744		1-18		1-10		1-10		2-17	
CO Trunk	TN747B	8	1-18	4	1-10	4	1-10	4	2-17	4
Data Line	TN726B	8	1-18	4	1-10	4	1-10	4	2-17	4
DID Trunk	TN753	8	1-18	4	1-10	4	1-10	4	2-17	4
Digital Line	TN754B	8	1-18	4	1-10	4	1-10	4	2-17	4
DS1 Tie Trunk	TN722B	24	1-18	4						
DS1 Interface	TN767**	24	1-18	4	1-10	4	1-10	4	2-17	4
Expansion Interface	TN776		2,3	3	1,2	3	1,2	3	1,2	6
Expansion Interface	TN570		2,3	3	1,2	3	1,2	3	1,2	9
Hybrid Line	TN762B	8	1-18	4	1-10	4	1-10	4	2-17	4
ISDN-BRI Line	TN556	12	1-18	4	1-10	4	1-10	4	2-17	3,4
Maintenance/Test	TN771B				1-10	8			2-17	8
MET Line	TN735	4	1-18	4	1-10	4	1-10	4	2-17	4
Pooled Modem	TN758	2	1-18	4	1-10	4	1-10	4	2-17	4
Power Unit	TN755B		18	4	10	4	10	4	17	4
Speech Synthesizer	TN725B	4	1-18	4	1-10	4	1-10	4	2-17	4
Tie Trunk	TN760C	4	1-18	4	1-10	4	1-10	4	2-17	4
Tone-Clock	TN768		1	5						
Tone-Clock (Stratum 3)	TN780		1	5						
Tone Detector	TN748C		1-18	2	1-10	4	1-10	6	2-17	4

* See notes on next page.

** The TN464C circuit pack is used with the International G1.2SE system.

TABLE 2-D (continued).
Single-Carrier Cabinet—Universal Port Slots and Associated Circuit Packs

- Notes:**
1. Required instead of TN768 when connecting to an external Stratum 3 clock.
 2. TN1748C Tone Detector—one always required if the cabinet is the first or second Port Cabinet in the System. The TN748C is not required if the cabinet is the third Port Cabinet in the System.
 3. TN776 EI may be used when the BRI circuit packs (if any) are all on the PPN. Applies to BRI station sets and CallVisor ASAI. TN570 is required if any BRI circuit pack (voice set or CallVisor ASAI) is on an EPN since the TN570 is required for any extension of the Packet Bus to an EPN. Refer to Figure 2-6 for the Expansion Interface carrier/slot assignments based on the system configuration.
 4. Provided as required.
 5. The TN768 Tone Clock is required in Cabinet B of an EPN with duplication. The TN780 is required when connecting to an external Stratum 3 clock.
 6. One always required.
 7. Maximum of one per System. Mount in the Control Cabinet when possible.
 8. One TN771B required for a duplicated system when Packet Bus is activated.
 9. Provide instead of TN776 when BRI or CallVisor ASAI functions are supported.
 10. Using the hardware Configuration Layout record, assign circuit packs to available port slots on all completed Port Assignment Records.
 11. Determine how many ports are available on each type of circuit pack using Table 2-D. If a circuit pack contains less than eight ports, strike out (do not use) the unavailable slots on the Port Assignment Record associated with that circuit pack.

Some of the forms you will be completing require port information. When completing such a form, first determine the type circuit pack that is required. The type circuit pack for each feature, where required, is identified in "Chapter 4. System Features, Functions, and Services." Next, obtain the Port Assignment Record and select the next vacant port on the appropriate circuit pack. Then, complete the following Port Assignment Record items as required:

Jack #— to be completed by the installation technician. Used to denote the physical location of the jack.

Extension Number— This information can be taken from data obtained using *DEFINITY® Communications System Generic 1 and Generic 3—Planning and Configuration*, 555-230-600.

- old—enter the old extension number to be replaced
- new—enter the new extension number.

Bldg., Flr., Rm.— enter the identifying information for the location of the terminal or equipment.

Voice Terminal Type/Color— enter the voice terminal information.

Voice Terminal Adjunct— enter adjunct equipment associated with the terminal, for example, speakerphone, headsets, etc. This information can be taken from data obtained using the *DEFINITY® Communications System Generic 1 and Generic-Planning and Configuration*, 555-230-600.

Module— enter MPDM, DTDM, MTDM, 702A Data Module base (use with 7404D voice terminal), 703A DSU (use with the 7406D voice terminal), 7400A, 7400B, 7500B, Call Coverage, Feature, or Display module, as applicable.

Power— to be completed by the installation technician.

Blank— use as necessary.

User name/use— enter the name of the user or the feature name as appropriate, for example, SMDR. This information can be taken from data obtained using *DEFINITY® Communications System Generic 1 and Generic 3—Planning and Configuration*, 555-230-600.

Once the preceding information has been entered on the Port Assignment Record, enter the port network number on the System form you are completing. The port number consists of a network number (1 = PPN cabinet, 2 = EPN 2 cabinet, 3 = EPN 3 cabinet), the letter assigned the cabinet, and four numbers that consist of the slot number (01 to 18) and the port number (01 to 08 or 01 to 24). A port number example for a single-cabinet System (Control Cabinet only) with a circuit pack mounted in slot 02 with port 08 assigned is A0208.

Complete Circuit Pack Forms—Single-Carrier Cabinet (Account Team/Client)

Note: The Circuit Pack forms do not have to be completed if the System cabinet is equipped with the circuit packs at the time of administration.

The Circuit Pack forms allow the user to administer circuit packs to carrier slots before the circuit packs are actually installed in the carrier or cabinet. This then allows the System to be administered when the circuit packs have not yet been physically inserted in their appropriate slots. In order for any end-user equipment (voice terminals, data terminals, etc.) to be translated into the System, either a circuit pack must be physically inserted in the appropriate slot or be logically installed using the Circuit Pack form. The number of Circuit Pack forms and associated pages to be completed is dependent on the System configuration. For example, a PPN with Duplication requires one control cabinet (use one circuit pack CARRIER 1A form), one duplicated control cabinet (use one circuit pack CARRIERS 1A form), and up to two port cabinets (use two circuit pack CARRIER xy forms—one for each port cabinet). For a PPN cabinet, mark each Circuit Pack form as "PPN." In this example, four forms must be completed. When an EPN is supported, the EPN requires one circuit pack CARRIER 2A form to be completed in addition to a circuit pack CARRIER xy form for each port cabinet in the EPN configuration. Mark EPN Circuit Pack forms as "EPN 1" or "EPN 2" as appropriate. Use the circuit pack code (TN number) when assigning the circuit packs to slots.

The Circuit Pack forms are shown in Screens 2-1 and 2-2. The information entered on the form can be taken from the Port Assignment Record.

The Circuit Pack administration forms consist of three sets of five pages each. One set is used for each port network (PPN, EPN 1, EPN 2) with one page for each of the port carriers on the specified network. Page 1 is for Carrier A, Page 2 is for Carrier B, and so on. Page 1 of the PPN has 14 circuit pack slots. Check the Control carrier J-number to be sure the physical slots exist for the circuit packs you are administering. When the form is administered, the System will not validate that the slot you are administering actually exists. The rest of the pages have 20 circuit pack slots. The single-carrier cabinet system does not have 20 slots or an E Carrier. However, the form shows 20 slots and the page for the E Carrier is administrable. Do not administer slots or carriers that you do not physically have. The A Carriers of the EPNs have 19 slots and the rest of the carriers (B-E) have 20.

CHAPTER 3. ADMINISTRATION COMMANDS

Overview

The following provides a description of the System's Command Line feature and a summary of the administration commands and associated error messages that support the feature. A user, via entry of a single command line on the System's G3 Management Terminal, can easily communicate with the System to perform various tasks associated with the administration and implementation of the System.

The Command Line feature is divided into the following four categories:

- Administration—Used to administer data associated with terminals, facilities, and system parameters.
- Maintenance—Used to perform maintenance on objects such as trunks, terminals, ports, and system control modules. Also used to obtain displays of error and alarm logs. Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Maintenance*, 555-204-105, for information associated with maintenance commands.
- Measurements—Used to obtain displays of measurement reports for trunk groups, hunt groups, attendants, etc. Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—System Reports*, 555-204-510, for information associated with measurement commands.
- System—Used to change passwords and administer the command authorization structure. Refer to *DEFINITY® Communications System Generic 1 and Generic 3—System Management*, 555-230-500, for information associated with system commands.

You must be logged on the system via the G3 Management Terminal before an administration command can be entered. Procedures on how to log on to and log off the system and descriptions of the various management tasks that can be performed are provided in *DEFINITY® Communications System Generic 1 and Generic 3—System Management*, 555-230-500.

Command Structure

An administrative command is made up of multiple words that instruct the System to do a specific task. The command is made up of Action, Object, and, depending on the command type, Qualifier words.

The Action word is the first word entered on the command line and specifies the operation to be performed (for example, "add," "change," "remove"). The Object word is the second phrase entered on the command line and specifies the specific object to be operated on, for example, a station, trunk group, or hunt group. Finally, the qualifier can be one or more key words or digits used to further identify or complete the object. The qualifier can be mandatory or optional, depending on the command or system configuration.

Only one command line can be entered at a time. For example, the command required to add a station with extension number 1212 is shown below:

add station 1212

In the above example, **add** is the Action word, **station** is the Object word, and **1212** is the Qualifier word.

Spaces must be used to separate the Action, Object, and Qualifier words on the command line.

The System provides an on-line Help function (by pressing **[HELP]** which can be used to obtain a list of commands or to provide information for completing commands. As stated earlier, maintenance, measurement, and system commands and their associated add/object/qualifier words are not covered here. Refer to the appropriate manual for that information.

Action Commands

Action commands are used to administer the System's features, functions, and services. The following provides a summary of the action words and their associated object words.

Add— The associated object being added, such as "attendant," must not exist in the System for the **add** command to be accepted. The following object words are available for use with the **add** command. They can be displayed by pressing **[HELP]** after entering the action word "add."

● abbreviated-dialing	● ds1	● signaling-group
● access-endpoint	● hunt-group	● station
● administered-connection	● intercom-group	● term-ext-group
● attendant	● modem-pool	● trunk-group
● coverage	● personal-CO-line	● vdn
● data-module	● pickup-group	

Change— the associated object being changed, such as circuit packs, must be currently administered in the System before the **change** command can be accepted. The **change** command cannot be used to identify a new object or to remove an existing object. The following object words are available for use with the **change** command. They can be displayed by pressing **[HELP]** after entering the action word "change."

Change Command—Object Words (Continued)

● a a r	● data-module	● paging
● abbreviated-dialing	● dial-plan	● personal-CO-line
● access-endpoint	● digit-absorption	● pickup-group
● adjunct-controlled-agent	● feature-access-code	● remote access
● administered-connection	● hunt-group	● report-scheduler
● alias	● intercom-group	● rhnpa
● alphanumeric-dial-table	● intra-switch-smdr	● route-pattern
● announce	● isdn	● signaling-group
● ars	● feature-access-codes	● sit-treatment
● attendant	● hunt group	● station
● authorization-code	● intercom-group	● synchronization
● circuit-pack	● isdn	● system-parameters
● communication-interface	● ixc-code	● term-ext-group
● console-parameters	● listed-directory-numbers	● time-of-day
● cor	● measured coverage-path	● toll
● cos	● measured principal	● trunk-group
● coverage	● modem-pool	● vdn
		● vector

Display— allows viewing of parameters associated with a specific object/qualifier. If the command "display station 4444," is entered, for example, the voice terminal screen form currently administered for extension 4444 is displayed. If the "print" qualifier is entered, for example, "display station 4444 print," the form is printed on the printer associated with the G3 Management Terminal. The following object words are available for use with the display command. They can be displayed by pressing **[HELP]** after entering the action word "display."

List— displays parameters associated with groups of objects. This command is used to obtain a list of all, or a selected range of, voice terminals, trunks, and other features that have been administered. The list command and its associated qualifiers can be used to retrieve data for all the ports in the System, or for a specified subset of ports. The following object words are available for use with the **list** command. They can be displayed by pressing **[HELP]** after entering the action word "list."

- aar
- abbreviated dialing
- aca-parameters
- access-end point
- administered-connection
- a r s
- authorization-code
- bcms agent
- bcms split
- bcms system
- bcms trunk
- bridged-extensions
- configuration
- coverage
- data-module
- do-not disturb
- emergency
- extension-type
- groups-of extension
- history
- hunt-group
- intercom-group
- modem-pool
- monitored-station
- partitioned-group
- performance
- personal-CO-line
- pickup-group
- pms-down
- report scheduler
- route-pattern
- signaling-group
- station
- term-ext-group
- t o l l
- trunk-group
- vdn
- vector
- wakeup

Monitor— allows viewing of current status information of the facility indicated by the object word. The following object words are available for use with the **monitor** command. They can be displayed by pressing **[HELP]** after entering the action word "monitor."

- bcms split
- bcms system
- security-violations

Remove— displays the screen form for the associated object word. Pressing **[CENTER]** deletes the object from the System. Pressing **[CANCEL]** cancels the remove requested. The following object words are available for use with the **remove** command. They can be displayed by pressing **[HELP]** after entering the action word "remove."

● abbreviated-dialing	● ds1	● report-scheduler
● access-endpoint	● hunt-group	● signaling-group
● administered connection	● intercom- group	● station
● attendant	● modem-pool	● term-ext-group
● coverage	● personal-CO-line	● trunk-group
● data-module	● pickup-group	● v d n

Status— displays the operational status of the facility indicated by the object word. A complete description of all status commands is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i Maintenance*, 555-204-105. The following object words are available for use with the **status** command. They can be displayed by pressing **[HELP]** after entering the action word "status."

● attendant	● link	● station
● data-module	● pms-link	● synchronization
● interface	● processor-channel	● trunk
● journal-link	● smdr-link	

Command Entry

Two or more keywords are needed to specify a complete command. Each keyword is delimited by a space character or a command line terminator (that is, pressing **[RETURN]** or **[TAB]**). All the keywords for a specific command may be entered at the same time or each keyword may be entered separately followed by a command line terminator. If each keyword is entered separately, **[HELP]** can be pressed to obtain help for the next part of the command. The user is prompted at each level of the command line entry with the original prompt and the command words already entered. At the command level following login, the user is prompted with the prompt **enter command:**.

A completed command line must be terminated by a command line terminator. If an error is encountered, the System provides a prompt at the level where the error occurred, the remainder of the command line will be ignored, and an error message will be displayed.

If just one keyword of the command is entered at a time followed with a command line terminator, the System provides a prompt for the next keyword of the command. The prompt is composed of the command line prompt and the previously accepted keywords appended to it. If an error is encountered, an error message will be displayed and a prompt requesting reentry of the keyword.

If a complete command containing one or more invalid words is entered (for example: "display dialplan 402"), the command will be accepted up to the first invalid word and the following message will be displayed:

"xxx" is an invalid identifier; press RETURN to execute modified command

The remainder of the command line will be rejected. If **[CANCEL]** is pressed, the command will be aborted. If the back tab key is pressed, the last word accepted from the command will be deleted.

Help Facilities

At any point in the command hierarchy or on the command line, the Help key can be pressed to obtain help. The System responds with a message which depends on the current level of the command hierarchy. If the level requires a particular keyword (that is, the level is an Action or Object level), a list of the valid keywords at that level is displayed. If the level is the Qualifier level, a message is displayed describing the format and the type of parameter required at that level. The use of brackets ([]) around keywords or qualifiers indicates that the entry of the keyword, qualifier, or the part of the qualifier enclosed in the brackets is optional.

The System will display only the commands that a user has permission to use and which are needed for particular system configurations. (User permissions are controlled by login and password assignments.) If a user does not have permission to use a particular object word, that object is removed from the user's help display at that level. If a user does not have permission to use any of the object words under a given level, the objects will be removed from the user's help display at that level. Similarly, if the system configuration does not require specific commands or objects, they are removed from the user's help display at the appropriate level. A duplicated system is the system configuration that requires additional object words and associated commands.

Special Command Line Functions

The following special command line functions are available:

- **Logoff**— Typing "logoff" at any command level will log the user off the System.
- **Cancel**— Pressing [**CANCEL**] at any level and after any character typed on the command line will; cancel the command, prompt for a new command at the login level, and clear the command path line.
- **Character Erase**— Pressing [**BACKSPACE**] will erase the character to the left of the cursor and will position the cursor at that position. If the cursor is at the first position, the back-space will cause the terminal bell to ring.
- **Help**— Pressing [**HELP**] displays a list of valid keywords for the current level or a message describing the format and the type of parameter expected at this level.
- **Word Delete**— Pressing the back tab key will erase the last word typed on the command line. If there are no words on the command line, word delete will backup one level along the hierarchal command structure. The command path line will be updated to reflect the word deletion. If the user is at the top level, the top level prompt will be redisplayed.
- **Command Line Terminator**— Pressing the [**RETURN**] or [**TAB**] will enter the characters typed at the current prompt into the System.
- **Print**— Typing "print" as part of a "display" or "list" command permits printing of all or part of the translation data of the specified object. If the "print" option is entered as part of other commands, the System returns an error message and a prompt for a correct command.
- **Schedule**— Adding the option "schedule" to the end of a command line will schedule that specific command.

When a special command line function is entered, information displayed on the screen that is not required is removed. For example, if help has been requested for a qualifier and then [**CANCEL**] is pressed, the display screen will be cleared.

Display Screen Format

For the command line interface, the display screen is made up of 27 lines of 80 characters each. The screen is partitioned as follows:

- Line 1. Line 1 is the command path line and is used to display the command line history, the active processing element (that is, control complex) in duplicated systems, and the page number.
- Line 2 through Line 22. These lines are used to display command output and multi-line help messages.
- Line 23. This line is the message line and is used to display single line help and error messages.
- Line 24. This line is the command line and is used for command entry. All commands are entered on this line. The line is divided into two sections. The first 64 characters on the line are used to display the current command, and the last 16 characters are used to display either the page number for the current command and the active switch processing element [(SPE) - in duplicated systems)], or the message **Please Wait** for commands which take longer than two seconds to respond.

When a command first executes, the command is displayed on the first section of the line. Also, for duplicated systems the active SPE is displayed on the second section of the line. This allows the user to associate the command context with the response of the command and to be aware of which SPE is presently active. The active SPE is either "PE A" or "PE B" for duplicated systems. The format for the command path line is:

action object [qualifier] page x of x PE A B

where the action, object, and qualifier words have been defined earlier. The page information only appears when System forms are displayed. The command path line is highlighted using the terminal's reverse video enhancement feature.

- Line 26 and Line 27. These lines are used to display the functions of the screen labeled programmable keys. Normally, these lines are blank.

Command Return Point

After a command has completed either successfully or unsuccessfully, the user is returned to the command level. The last command entered will remain on the command path line, until the next command line terminator is entered. When a command line terminator has been entered, the last command will be erased before the command path line is updated for the next command.

Restrictions

A user will be restricted from executing a command if:

- The user does not have the permission to execute the command, OR
- The system configuration does not require a command, OR
- The command is a member of a set of commands which are being used by another user.

Administration Commands

Table 3-A provides a summary of all administration commands. The summary is listed alphabetically by the system form or feature associated with the various commands. The complete command line is shown and consists of an action word, object word, and in several cases a qualifier word.

TABLE 3-A. Administration Commands

Form/Feature	Command, Line (Note)		
	Action	Object	Qualifier
AAR	list	route-chosen	Enter dialed number, ['partition' (1-8),] ['print' or 'schedule']
AAR Analysis Table	change	aar analysis	Enter digits between 0-9, 'x' or 'X' (dialed string) ['part' 1-8]
	display	aar analysis	Enter digits between 0-9 'x' or 'X' (dialed string) ['part' 1-8] ['print' or 'schedule']
	list	aar analysis	[start dialed string] ['count' 1-2000] ['rp' 1-254 or r1-r32] ['part' 1-8] ['print' or 'schedule']
AAR Digit Conversion	change	aar digit-conversion	Enter digits between 0-9 'x' or 'X'
	display	aar digit-conversion	Enter digits between 0-9 'x' or 'X' ['print' or 'schedule']
	list	aar digit-conversion	Enter ['start' matching pattern] ['count' (1-300)] ['print' or 'schedule']
Abbreviated Dialing—7103A List	add change display remove	abbreviated-dialing 7103A-buttons abbreviated-dialing 7103A-buttons abbreviated-dialing 7103A-buttons abbreviated-dialing 7103A-buttons	— — ['print' or 'schedule'] —
Abbreviated Dialing—Group List	add change display list remove	abbreviated-dialing group abbreviated-dialing group abbreviated-dialing group abbreviated-dialing group abbreviated-dialing group	1-100 (or 'next') 1-100 1-100 ['print' or 'schedule'] [xx]('count' 1-100) ['print' or 'schedule'] 1-100
Abbreviated Dialing—Enhanced List	add change display remove	abbreviated-dialing enhanced abbreviated-dialing enhanced abbreviated-dialing enhanced abbreviated-dialing enhanced	Enter form number between 0 and 9 Enter form number between 0 and 9 Enter form number between 0 and 9 Enter form number between 0 and 9
Abbreviated Dialing—Personal List	add	abbreviated-dialing personal	xxxx (extension number of assigned object with a personal list) and List 1-3 or 'next'
	change	abbreviated-dialing personal	xxxx (extension number of assigned personal list) and List 1-3
	display	abbreviated-dialing personal	xxxx (extension number of assigned personal list) and list
	list	abbreviated-dialing personal	1-3 ['print' or 'schedule'] xxxx (extension and 'count' 1-1600) ['print' or 'schedule']
Abbreviated Dialing—System List	add	abbreviated-dialing system	—
	change	abbreviated-dialing system	—
	display	abbreviated-dialing system	['print' or 'schedule']
	remove	abbreviated-dialing system	—
Access-Endpoint	add	access-endpoint	xxxx (ext. or 'next')
	change	access-endpoint	xxxx (ext. or 'next')
	display	access-endpoint	xxxx (ext. or 'next') ['print' or 'schedule']
	duplicate	access-endpoint	xxxx (ext. or 'next')
	remove	access-endpoint	xxxx (ext. or 'next')
	list	access-endpoint	xxxx ['count' 1-400] ['print' or 'schedule']

Note: Brackets [] indicate the qualifier is optional.

Single Quotes (') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Command Line (Note)		
	Action	Object	Qualifier
Adjunct Controlled Agent Table	change display	adjunct-controlled-agent-table adjunct-controlled-agent-table	— ['print' or 'schedule']
Adjunct-Switch Application Interface	change display list list remove status	station station station hunt-group monitored-station station station bri-port xxxxx (extension number)	xxxxx (extension number) or ('next') xxxxx (extension number) xxxxx (extension number) ['start' extension] [count xxxxx] [print] [xxxxx] ('count' 1-1600) type ASA! ['print' or 'schedule'] xxxxx (extension number)
Administered Connection	add change display duplicate remove list	administered-connection administered-connection administered-connection administered-connection administered-connection administered-connection	1-128 (or 'next') 1-128 (or 'next') 1-128 (or 'next') ['print' or 'schedule'] 1-128 (or 'next') 1-128 (or 'next') 1-128 ['count' 1-128] ['print' or 'schedule']
Alias Station	change display	alias station alias station	— ['print' or 'schedule']
Alphanumeric Dialing Table	change display	alphanumeric-dial-table	— [print]
Announcements	change restore save	announcements announcements announcements announcements	['print' or 'schedule'] — —
ARS	list	route-chosen	Enter dialed number, ['partition' (1-8)], ['print' or 'schedule']
ARS Analysis Table	change display list	ars analysis ars analysis ars analysis	Enter digits between 0-9, 'x' or 'X' (dialed string) ['part' 1-8] ['min' 1-23] Enter digits between 0-9, 'x' or 'X' (dialed string) ['part' 1-8] ['min' 1-23] ['print' or 'schedule'] [start dialed string] ['count' 1-2000] ['rp' 1-254 or r1 - r32] ['part' 1-8] ['print' or 'schedule']
ARS Digit Conversion	change display list	ars digit-conversion ars digit-conversion ars digit-conversion	Enter digits between 0-9, 'x' or 'X' Enter digits between 0-9, 'x' or 'X' ['print' or 'schedule'] Enter ['start' matching pattern] ['count' (1-300)] ['print' or 'schedule']
ARS Toll Table	change display	ars toll ars toll	n:xxx (1-32:office code) n:xxx (1-32:office code) ['print' or 'schedule']
Attendant Console	add change display remove status	attendant attendant attendant attendantsnt attendant	1-7 1-7 1-7 ['print' or 'schedule'] 1-7 1-7
Authorization Codes	change display	authorization-code authorization-code	auth(4-7 digit number) auth(4-7 digit number)
Automatic Circuit Assurance	list display	aca-parameters measurements-aca buttons-location-aca	['print' or 'schedule'] ['print' or 'schedule']

Note: Brackets [] indicate the qualifier is optional.
Single Quotes (') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Command Line (Note)		
	Action	Object	Qualifier
Basic Call Management System	list	bcms agent	extension [time] [start time] [stop time] ['print' or 'schedule']
		bcms agent	extension [day] [start day] [stop day] ['print' or 'schedule']
		bcms split	1-99 (split number) [time] [start time] [stop time] ['print' or 'schedule']
		bcms split	1-99 (split number) [day] [start day] [stop day] ['print' or 'schedule']
		bcms system	[time] [start time] ['print' or 'schedule']
		bcms system	[day] [start day] ['print' or 'schedule']
		bcms trunk	1-99 (group number) [time] [start time] [stop time] ['print' or 'schedule']
		bcms trunk	1-99 (group number) [day] [start day] [stop day] ['print' or 'schedule']
		bcms vdn	extension [time] [start time] [stop time] ['print' or 'schedule']
		bcms vdn	extension [day] [start day] [stop day] ['print' or 'schedule']
	monitor monitor	bcms split bcms system	1-99 (split number) [print] [split number(s)/range][print]
Bridged Extensions	list	bridged-extensions	(enter assigned extension) ['print' or 'schedule']
Call Coverage Answer Group	add	coverage answer-group	1-200 (or 'next')
	change	coverage answer-group	1-200
	display	coverage answer-group	1-200 ['print' or 'schedule']
	remove	coverage answer-group	['print' or 'schedule'] 1-200
Call Coverage Path (without Hospitality Parameter Reduction Feature)	add	coverage path	1-600 (or 'next')
	change	coverage path	1-600
	display	coverage path	1-600 ['print' or 'schedule']
	remove	coverage path	['print' or 'schedule'] 1-600
Call Coverage Path (with Hospitality Parameter Reduction Feature)	add	coverage path	1-5 (or 'next')
	change	coverage path	1-5
	display	coverage path	1-5 ['print' or 'schedule']
	list	coverage path	['print' or 'schedule']
Call Vector	remove	coverage path	1-5
	change	vector	[1-256]
	display	vector	[1-256] ['print' or 'schedule']
Circuit Pack	list	vector	[1-256] ['count' 1-256] ['print' or 'schedule']
	change	circuit-packs	['print' or 'schedule']
	display	circuit-packs	port network[1-3] ['print' or 'schedule']

Note: Brackets [] indicate the qualifier is optional.
Single Quotes(' ') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered. <time> indicates the desired time should be entered in military time.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Command Line (Note)		
	Action	Object	Qualifier
Class of Restriction	change display list	cor cor partitioned_group	0-63 0-63 ['print' or 'schedule'] ['print' or 'schedule']
Class of Service	change display	cos cos	— ['print' or 'schedule']
Configuration	list	configuration all configuration board configuration stations confirmation trunks configuration control configuration carrier port network configuration software-versions	['print' or 'schedule'] 4 character [network(1-3)carrier(A-E) slot 1-20 ['print' or 'schedule'] ['print' or 'schedule'] ['print' or 'schedule'] ['print' or 'schedule'] 2 character cabinet (1-3) carrier (A-E) 1 character [1-3] ['long' or 'memory-resident'] ['print' or 'schedule']
Communication Interface Links: Interface Links Processor Channel Assignment Hop Channel Assignment	change change display display display status status	communication-interface communication-interface communication-interface communication-interface communication-interface link processor-channel	links processor channels hop-channels links ['print' or 'schedule'] processor channels ['print' or 'schedule'] hop-channels ['print' or 'schedule'] A1/A2/B1/B2 1-8 (1-8 for multi-carrier cabinet or 1-4 for single-carrier cabinet) ['print'] 1-64 (processor channel)
Console Parameters	change display	console-parameters console-parameters	— ['print' or 'schedule']
Data Modules	add change display duplicate list list remove status	data-module data-module data-module data-module data-module groups-of-extension data-module data-module	xxxx (extension or 'next') xxxx (extension number) xxxx (extension number) ['print' or 'schedule'] xxxx (extension number to be duplicated) (starting ext number) xxxx ('count') ['print' or 'schedule'] xxxx (extension number) ['print' or 'schedule'] xxxx (extension number) xxxx (extension number)

Note: Brackets [] indicate the qualifier is optional.
Single Quotes (' ') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Command Line (Note)		
	Action	Object	Qualifier
Dial Plan Record	change display	dialplan dialplan	— ['print' or 'schedule']
Digit Absorption	change display	digit-absorption digit-absorption	0-4 0-4 ['print' or 'schedule']
DS1 Circuit Pack	add change display list list remove	ds1 ds1 ds1 measurements ds1 measurements ds1-log ds1	[P]Css* [P]Css(board) [P]Css location location [P]Css
Feature Access Codes	change display	feature-access-codes feature-access-codes	— ['print' or 'schedule']
History	list	history	['print' or 'schedule']
Hospitality-Related System-Parameters	change display	system-paramaters hospitality system-parameters hospitality	— ['print' or 'schedule']
Hunt Groups (without Hospitality Parameter Reduction Feature)	add change display list remove	hunt-group hunt-group hunt-group hunt-group hunt-group	1-99 (or 'next') 1-99 1-99 ['print' or 'schedule'] ['print' or 'schedule'] 1-99
Hunt Groups (with Hospitality Parameter Reduction Feature)	add change display list remove	hunt-group hunt-group hunt-group hunt-group hunt-group	1-5 (or 'next') 1-5 1-5 ['print' or 'schedule'] ['print' or 'schedule'] 1-5
Intercom—Group	add change display list remove	intercom-group intercom-group intercom-group intercom-group intercom-group	1-32 (or 'next') 1-32 1-32 ['print' or 'schedule'] ['print' or 'schedule'] 1-32
Inter-Exchange Carrier Codes Intra-switch SMDR	change display change display intra-switch-smdr	ixc-codes ixc-codes intra-switch-smdr	— ['print' or 'schedule']
Listed Directory Numbers	change display	listed-directory-numbers listed-directory-numbers	— ['print' or 'schedule']

* [P] — part of qualifier representing pnn
 C — part of qualifier representing carrier (A-F)
 ss — part of qualifier representing slot number (01-20)

Single Quotes (' ') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Action	Command Line (Note)	
		Object	Qualifier
Loudspeaker Paging and Code Calling Access	change display change display	paging loudspeaker paging loudspeaker paging code-calling-ids paging code-calling-ids	['print' or 'schedule'] — ['print' or 'schedule']
Measured Coverage-Path	display measured coverage-path ['print' or 'schedule']	measured coverage-path	
Measured Principal	change display	measured principal measured principal ['print' or 'schedule']	
Modem Pool Group	add change display list remove	modem-pool num modem-pool num modem-pool num modem-pool num modem-pool num	[1-5] [1-5] [1-5] ['print' or 'schedule'] ['print' or 'schedule'] [1-5]
Network Facilities	change display	isdn network-facilities isdn network-facilities	['print' or 'schedule']
Personal CO Line Group	add change display list remove	personal-co-line personal-co-line personal-co-line personal-co-line personal-co-line	1-40 (or 'next') 1-40 1-40 ['print' or 'schedule'] ['print' or 'schedule'] 1-40
Pickup Groups (without Hospitality)	add change display list remove	pickup-group pickup-group pickup-group pickup-group pickup-group	1-800 (or 'next') 1-800 1-800 ['print' or 'schedule'] ['print' or 'schedule'] 1-300
Pickup Groups (with Hospitality)	add change	pickup-group pickup-group	1-5 (or 'next') 1-5
Reduction Feature)	list remove	pickup-group pickup-group	1-5 ['print' or 'schedule'] ['print' or 'schedule'] 1-5
Ports	display	port	assigned port ['print' or 'schedule'] port-network
Property Management System	list	pms-down	['from' time 'to' time]
Remote Home Numbering Plan Area	change display	rhnpa rhnpa	Enter RHNPA and code n:xyy n(1-32) x(0-9) y(0-9) y(0-9) (Table No, 1-32:office code = code 000-999) Enter RHNPA and code n:xyy n(1-32), x(0-9) y(0-9) (Table No. 1-32:office code = code 000-999) ['print' or 'schedule']
Report Scheduler	change list remove	report scheduler report scheduler report scheduler	1-50 [job identification number] ['print' or 'schedule'] 1-50 [job identification number]
Remote Access To An Internal Station	change display	remote access remote access	['print' or 'schedule']
Routing Pattern	change display	route-pattern route-pattern route-pattern	1-254 1-254 ['print'] Enter ['trunk' (1-99)] ['service'/feature name string] ['print' or 'schedule']

Note: Brackets [] indicate the qualifier is optional.

Single Quotes (' ') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Command Line (Note)		
	Action	Object	Qualifier
Security Violation Notification	clear	measurements security-violations	
	display	svn-button location [print]	
list		measurements security-violations [print or 'schedule']	
	monitor	security-violations	[print]
Signaling Group	add	signaling-group	1-8 or 'next'
	change	signaling-group	1-6
	display	signaling-group	1-6 [print or 'schedule']
	list	signaling-group	1-6 [print or 'schedule']
Special Information Tones	remove	signaling-group	1-6
	change	sit-treatment	
display		sit-treatment	[print or 'schedule']
	display		
Stations	add	station	xxxx (extension number)(or 'next')
	change	station	xxxxx (extension number)
	display	station	xxxxx (extension number)
			[print or 'schedule']
	display	station	xxxxx 1-1600 [print or 'schedule']
	duplicate	station (extension)*	[count 1-16][start extension]
			[board address] [one-ep]
	list	bridged-extension	xxxxx (extension number)
			[print or 'schedule']
	list	configuration stations	[print or 'schedule']
	list	do-not-disturb group	[print or 'schedule']
	list	do-not-disturb	start extension and 'count'
			[print or 'schedule']
	list	emergency	start and stop times
			[print or 'schedule']
	list	extension-type	[extension][count 1-1600]
	list	extension-type	[extension] 'count' [number] [print]
	list	groups-of-extension	xxxx (extension number)
			[print or 'schedule']
	list	monitored-station	[start extension] [count xxxxx] [print]
	list	station	[xxxxx]('count' 1-1600)
			[print or 'schedule']
	list	station	[xxxxx]('count' 1-1600) type ASAI
			[print or 'schedule']
	list	station	[xxxxx]('count' 1-1600) port
			[print or 'schedule']
	list	station	[extension] [type (station type)] [port 1-3 (port number)]
			[count(n)] [print or 'schedule']
	status	station	xxxxx(extension)

- * extension-voice terminal extension number to be duplicated.
start extension-starting extension used for finding unassigned extensions.
board addr—starting board address for finding unassigned ports.
'count' (1-16)—is the number of station forms to generate.

Note: Brackets [] indicate the qualifier is optional.
Single Quotes (') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered. <time> indicates the desired time should be entered in military time.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Command Line (Note)		
	Action	Object	Qualifier
Stations (Contd.)	list	wakeup activity	[print]
	list	wakeup incomplete	['from'<time>'to'<time>]
	list	wakeup requests	['from'<time>'to'<time>]
	list	wakeup summary	[print]
	list	wakeup station	extension
	list	wakeup sys-failure	[print]
	remove status	station synchronization	xxxxx (extension number) [print]
Synchronization Plan	change display	synchronization synchronization	— ['print' or 'schedule']
System-Parameters	change	system-parameters features	—
	display	system-parameters features	['print' or 'schedule']
	status	journal-link	pms-log/wakeup-log
	status status	pms-link smdr-link	[print]
Terminating Extension Group	add	term-ext-group	1-32 (or 'next')
	change	term-ext-group	1-32
	display	term-ext-group	1-32 ['print or 'schedule']
	remove	term-ext-group	['print' or 'schedule']
Time	display	time	[print]
	display	time-of-day	1-8 (plan number) ['print' or 'schedule']
	change	time-of-day	1-8
Toll Analysis	change	toll	Enter digits between 0-9, 'x', or 'X' [min 1-23]
	display	toll	Enter digits between 0-9, 'x' or 'X' [min 1-23] ['print' or 'schedule']
	list	toll all	['start' dialed-string] ['count' (1-1000)] [print]
	list	toll toll-list	['start' dialed-string] ['count'] (1-1000)] [print]
	list	toll restricted-call	['start' dialed string] ['count'] (1-1000)] [print]
	list	toll unrestricted-call	['start' dialed string] ['count'](1-1000)). [print]

Note: Brackets [] indicate the qualifier is optional.
 Single Quotes (' ') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered. <time> indicates the desired time should be entered in military time.

TABLE 3-A (continued).
Administration Commands

Form/Feature	Command Line (Note)		
	Action	Object	Qualifier
Trunk Groups:			
Access	add*	trunk-group	1-99 (or 'next')
Advanced Private Line Termination	change	trunk-group	1-99 or TAC X...
Central Office	display	trunk-group	1-99 or TAC X...['print' or 'schedule']
Customer-Provided Equipment	change	isd n	network facilities
Digital Multiplexed Interface	display	isd n	network facilities
Direct Inward Dialing	display	isd n	cpn-prefix
Foreign Exchange	list	trunk-group	['print' or 'schedule']
ISDN-PRI	list	configuration trunks	['print' or 'schedule']
Release	remove	trunk-group	trunk-group
Tandem	change	isd n	cpn-prefix
Tie	change	isd n	network facilities
WATS	change	trunk-group tacg	yyy (1-3 digit trunk access code)
	remove	trunk-group tac	yyy (1-3 digit trunk access code)
	display	trunk-group tac	yyy (1-3 digit trunk access code)
	status	trunk	1-99 [1-99] (group/member number)
Vector	change	vector	1-256
	display	vector	1-256
	list	vector	[xxx] ('count' 1-256) ['print' or 'schedule']
VDN	add	vdn	xxxxx (extension number of VDN to be added)
	change	vdn	xxxxx (extension number of VDN to be changed)
	display	vdn	xxxxx (extension number of VDN to be displayed) ['print' or 'schedule']
	remove	vdn	xxxxx (extension number of VDN to be removed)
	list	vd n	xxxxx (extension number of VDN to be listed) ('count' 1-500) ['print' or 'schedule']

* With the Hospitality Parameter Reduction Feature, only 50 trunk groups can be added.

Note: Brackets [] indicate the qualifier is optional.
 Single Quotes (' ') indicate the word inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered. <time> indicates the desired time should be entered in military time.

Error Messages

The following is an alphabetical listing and description of the error messages associated with administration. An error message may be displayed at any time during use of the G3 Management Terminal as the result of an improper input command, incorrect input data, exceeding a range, not specifying data in fields that require input, etc.,. In some cases, **[HELP]** can be pressed following an error message to obtain an on-screen help message associated with the current operation. The following descriptions provide an additional aid that can be used in the process of resolving error messages.

In many cases, when an error message is displayed, the data being entered as part of the input command is displayed at the beginning of the message. This data is not included in the following listings. For example, if the error message "39 Invalid toll list reference number" is displayed, locate the message "Invalid toll list reference number" for a description of the message.

If an error message is not clear or you require additional help to resolve the message, proceed as follows:

1. Press **[HELP]** to obtain an associated help message. Valid field entries, command line entries, etc., can be displayed.
2. Refer to the error message in the following listing for an additional description of the message.
3. Consult the form instructions provided elsewhere in this manual for a description of the form and each field on the form.
4. Consult your System Administrator.

Note that the following does not include error listings associated with System forms not covered in this manual. For example, the Maintenance-Related System-Parameters form. When administering forms of this type, consult the appropriate manual for associated form and field descriptions. The Maintenance-Related System-Parameters form is covered in the *DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test*, 555-230-104.

Note: Error message descriptions associated with features not currently covered in this manual such as Call Associated Temporary Signaling Connections (CA-TSCs) and Non-Call Associated Temporary Signaling Connections (NCA-TSCs) are marked as "Reserved for future use." The features and associated error message descriptions will be provided in a future release of this manual.

TABLE 3-B. System Error Messages

Error Message	Description
# sign must be at the end of the digits	On the AAR/ARS Digit Conversion form—If the Replacement String field entry contains a # sign, it must be at the end of a digit string.
ARS Partitioning and either ARS or Private Networking must be activated	The ARS Partitioning and either the ARS or Private Networking features must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
ARS and either Private Networking or Uniform Dial Plan must be activated	The ARS feature and either the Private Networking or UDP features must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
ARS/AAR Digit Conversion feature not assigned	The ARS/AAR Digit Conversion feature must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
ARS/AAR Partitioning feature not assigned	The ARS/AAR Partitioning feature must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
ASAI Interface feature not assigned	The ASAI Interface feature must be enabled on the System-Parameters customer options form before associated forms and fields on forms can be administered.
ASAI Routing capability and/or Vectoring (Basic) feature not assigned	On the Call Vector form, the ASAI Routing or Basic fields must be enabled before the associated Call Vector command can be entered on the form.
	The ASAI and/or Vectoring (Basic) feature must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
Abbreviated Dialing Enhanced List feature not assigned	The Abbreviated Dialing-Enhanced List feature must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
Abbreviated dialing index invalid	Press [HELP] to obtain a list of valid entries or consult the Abbreviated Dialing form coverage in Chapter 6 for additional information.
Absorption list entries mixed; chose from Group I or Group II	On the Digit Absorption form—For the Absorption Treatment Assignment fields, all choices for the digits 0 through 9 must be taken from either Group I or Group II, but not both.
Access, dmi-mos, sddn, tandem, and tie are not valid for a CBC trunk group	On the ISDN-PRI Trunk Group form—the Service/Feature field entry (Page 2) cannot be "access," "dmi-mos," "sddn," "tandem," or "tie" for a Service Type field entry (Page 1) of "cbc."

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Activation times within the same day must be unique	On the ISDN-PRI Trunk Group form—The Act Time field entry (Pages 4-11) must be unique for each entry associated with a given day of the week.
Add primary DS1 as NFAS trunk board or remove its ports from trunk groups	On the Signaling Group form—Changing the Associated Signaling field entry from "y" (FAS) to "n" Nonfacility Associated Signaling (NFAS) requires that the Trunk Brd and associated Interface Id fields be completed. The Trunk Brd entries cannot be ports associated with a DS1 that is used in a FAS Signaling Group. In addition, the Trunk Brd entries must include the DS1 circuit pack assigned the Primary D-Channel or trunk ports associated with the DS1 must be removed from trunk groups.
Adjunct Call Control Group feature not assigned	The Adjunct Call Control Group option must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
Adjunct Routing Group feature not assigned	The Adjunct Routing Group option must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.
Adjunct controlled splits must be "ucd"	On the Hunt Group form—When the Controlling Adjunct field entry is "bx.25," or "asai," the Group Type field entry must be "ucd."
Administered NCA-TSC dublicately assigned; please select another	On the gateway form, the signaling group and administered Non-Call Associated Temporary Signaling Connection (NCA-TSC) pair have been dublicately assigned.
Administered NCA-TSC not assigned; please select another	On the gateway form, an attempt was made to use an NCA-TSC which has not been administered.
Administered NCA-TSC not used for gateway; please select another	On the gateway form, an attempt was made which is to use an NCA-TSC which is not used for gateway application.
Administered codes must be removed if length is decreased	On the Feature-Related System-Parameters form—The Authorization Code Length field entry cannot be reduced if there are AC codes of a greater length currently administered on the Authorization Codes form. You must remove or reduce the length of the AC codes first.
Administration of Called Number requires Called Len	On the ISDN-PRI Trunk Group form—If the Called Len field has an entry (Page 2), its associated Called Number field must have an entry.
Agents in group must be removed from adjunct controlled agent table	On the Hunt Group form—You cannot remove agent extensions from the hunt group until the extensions are logged into another hunt group 01 are removed from the Adjunct Controlled Agent Table.
All administered connection numbers used; cannot assign next number	Displayed when using the "add administered-connection" command. Indicates that the System maximum for administered connections (128) has been reached.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
All ports are assigned	Assign a port on another circuit pack of the same type or function.
An assigned ASA/BRI link extension must be specified	On the Call Vector form—For an "adjunct" command entered on the form, you must complete the routing link extension field.
An assigned announcement extension must be specified	Enter a valid announcement extension. Enter the "display announcements" command, if required, to display the administered announcement extensions.
An assigned data module extension must be specified	Enter an administered data module extension. Enter the "list data-module" command, if required, to list assigned extensions.
An assigned extension or attendant (0) must be specified	Enter a valid extension number or enter "0" for the attendant.
An assigned station or individual attendant extension must be specified	Enter an assigned station extension or enter "0" for the attendant. Enter the "list station" command, if required, to list assigned extensions.
Announcement Delay must be specified	On the Hunt Group form—If the First or Second Announcement field(s) has an entry, then their associated First or Second Announcement Delay fields must also have an entry.
Announcement data module already exists	The Recorded Announcement Data Module form (associated with the TN750 Announcement circuit pack) has already been administered.
Assignment of BRI extensions on data extension buttons not allowed	Because one button transfer to data is not allowed for BRI, data extension buttons are not allowed for BRI data extensions.
At least 1 zone must be specified for all-zones data assignment	On the Loudspeaker Paging Access form—Assign at least 1 zone.
Attendant cannot be specified for this field	On the Dial Plan form—A First Digit Table entry of "0" is not a valid entry for this field. "0" is reserved as the first digit for the attendant.
AUDIX Extension cannot be blank if message center is Remote AUDIX	On the Hunt Group form—If the Message Center field entry is "remote-audix," then the AUDIX Extension field must have an entry.
AUDIX application previously assigned in Processor Channel form	On the Processor Channel Assignments form—Only one link and associated channel can be assigned to AUDIX.
AUDIX application previously assigned in another Signal Group	(Reserved for future use)
Authorization Code cannot begin with a 1	On the Authorization Codes form—The AC field entry cannot begin with a "1."
Authorization Codes feature not assigned	The Authorization Codes feature must be enabled on the System-Parameters Customer Options form before associated forms and fields on forms can be administered.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Automatic Call Distributing (ACD) feature not assigned	The ACD feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Automatic Route Selection (ARS) feature not assigned	The ARS feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Available message sizes are 260, 256, 244, and 128	On the ISDN-PRI Trunk Group form-The Max Message Size to Send field must be set to either "260," "256," "244," or "128."
BCMS agents exceed maximum-remove excess before changing measured value	On the Hunt Group form—If the Measured field has an entry of "external," "internal," or "both," remove appropriate agents before changing the Measurement Interval field on the Feature-Related System Parameters form.
BRI: B channel data not allowed on multipoint port	BRI supports 2 B channels. Because the system does not allow call blocking, only 2 objects (2 voice, 2 data, 1 voice and 1 data, and 1 integrated voice/data) may be administered per port. Because there is a user already assigned on this port the endpoint being administered can only be a stand-alone voice or stand-alone data endpoint.
BRI: Default SPID not unique on port; please select another extension	This applies to the duplicate station command which allows entering of extensions. If a particular extension being assigned was not used in the system as an extension but the number has been assigned as a Service Profile Identifier (SPID) of a BRI endpoint this extension may not be used.
BRI: TEI "partner"; please select another port.	Fixed Terminal Endpoint Identifier (TEI) sets are not supported in multipoint configuration. Since there is a fixed TEI endpoint administered on this port, this port may not be used in multipoint configuration.
BRI: Fixed TEI not allowed on multipoint port	Fixed Terminal Endpoint Identifier (TEI) sets are not supported in multipoint configuration. Because there is a user already assigned on this port, the endpoint being administered must be an automatic TEI endpoint.
BRI: No B channels available; please select another port.	BRI supports 2 B channels. Because the system does not allow call blocking, only 2 objects (2 voice, 2 data, 1 voice and 1 data, and 1 integrated voice/data) may be administered per port. This message indicates that both B channels were already allocated on this port to 1 integrated voice/data endpoint which uses one B channel for voice and one for data.
BRI: Non SPID "partner"; please select another port.	SPIDs are required so that endpoints configured in multipoint configuration can be identified. Since there is an endpoint without a SPID administered on this port, this port may not be used in multipoint configuration.
BRI: SPID must be assigned on multipoint port	SPIDs are required so that endpoints configured in multipoint configuration can be identified. Because there is a user already assigned on this port the endpoint being administered must have SPID initialization capability.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
BRI: SPID must be unique on a port.	SPIDs are required so that endpoints configured in multipoint configuration can be identified. Therefore, SPIDs must be different for all endpoints on the same port.
BRI: Service SPID and any other SPID on the system cannot be same.	All SPIDs assigned to the endpoints must be different from the Service SPID.
BRI: Two users already assigned to this port please select another	BRI supports up to two endpoints per port. This message indicates that either 2 voice endpoints, 2 data endpoints, or 1 voice and 1 data endpoint are already assigned on this port.
Band number out of range	On the Routing Pattern form—The Band field entry must be within the range of 0 through 255.
Barrier code must be "none" for blank barrier code length	On the Remote Access form—If the Barrier Code Length field has no entry, the first Barrier Code field must have an entry of "none."
Basic Call Management System (BCMS) feature not assigned	The Basic Call Management System Measurements feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Board suffix associated with this port incompatible with Abandoned Call Search	The Abandoned Call Search feature requires trunk port assignments on a TN747B Central Office Trunk circuit pack.
Both Idle Appearance Preference and Auto Answer cannot be y(es)	On a Station form—The Auto Answer and Idle Appearance Preference fields cannot both be administered as "y."
Bridged appearances must be removed before changing from an analog station type	Remove "abrdg-app" feature buttons from other voice terminals that point to this terminal before changing the Type field entry.
Bridged appearances must be removed before changing to an analog station type	Remove "brdg-app" feature buttons from other voice terminals that point to this terminal before changing the Type field entry.
Bridged appearances must be removed before removal	Remove all bridged appearance feature buttons from other voice terminals that point to this terminal before removing the station.
Busyout MIS before adding/changing/removing measured object	The CMS must be "busied-out" before the associated object can be added, changed, or removed (use the command "busyout link_" if appropriate).
Busyout MIS before adding/removing a VDN	The CMS must be "busied-out" before the associated object can be added, changed, or removed (use the command "busyout link_" if appropriate).
Button type does not meet min or max requirements	On the Station/Attendant Console form—The feature button administration is not valid. Consult the Voice Terminal—General coverage in Chapter 6 for feature button characteristics and descriptions.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Button type invalid for a display module	On the Station/Attendant Console form—Assign only display-type feature buttons on display module forms. Consult the specific Voice Terminal coverage in Chapter 6 for a list of valid display-type feature buttons.
Button type invalid for station without a display module	On the Station form—Do not assign a display-type button on a station without a display. Consult the specific Voice Terminal coverage in Chapter 6 for a list of valid feature buttons.
Button type must be call appearance	On the Station Form—Only call appearance buttons can be administered in this field.
Button type not allowed on this station type or module	On the Station form—The feature button type is not valid for this station type. Consult the specific Voice Terminal coverage in Chapter 6 for a list of valid feature buttons.
COR must be specified	Enter an appropriate COR in the range of 0 to 63.
CPN prefix must be 10 digits for attendant extension	On the Called Party Number (CPN) Prefix form—The CPN Prefix administered for the attendant must be 10 digits in length.
Call Work Codes feature not assigned	The Call Work Codes feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Call appearance button type not allowed	On the Station/Attendant Console form—A call appearance button cannot be administered in this field.
Called Len cannot be less than length of Called Number	On the ISDN-PRI Trunk Group form—The Called Len field entry (Page 2) cannot be less than the number of digits in the associated Called Number field.
Can only accept codeset 6 or 7	On the ISDN-PRI Trunk Group form—The Display, Traveling Class Mark (TCM), Lookahead Codeset field entry can only be a "6" or a "7."
Can only modify name when assigned to an active Administered Connection	On the Access Endpoints form—The Name field can only be modified if the Access Endpoint is involved in an active administered connection (that is, the AE is assigned to an Originator or a Destination field on an Administered Connection form and the connection is active).
Cannot administer 64K-data if the DS1 has ZCS or RBS	On the Access Endpoints (AE) form—The Communications Type field entry cannot be "64k-data" unless the DS1 circuit pack assigned the Port field has its Zero Code Suppression (ZCS) field set to "zcs" or its Signaling Mode field set to "robbed-bit" (RBS).
Cannot administer Announcement Delay without Announcement Extension	On the Hunt Group form—The First or Second Announcement Delay fields cannot be administered unless their associated First or Second Announcement Extension fields have an entry.
Cannot administer an ASAI station with a data module	On the Station form—You cannot administer a data module form when the Set Type field entry is "asai."

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Cannot assign port 24; it is reserved for signaling channel	On the associated DSI Circuit Pack form—If the Signaling Mode field entry is "isdn-pri" or "common-chan," the circuit pack's 24th channel is reserved for the signaling channel (that is, D-Channel) and cannot be assigned as a port interface.
Cannot be entered if BRI/ASAI end-points are administered	This is a Maintenance-Related System Parameters form error. Consult the Installation and Test manual (555-204-104) for additional information.
Cannot be entered if packet-control is installed	This is a Maintenance-Related System Parameters form error. Consult the Installation and Test manual (555-204-104) for additional information.
Cannot bridge onto an analog station	On the Station form—You cannot assign a "brdg-appr" feature button that points to an analog station. Either enter an appropriate extension number for the "brdg-appr" button or assign an "abrdg-appr" button that points to the analog station.
Cannot change Measured field while changing Controlling Adjunct field	On the Hunt Group form—After changing the Measured field entry, submit the form. Then, change the Controlling Adjunct field entry.
Cannot change group type if group is assigned	On the Modem Pool Group form—The Group Type field cannot be changed until other fields on the form associated with the current Group Type are also changed.
Cannot change permissions for the specified login	You cannot change the permissions associated with the specified login. Consult the System Administrator for assistance.
Cannot change the specified permission	You cannot change the permissions. Consult the System Administrator for assistance.
Cannot change while port installed	The field entry cannot be changed if any associated DS1 circuit pack ports are administered in the System.
Cannot change. Data module extension assumed for this field	The current field entry must be an assigned data module extension.
Cannot delete circuit pack that is physically inserted	Remove the circuit pack from the carrier. Then, using the "change circuit-packs" command, delete the circuit pack from the carrier slot.
Cannot display tone-clock board TDM bus port	You cannot display the non-administrable TN768 Tone Clock. Use the "status" command if required.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Cannot display tone-clock board tone generator port	You cannot display the non-administrable TN768 Tone Clock. Use the "status" command if required.
Cannot enable Recurring Second Announcement without Announcement Extension	On the Hunt Group form—Complete the Second Announcement Extension and Second Announcement Delay fields as appropriate.
Cannot enable both ASAI Interface and CPN/BN features	The System supports the use of one of these features at a time but not both.
Cannot enable both CAS and IAS	On the Console Parameters form—The CAS field entry must be "none" if the Inter-PBX Attendant Services (IAS) (Branch) entry is "y." If the CAS field entry is "main" or "branch," the IAS (Branch) field entry must be "n."
Cannot go to same step	On the Call Vector form—Do not reference the current step number when using a "goto step" command.
Cannot go to same vector	On the call Vector form—Do not reference the current number when using a "goto vector" command.
Cannot go to undefined step	On the Call Vector form—Do not reference an unassigned step (that is, step that does not have an associated command) when using a "goto step" command.
Cannot have dial access for isdn-pri trunks with this service type	On the ISDN-PRI Trunk Group form—The Dial Acces field entry can only be "y" if the Service Type field entry is "access," "tandem," "tie," "dmi-mos," or blank.
Cannot have more than one audix application	Signal Group form—(Reserved for future use)
Cannot hop a link to itself	On the Hop Channel Assignment form—A link number can only be hopped to a different link number, (that is, A Link/Chan pair can only be hopped to a different Link/Chan pair.)
Cannot mix this FAC with longer dial code	The first digit and number of digits in the FAC must agree with the First Digit Table on the System's Dial plan form.
Cannot remove synchronization source	A DS1 circuit pack cannot be removed from a carrier slot that has been administered as a Primary or Secondary synchronization source on the Synchronization Plan form.
Cannot remove while port installed	You must remove all associated port assignments before the circuit pack can be removed.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Cannot remove/change - stations administered to alias set type	You cannot remove the station if the station type (for example, 7434D) is currently entered on the Enhanced Terminal Administration form and is associated with an Alias Set Type.
Cannot remove; ext assigned as trunk group incoming destination	On the Trunk Group form—Delete the extension from the Incoming Destination field if appropriate. Then remove the extension.
Cannot remove; ext assigned as trunk group night destination	On the Trunk Group form—Delete the extension from the Night Service and Night fields if appropriate. Then remove the extension.
Cannot remove; extension assigned on system parameters features form	Remove the extension from extension-type fields on the Feature-Related System Parameters form if appropriate. Then remove extension.
Cannot remove; extension assigned on system parameters hospitality form	Remove the extension from extension-type fields on the Hospitality-Related System Parameters form if appropriate, then remove extension.
Cannot remove; extension is part of an administered connection	Remove extension from the Administered Connection form if appropriate. Then remove the extension.
Cannot use same extension for PMS and printers	On the Hospitality-Related System Parameters form—The Extension of Property Management System (PMS) field entry must be different than the Extension of PMS Log Printer or Extension of Journal/Schedule Printer field entries.
Cannot use the predefine name	On the Network Facilities Access form—The Name field entry cannot be the same or a subset of another Service/Feature entry already defined on the form.
Centralized Attendant Service (CAS) Branch feature not assigned	The CAS (Main) feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Centralized Attendant Service (CAS) Main feature not assigned	The Centralized Attendant Service (Branch) feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Change not allowed; must remove and add	Station/Attendant Console form—A Data Module extension cannot be changed once it has been submitted. The data module must be removed and then added back with the correct extension.
Character invalid for this button type	On the Station/Attendant Console form—Enter appropriate data for the feature button type. Refer to the Voice Terminal—General coverage provided in Chapter 6 for feature button description and characteristics.
Check links assignment form! Must assign ISDN to this link	On the Processor Channel Assignments form—Review all ISDN assignments and note associated link numbers.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Circuit Pack previously assigned; please select another	All ports on the circuit pack have been assigned. Administer ports on another circuit pack of the same type or the same functionality.
Circuit pack can only be administered in slot labeled EXPNSN INTRFC	On the Circuit Pack Administration form—The TN570 or TN776 Expansion Interface circuit pack can only be administered in certain carrier slots. Refer to the Expansion Interface Carrier/Slot Assignments figure in Chapter 2 for carrier/slot information.
Circuit pack is wrong type	The port administered is not correct for the associated function. For example, when using an "add ds1" command, the Location field entry on the DS1 form must be a port that is associated with an administered DS1 circuit pack.
Circuit pack must be installed first	Either physically install the circuit pack in the appropriate carrier slot or administer the circuit pack on the Circuit Pack administration form.
Cleared alarm notification requires alarm origination	This is a Maintenance-Related System Parameters form error. Consult the Installation and Test manual (555-204-104) for additional information.
Code length invalid	Input appropriate code length. Press [HELP] for a listing of valid entries or an associated help message.
Code/Suffix does not match physically inserted circuit pack	On the circuit Pack Administration form—Ensure that the Code, Sfx, and Name field entries agree with the circuit packs installed in the associated carrier slots.
Combined # of Local & Remote TGS buttons on feature buttons exceeds maximum	On the Attendant Console form—The combined number of Local and Remote TGS buttons that are administered on Page 2 of the form must not exceed 12.
Communication type and port type inconsistent	On the Access Endpoints form—The Port field entry must be consistent with the Communication Type field entry. For example, if the Communication Type field entry is "56k-data" or "64k-data," the Port entry must be a DS1 circuit pack port.
Corresponding abbreviated dialing list not assigned	The Abbreviated Dialing List type entered (for example, personal, group, etc..) is not administered in the System.
Count cannot be blank, if 'Starting Extension' specified	On the command line, if you specify a starting extension, you must specify a count number.
Coverage and display modules cannot be specified on the same station	On the 7405D or 7434D Station form—Either the Display field entry can be "y" or the Coverage Module field entry can be "y," but not both.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Coverage point extension must be a station	Enter a coverage point extension number that is assigned to a station.
Current password must be specified	Enter the appropriate password. Contact the System Administrator for assistance.
D-Channel has to be on the 24th port	On the Signaling Group form—The port number associated with the Primary and Secondary D-Channel field entries must be "24."
DCS requires Uniform Dialing Plan to be activated	The UDP feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
DMI-BOS requires common-chan signaling	On the DS1 Circuit Pack form—If the DMI-BOS field entry is "y," the Signaling Mode field entry must be "common-chan."
DS-1/isdn circuit is required	On the ISDN-PRI Trunk Group form—The Port field entries must be DS1 circuit pack ports.
DS1 signaling mode must be common-chan	On the DS1 Circuit Pack form—For alternate voice and data applications, the Signaling Mode field must be "common-chan."
DS1 signaling mode must be robbed-bit	On the DS1 Circuit Pack form—For voice tie trunk applications, the Signaling Mode field must be "robbed-bit."
Data extension buttons not allowed on BRI set types	Because one button transfer to data is not allowed for BRI, data extension buttons are not allowed on BRI set types.
Data extension group member(s) must be removed first	Remove all associated Data Extension buttons from Station/Attendant Console forms before the Data Module can be removed or the Data Module's Type field can be changed.
Data Extension must be removed from hunt group(s) before removal.	Specific to data extensions. This error message is similar to the error message "Extension must be removed from hunt group(s) before removal."
Del cannot be greater than Called Len	On the ISDN-PRI form—The Del field entry (Page 2) cannot be greater than the associated Called Len field entry.
Del, insert, SID/ANI, or Night Serv field must be specified	On the ISDN-PRI Trunk Group form—If a Service/Feature is specified (Page 2) associated field (that is, Del, Insert, Per Call CPN/BN, or Night Serv) must be specified.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Destination digits dublicately assigned	(Reserved for future use)
Destination must begin with a valid FAC, TAC, or extension	On the Administered Connection form—The Destination field entry must begin with a valid FAC, Trunk Access Code (TAC), or extension number.
Dial code out of range	Enter a valid Abbreviated Dialing dial code. Press [HELP] for a list of valid entries or an associated help message.
Dial type invalid for length or first digit	On the Dial Plan form—The First Digit Table entry is incorrect. Consult the Dial Plan form coverage in Chapter 6 for a list of valid entries.
Dialed string not assigned to any list	On the Toll Analysis form—Assign at least one list to the Dialed Sting entry.
Digit Insertion and Deletion not allowed for auto/auto trunks	On the Trunk Group form—The Digit Treatment field must be blank for a Trunk Type field entry of "auto/auto."
Direction cannot be two-way for RLT trunk group	On the Release Link Trunk Group form—The Direction field entry cannot be "two-way."
Disable link for the primary D-Channel board first	On the Interface Links form—For the appropriate link number, set the Enable field to "n." Then remove or change the Signaling Group as required.
Disable link for the secondary D-Channel board first	On the Interface Links form—For the appropriate link number, set the Enable field to "n." Then remove or change the Signaling Group as required.
Disable the link for the previously used board first	On the Interface Links form—Disable the link (set Enable field to "n") associated with the previously used circuit pack. Then change the Signaling Group.
Disable the link for this board first	On the Interface Links form—Disable the link (set Enable field to "n") associated with this circuit pack. Then change the Signaling Group.
Disconnect time must be specified	Enter the appropriate time. Press [HELP] for a list of valid entries or an associated help message.
Display module and display cartridge cannot be specified on same station	On the 7406D Station form—Enter "y" in either the Display field or the Display Cartridge field, but not both.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Distributed Communication Service (DCS) feature not assigned	The DCS feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Duplicate Alpha-name; please press HELP key	On the Alphanumeric Dialing Table form—Each Alpha name field must have a unique entry.
Duplicate IXC access numbers are not allowed	Enter a unique Inter-Exchange Carrier Code (IXC) access code, the current entry is already assigned.
Duplicate MACHINE ID for same application not allowed	On the Processor Channel Assignments form—The Machine-ID field entry cannot be entered more than once for the same Application field entry.
Duplicate Service/Feature name is not allowed	On the ISDN-PRI Trunk Group form—Duplicate Service/Feature field entries (Page 2) are not allowed.
Duplicate TAC	On the Loudspeaker Paging Access form—The TAC field entry must be unique for each TAC field entry on the form.
Duplicate abbreviated dialing list entry	Each Abbreviated Dialing list reference must be unique.
Duplicate board	On the Modem Pool Group form—Each Circuit Pack Location field entry for an integrated modem pool group must be unique.
Duplicate board destination not allowed	On the Processor Interface Data Module form(s)—The Physical Channel field entry must be unique (that is, used only once) for all Processor Interface Data Module assignments.
Duplicate button	On the Station form—Enter a unique button type. The current attempted entry is already assigned this station.
Duplicate destination digits not allowed	Enter a unique destination number. Press [HELP] for a list of valid entries or an associated help message.
Duplicate entries on the screen	On the AAR/ARS Analysis and Toll Analysis forms—Each Dialed String and associated Min/Max field entry must be unique.
Duplicate entry is not allowed	Enter a unique value or assignment. The current attempted entry already exists. Press [HELP] for a list of valid entries or an associated help message.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Duplicate ext length and ext code	On the CPN Prefix Table form—Each pair of Ext Len and Ext Code field entries must be unique.
Duplicate extension	Enter a unique extension number. The current attempted entry is already assigned.
Duplicate facility type and facility coding are not allowed	On the Network Facilities form—Duplicate Facility Type and Coding field entries are not allowed. Make each Facility Type and associated Coding field entry unique.
Duplicate link for ISDN is not allowed	On the Processor Channel Assignment form—The Application field entry of "isdn" can only be associated with one link number.
Duplicate link/channel pair not allowed	On the Processor Channel Assignment form—The Interface Link/Chan pair entries cannot be duplicated. Each Link/Chan pair entry must be unique.
Duplicate members	Enter a non-assigned member. The current attempted entry is already assigned.
Duplicate of this application type not allowed	On the Processor Channel Assignments form—Certain applications (for example, "AUDIX") can only be entered once in the Appl. fields on the form.
Duplicate port	On the Modem Pool Group form—The Circuit Pack Location field entry must not be duplicated in the associated fields on the form.
EIA port previously assigned	On the Feature-Related System Parameters form—The Electronic Industries Association (EIA) port has already been assigned to another function. Enter a module extension instead. (Note that the data module must first be administered in the System before assigning its extension number.)
Emergency Access to the Attendant feature not assigned	The Emergency Access to Attendant feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
End time must be later than start time	Reenter an End Time that is later in time than the Start Time.
Entries for same first digit cannot follow a TAC or AAR/ARS FAC	On the Dial Plan form—A TAC is assigned the same first digit as the dial type you have just entered. The dial type can have the same first digit as the TAC as long as its length is not greater the the TAC's length.
Entry already exists in the table	Duplicate entries are not allowed. The current attempted entry already exists in the table (not displayed on the current screen).

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Entry contains an Alpha-name argument that is too long	On the Alphanumeric Dialing Table—A Mapped String field entry contains an Alpha name like string that is greater than eight characters. Reduce the string to eight or less character.
Entry contains an Alpha-name that is not administered	On the Alphanumeric Dialing Table form—An Alpha name has been specified in a Mapped String, and the Alpha name has not been entered on the form. Remove name or add Alpha name to the table.
Entry creates a cycle	On the Call Coverage Path form—The Next Path Number field entry cannot refer to another coverage path already in the coverage path string (that is, Coverage Path 1 with Next Path Number of "2," then Coverage Path 2 with Next Path Number of "1." This creates a loop.)
Entry exceeds the limit of 4 linked paths	On the Call Coverage Path forms—You cannot have more than four coverage paths associated with a call.
Entry exists in another partition with different call type	On the AAR/ARS Analysis form—The entry must not be assigned on another AAR/ARS Analysis form associated with a different PGN.
Entry must be all digits	Reenter the data as all digits in the range 0 through 9.
Entry must be all digits or "all"	Reenter the data as all digits in the range 0 through 9 or enter "all."
Entry must be all digits, "user," or "none"	Reenter the data as all digits in the range 0 through 9 or enter "user" or "none."
Entry must be all digits, *, #, ~p(pause), ~w(wait), or ~m(mark)	On the Administered Connection form—The Destination field entry must be all digits and can include the "*", "#," "~p," "~w," or "~m" characters. No other entries are allowed.
Entry must be an even number	Reenter the data as an even number.
Entry must be blank for gateway application	(Reserved for future use)
Entry must be blank if application is not DCS or AUDIX.	On the Process Channel Assignments form—The field must be blank for APLT field entries of other than "dcs," or "AUDIX."
Entry must be digits, #, or blank	Reenter the data as either all digits, "#," or leave blank.
Entry must be in range 1 through 8 if application is AUDIX	Reenter the data in the range 1 through 8 for AUDIX applications.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Entry must be multiple of 5	Reenter the data as a multiple of five (for example, 5, 10, 15, etc.).
Entry must contain only alphanumeric characters	Reenter the data as alphanumeric characters only (for example, space character not allowed).
Entry must start with an alphabetic character	Reenter the data with the first character an alpha character in the range A through Z.
Entry too long	Reenter the data. Press [HELP] for a listing of valid field entries or an associated help message.
Event Notification Group feature not assigned	The Event Notification Group option must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Exceeds level of Alpha-name referencing	On the Alphanumeric Dialing Table form—An Alpha name is specified in a Mapped string, and the specified Alpha name's Mapped string contains a reference to the Alpha name. Delete one of the Alpha name references.
Expected number of digits must be greater than number of digits absorbed	On a DID Trunk Group form—With a Digit Treatment field entry of "absorption," the Expected Digits field entry must be greater than the number of digits absorbed.
Ext code inconsistent with First Digit table	On the CPN Prefix Table form—The Ext Code field entry must be in agreement with the System's Dial Plan form. Enter an Ext Code that agrees with the Dial Plan.
Ext length inconsistent with First Digit table	On the CPN Prefix Table form—The Ext Len field entry must agree with the length of extension numbers assigned on the System's Dial Plan form.
Ext length must be '1' for the attendant extension	On the CPN Prefix Table form—The Ext Len field entry must be "1" when the associated Ext Code field entry is "0."
Ext length plus number of CPN Prefix digits must be 10 or greater	On the CPN Prefix Table form—The Ext Len field entry plus the number of digits entered in the associated CPN Prefix field must be 10 or greater.
Extension assigned but wrong type for the group	Enter the appropriate extension number that is associated with the group or field (for example, announcement extension, night service extension, hunt group extension, etc.). Prefixed extensions are not allowed.
Extension assigned to an object other than a station	Enter valid station extension number.

TABLE 3-B (continued)
System Error Messages

Error Message	Description
Extension assigned to invalid data module type	On the Administered Connection form—The Originator and Destination fields cannot be assigned an extension number that is assigned a Net-con, Processor Interface, or Recorded Announcement Data Module.
Extension assigned to object other than access endpoint or data module	On the Administered Connection form—The Originator and Destination field entries must be extension numbers assigned to access endpoints or MPTM/MTDM data modules only.
Extension does not have personal list assigned	An Abbreviated Dialing Personal List cannot be referenced in an Abbreviated Dialing List 1, 2, or 3 field if the Personal List is not assigned in the System. Administer the Personal List first, then enter the reference.
Extension must be an off switch (UDP) extension	On the Hunt Group form—If the Message Center field entry is "rem-audix," the AUDIX Extension field entry must be a Uniform Dial Plan (UDP) extension number.
Extension must be different from this station extension	Reenter the extension number. Do not use the number assigned this to station.
Extension must be removed from hunt group(s) before removal	On an associated Hunt Group form(s)—Remove the extension from all hunt groups where it is assigned as a group member. Then remove the extension.
Extension must be removed from vector(s) before removal	On an associated Call Vector form(s)—Remove all references to the extension from all call vector commands. Then remove the extension.
Extension not assigned	Enter an extension number that agrees with the System's Dial Plan form.
Extension not assigned for intercom dial code	Enter an extension number assigned the appropriate Intercom Group. Assigned extensions can be displayed using the command "display intercom-group (1 through 32)."
Extension previously assigned; please select another	Enter a valid extension that agrees with the System's Dial Plan form and that is not already assigned an object.
Extensions defined only as "pextension" in dialplan cannot be specified	On the CPN Prefix Table form—The CPN Prefix field entry cannot an extension defined only as a "extension" (prefixed extension) on the System's Dial Plan form.
FAC invalid please check dialplan	Enter a FAC that agrees with the System's Dial Plan form. The FAC's first digit and length must agree with the Dial Plan's First Digit Table assignments for FACs.
FRL invalid	Enter a FRL number in the range of 0 through 7.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
FRL must not be blank	Enter an appropriate Facility Restriction Lead (FRL) number in the range of 1 through 7.
FRLs must not decrease going down the list	Enter an appropriate FRL number that is larger numerically than the previous entry.
Fas D-channel may not be on an nfas signaled board	On the signaling Group form—Reassign the Primary D-Channel port assignment to the same DS1 circuit pack associated with the B-channels (data channels).
Fas signaled board may not be in nfas signaling group	On the Signaling Group form—Reassign the Primary D-Channel port assignment to a DS1 circuit pack not already assigned to a Non-Facility Associated Signaling Group (that is, Associated Signaling field entry= "n").
Feature and Data modules cannot be specified on the same station	On the 7405D Station form—The Data Module field entry and the Feature Module field entry cannot both be "y." If "y" is entered in one of the fields, then "n" must be entered in the other.
Feature not activated in the system	The associated feature must be enabled on the System Parameters Customer Options from before associated forms and fields on forms can be administered.
Field cannot be blank	Enter appropriate data in the field. Press [HELP] for a list of valid entries or an associated help message.
Field must be blank for normal PMS Protocol Mode	The associated field entry must be blank when the PMS Protocol Mode field entry on the Hospitality-Related System Parameters form is "normal."
Field must be blank for BX25 application	The associated field entry must be blank for BX.25 applications (CPN/BN applications for example).
Field must be blank for ISDN application	On the Processor Channel Assignments form—The Remote Proc Chan field entry must be blank when the associated Appl. field entry is "isdn."
Field must be blank on systems with this control carrier type	Remove all data from the associated field.
Field must be enabled since port type is DS1	Enter "y" in the associated field for DS1 circuit pack applications.
Field must be set to yes for ISDN protocol	Enter "y" in the associated field for ISDN applications.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Fifteen Digit Account Codes not assigned	On the Feature-Related System Parameters form—Complete the SMDR Account Code Length field entry to define the length of all account codes.
First Digit Table is inconsistent with the Plan Length	On the Dial Plan form—The length of the extension assigned in the First Digit Table for the first digit of any PBX code in the Uniform Dial Plan (Pages 2 through 6) or the length of any "extension" does not match the Plan Length field entry.
First digit has assignment remove objects with this first digit	On the Dial Plan form—The first digit field cannot be changed until all references to this digit have been removed. For example, if digit 7 is assigned to a TAC and you want to change the digit assignment to something else, all items using a TAC of 7 must be removed before the digit assignment can be changed.
For call type 'ars', 'haar', or 'hatd', routing pattern should be blank	On the AAR Analysis form—The Route Pat field entry must be blank for associated Call Type field entries of "ars," "haar," or "hatd."
Forced Entry of Account Codes not assigned	The Forced Entry of Account Codes feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Format invalid	On the Intercom Group form—The Direct Current (DC) field entry cannot be a "0" or begin with a "0." The entry must be all digits in the range 1 through 9.
	On the Station form—When assigning an "auto-icom" (Automatic Intercom) feature button, the DC (dial code) entry must be in agreement with the dial codes assigned to the associated Intercom Group.
Group COR must be specified	Enter an appropriate COR in the range of 0 through 63.
Group direction invalid	On a Release Link Trunk Group form—The Direction field entry must be either "outgoing" for a CAS branch location or "incoming" for a CAS main location.
	On a WATS Trunk Group form—The Direction field entry must be either "incoming" or "outgoing."
Group extension must be specified	Enter an extension number associated with the group.
Group full; cannot add new members	Either remove members from the group before adding new members or create a new group.
Group members must be deleted before removing group	Remove all members from the group, then remove the group.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Group members must be removed before changing to adjunct controlled	Assign hunt group members to the Adjunct Controlled Agent Table if appropriate and/or remove members from the hunt group, then change the ACD field to "y" (if not already "y") and set the Controlling Adjunct field to "bx.25" or "asai" as required.
Group not assigned	Enter an appropriate assigned group number or assign a new group and then reference the new group number.
Group number for this button invalid	Enter an appropriate group number. If required, use the "list" or "display" command to display group assignments.
Group number invalid	Enter an appropriate group number. If required, use the "list" or "display" command to display group assignments.
Group number must be all digits	Reenter the group number (must be within the range of valid group numbers for the group type).
Group number out of range	Reenter the group number (must be within the range of valid group numbers for the group type).
Group type for this button invalid	On the Station form—For a Uniform Call Distribution (UCD) Direct Distance Dialed (DDD) "in-call-id" (Incoming Call ID) feature button, the Type field entry must be "c" for coverage or "h" for a UCD/DDC group.
Group type invalid	Reenter the appropriate Group Type data. Press [HELP] for a list of valid entries or an associated help message.
Hold button required	On the Attendant Console form—A Hold button is required. The form cannot be submitted unless a Hold button is assigned on the form.
Hospitality Parameter Reduction requires Hospitality to be activated	The Hospitality feature must be enabled on the System Parameters Customer Options form before the Hospitality Parameter Reduction and associated forms and fields on forms can be administered.
Hospitality feature not assigned	The Hospitality feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
Hot line feature requires KYBD dialing capability	The Data Hot Line feature requires the user to press [BREAK] . This requires a data terminal and associated keyboard.
Hunt group cannot be an ACD split if message center is Remote AUDIX	On the Hunt Group form—Enter "msa" or "AUDIX" in the Message Center field.
Hunt group cannot have a Queue if message center is Remote AUDIX	On the Hunt Group form—Enter "n" in the Queue field when the Message Center field entry is "rem-audix."

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Hunt group or split not administered	Reenter the hunt group number. Do not enter a hunt group or split number that is not administered.
Hunt group or split not designated for messaging	On the Call Vector form—When using a Messaging command to designate a hunt group or split for leaving messages, the Message Center field on the Hunt Group form must be administered as "msa," "rem-audix," or "audix."
Hunt group or split not vector controlled	On the Call Vector form—When a Check or Queue command is used, enter a hunt group or split number whose Vector field is set to "y."
Hunt night service buttons must be removed before removal	All "hunt-ns" feature buttons assigned to stations and attendant consoles must be removed from the station and attendant console forms before the associated hunt group can be removed.
ID and Local PBX ID must match	On the Dial Plan form—When the LCL field entry (Page 2 through 6) is "y," the associated ID and the Local PBX ID (Page 1) entries must be the same.
ISDN-PRI and Vectoring (Basic) must be assigned	The ISDN-PRI and Vectoring (Basic) features must be enabled on the System Parameter Customer Options form before associated forms and fields on forms can be administered.
ISDN-PRI feature not assigned	The ISDN-PRI feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
IXC for non-ISDN trunk groups should be entered in Inserted Digits field	On the Routing Pattern form—The IXC value for non-ISDN-PRI trunk groups must be entered in the Inserted Digits field.
IXC number must be three digits	On the Routing Pattern form—The IXC field entry must be the last three digits of a 5-digit IXC (10XXX).
Identifier invalid	Reenter the data. Press [HELP] for a list of valid entries or an associated help message.
Identifier not assigned	Reenter an assigned number. The extension, hunt group, PCOL Group, trunk group, etc, number does not exist.
Identifier previously assigned; please select another	Enter an unassigned number. The number just entered is already assigned an object.
Idle Appearance Preference must be n(o) for 7401D	On the 7410D Station form—The Idle Appearance Preference field entry must be "n."
If 'active' is yes, 'busy' must be yes	Enter "y" in the associated busy field when the active field entry is "y."

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Intercom dial code not assigned for extension	On the Station form—The dial code entered for an "auto-icom" feature button is not assigned on the associated Intercom Group form.
Interface IDs are dublicately assigned	On the Signaling Group form—An Interface ID field entry cannot be entered in another Interface ID field
Invalid Authorization Code	On the Authorization Codes form—The AC field entry must be a 4- to 7-digit code and agree with the Authorization Code Length field entry on the Feature-Related System Parameters form.
Invalid Group	Reenter the group number. Press [HELP] for a list of valid entries or an associated help message.
Invalid IXC access number - must be 10XXX, 9501XXX or NXXXXXX	On the IXC form—The IXC Access Number field entry must be in the form 10XXX, 9501XXX, or NXXXXXX.
Invalid area code	Enter a valid area code in the form Public Network Office Code (NXX) where N is any digit two through nine and X is any digit 0 through 9.
254 Invalid class of restriction	Enter the appropriate COR in the range of 0 through 63.
Invalid count	The count number entered on the command line is incorrect, reenter the command. Refer to the administration commands coverage in Chapter 3 for additional information.
Invalid destination	Reenter the data. Consult the appropriate form instructions in Chapter 5 or Chapter 6 for additional information.
Invalid digit insertion string	On the Routing Pattern form—In the Inserted Digits field, enter up to 36 digits. Press [HELP] for an associated help message.
Invalid Entry	Reenter the data. Press [HELP] for an associated help message.
Invalid Entry -- please press the HELP key	Reenter the data. Press [HELP] for a list of valid entries or an associated help message.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Invalid facility restriction level	Enter a valid FRL in the range 0 through 7.
Invalid number of digits deleted	On the Routing Pattern form—The No. Del Digits field entry can be from 0 through 18 or blank
Invalid partitioned group number	The Partitioned Group Number (PGN) must be in the range one through eight. Each PGN is defined using appropriate COR forms.
Invalid: please check the Dial Plan	Reenter the number. Ensure that your entry is in agreement with the System's Dial Plan.
Invalid prefix mark	On the Routing Pattern form—The Prefix Mark field entry must be in the range 0 through 3.
Invalid routing pattern	Enter a valid routing pattern number in the range 1 through 254.
Invalid toll list reference number	Enter a valid toll list number in the range 1 through 32.
Invalid trunk group number	Enter a valid trunk group number in the range 1 through 99.
Is not an isdn-pri trunk group; please select another	On the signaling Group form—(Reserved for future use)
Length of dialed string cannot exceed total minimum	The length of the Dialed String entry must be less than or equal to the associated Min field entry.
Length of ext code greater than ext length	On the CPN Prefix Table form—The Ext Code field entry cannot be greater than the associated Ext Len field entry.
Link must be assigned to a processor or hop channel first	Assign the interface link on the Processor Channel Assignments or Hop Channel Assignments form before completing current entry.
Link/channel pair assigned to hop-channel	Enter an appropriate link/channel pair not currently assigned to a hop channel.
Link/channel pair assigned to processor channel	On the Hop Channel Assignments form—Do not assign Link/Channel pairs if already assigned on the Processor Channel Assignments form.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
List number out of range	On the Station/Attendant Console form—When administering an Abbreviated Dialing feature button, the associated list number entry must be in the range of 1 through 3.
Local PBX ID not specified; please check dialplan	On the Administered Connection form—The Auto Restoration field entry cannot be "y" unless the Local PBX ID field entry on the System's Dial Plan form has an entry in the range of 1 through 63.
Local PBX Id Multiply Assigned	On the Dial Plan form—Two identical PBX IDs (Pages 2 through 6) are entered and associated entries in the Local (LCL) fields are different.
	On the Dial Plan form—Entry in two LCL fields (Pages 2 through 6) is "y" and the associated PBX IDs field entries are different.
Local extension dublicately assigned; please select another	Reenter an unassigned extension number.
Long Holding Time must be 0 for SDDN service type	On the ISDN-PRI Trunk Group form—If the Service Type field entry is "sddn," then the Long Holding Time field entry must be "0."
Lookahead Interflow feature not assigned	The Lookahead Interflow feature must be enabled on the System Parameters Customer Options form before associated forms and fields on forms can be administered.
MIM support must be set to 'n' for ASAI stations	On the ASAI Interface form (station form with Type field = "asai")—The MIN Support field entry must be "n."
Maintenance extension must be administered from active netcon/procr-intf form	The Maintenance Extension field must be administered on the appropriate Processor Interface or Netcon Data Module form.
Max# Chan cannot exceed total number of trunk members	On the ISDN-PRI Trunk Group form—The Max# Chan field entry (Page 3) cannot be gneater than the total number of trunk members (Pages 5 through 11).
Max# Chan minus Min# Chan exceeds total members minus sum of Min# Chan	On the ISDN-PRI Trunk Group form—The Max# Chan field entry (Page 3) minus the associated Min# Chan field entry must not exceed the total number of trunk members minus the sum of the Min# Chan entries.
Maximum number of attendants with this type has already been assigned	On the Attendant Console forms—Only one form can have a Console Type field entry of "principal." Also, only one as "night-only" or "day/night."
Maximum number of bridged appearances for principal already assigned	On the Station/Attendant Console form—The bridged appearance feature button cannot be assigned the extension number just entered. The extension is currently assigned the maximum number of bridged appearance.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Maximum number of groups previously entered; cannot add new groups	The maximum number of this type of group have already been assigned. You cannot enter a group of the same type unless you remove a current group.
Maximum number of reports scheduled cannot schedule new report	When using the reoport scheduler command, the maximum number of reports to be scheduled cannot exceed 50.
Message waiting button can only be last button	When administering a 7302H station, the Message waiting lamp must be administered to Button Assignments button number five.
Message(s) waiting; please delete message(s) first	A LWC Message Waiting feature button or associated station cannot be removed if the station has a message waiting. Delete all messages that are waiting, then remove the button and/or station.
Min# Chan cannot be greater than Max# Chan	On the ISDN-PRI Trunk Group form—The Min# Chan field entry cannot be greater than its associated Max # Chan field entry.
Min/Max ranges overlap - Duplicate entries on the screen	Two Dialed String field entries are the same but their associated Min/Max field entries overlap other entries on the current display screen.
Min/Max ranges overlap - Entry already exists in the table	Two Dialed String field entries are the same but their associated Min/Max field entries overlap other entries in the table (not on the current display screen).
Minimum value exceeds maximum value	The Min field entry must be equal to or less than its associated Max field entry.
Missing port pair member	On the Modem Pool Group form—For each combined modem pool group to be assigned, enter one analog port assignment in an Analog field and one digital port assignment in the associated Digital field.
Modem-pool option(s) must be specified	On the Modem Pool Group form—Complete all appropriate fields for the type of modem pool being administered. Refer to the Modem Pool Group form instructions in Chapter 6 for additional information.
Modules must be removed before station type can be changed	On the Station form—Remove all modules and associated administration data from the station, then change the Type field entry.
Must add this trunk board to a Sig Grp before assigning this ISDN-PRI port	On the ISDN-PRI Trunk Group form—A DS1 trunk port cannot be assigned if the DS1 is associated with a Non-Facility Associated Signaling Group but not yet administered in a Trunk Brd field on the form. Enter the DS1 port assignment on the Signaling Group Trunk Brd field first then enter port assignments on the trunk group.
Must administer CAS Branch on console-parameters form	On the Release Link Trunk Group form—The Direction field entry can only be "outgoing" if the CAS field entry on the Console Parameters form in "branch."

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Must administer CAS Main on console-parameters form	On the Release Link Trunk Group form—The Direction field entry can only be "incoming" if the CAS field entry on the Console Parameters form is "main."
Must administer DS-1 circuit pack first	A DS1 port cannot be assigned until the DS1 circuit pack is physically installed or administered using the Circuit Pack Administration form.
Must administer a station DM through its related station	A Data Module to be associated with a station must be administered on a page provided with the station form.
Must administer an adjunct controlled split before accessing agents	After an Adjunct Controlled Agent Table has been administered in the System, at least one Hunt Group form must have its Controlling Adjunct field entry set to "bx.25."
Must assign interface ID for each trunk board	On the Signaling Group form—When the Associated Signaling field entry is "n" (Non-Facility Associated Signaling), an Interface ID field entry is required with each completed Trunk Brd field entry on the form.
Must assign queue (at least 1) for RLT trunk group	On the Release Link Trunk Group form—The Queue Length field entry must be at least "1" or greater.
Must assign signaling group number for this port since no default value found	On the ISDN-PRI Trunk Group form—the Sig Group field entry (Pages 5 through 11) for each port assigned must contain an entry. If a DS1 interface appears in one and only one Signaling Group, then the signaling group number will appear as a default in the Sig Group field for any trunk port on that interface. This value cannot be changed until another DS1 circuit pack is added for another Signaling Group. If a DS1 circuit pack is assigned to more than one Signaling Group, then no defaults will appear in the Sig Group field.
Must bridge onto an analog station	On a Station/Attendant Console form—When administering an "abrdg-app" feature button, the associated Ext field entry must be the extension number assigned the analog station to be bridged.
Must busyout PMS before changing or removing extension	The PMS must not be active when changing or removing the extension. Busy out PMS first, then change or remove the extension.
Must disable administered NCA-TSC before changing parameters	On the signaling group forms, set the enable field for NCA-TSCs to "n" before changing NCA-TSC parameters.
Must disable administered NCA-TSC before removing	On the signaling group forms, set the enable field for NCA-TSCs to "n" before removing NCA-TSC.
Must disable all administered NCA-TSCs before changing Service/Feature	On the signaling group forms, set the enable field for NCA-TSCs to "n" before changing Service/Feature.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Must disable associated communication link before change/removal	The Interface Link must be busied out before a "change communications-interface link" command can be issued. On the Interface Links form, set the appropriate Enable field entry to "n" to busy out the link.
Must disable communication link associated with this DS1 board first	The Interface Link must be busied out before the associated objector DS1 port can be changed or removed. On the Interface Links form, set the appropriate Enable field entry to "n" to busy out the link.
Must have at least one entry for each day	On the Time of Day Routing form—There must be at least one Act Time and associated PGN field entry for each day on the form. The System defaults are "00:00" and "1," respectively, for each day.
Must have normal button for display module	On the Station form—A "normal" display-type feature button must be assigned if the station is administered with a display module.
Must install TN780 circuit pack for stratum 3 synchronization	On the Synchronization Plan form—If the Statum field entry is "3," a TN780 Tone/Clock circuit must be installed in the System.
Must install circuit pack before installing equipment	The associated circuit pack must be physically installed and/or administered using the Circuit Pack administration form.
Must not reference its own Alpha-name	On the Alphanumeric Dialing Table—A Mapped String field entry contains a reference to its associated Alpha-name field entry. Change the Alpha-name reference in the Mapped String.
Must remove 7103A abbreviated dialing list before changing the set type	On the 7103A Station form—Remove "7103A" from the Abbreviated Dialing List 1, 2, or 3 fields before changing the Type field entry.
Must remove DS1 parameters	On the DS1 Circuit Pack form—Remove appropriate entries from associated fields on the form before removing the circuit pack.
Must remove Secondary D-Channel field before changing fas-nfas type	On the Signaling Group form—If the Associated Signaling field entry is to be changed from "n" (NFAS) to "y" (FAS), the secondary D-Channel field entry must be deleted first.
Must remove administered NCA-TSCs before removing signaling group	Remove any administered NCA-TSCs from the signaling group before removing the signaling group.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Must remove all members before changing trunk group type to/from ISDN-PRI	On the Trunk Group form—Remove all trunk port assignments before changing the Group Type field entry on Page 1 of the form.
Must remove associated Sig Grp entry on Trunk Group form first	On the ISDN-PRI Trunk Group form—The Signaling Group number (one through eight) must be removed from the Sig Grp fields on Pages 5 through 11 of the form before the Signaling Group can be removed.
Must remove associated ports from trunk group first	On the Trunk Group form—Before a Signaling Group can be removed, all DS1 port assignments associated with the Signaling Group's Primary and Secondary D-Channel must first be removed from the trunk group.
Must remove button 31 or set data module to "n."	Similar to the above error message except that it refers to button 31 of the 7507D set Applies to BRI 7507D set when attempting to change to this set type from other sets when button 31 is assigned and data module is optioned "y." Button 31 on 7507D set is reserved as a fixed data button if data module is optioned as "y." Button 31 of the 7507D set normally appears as feature button "21:" of 7405D set. However on 7407D set it appears as button "31."
Must remove button 7 or set data module to "n."	Applies to BRI 7505D and 7506D sets when attempting to change to these sets from other sets when button seven is assigned and data module is optioned "y." Button 7 on 7505D and 7506D sets is reserved as a fixed data button if data module is optioned as "y."
Must remove entry from ISDN TSC Gateway form first	Before removing a gateway entry from processor channel form, remove associated entry from ISDN TSC gateway form first. Also, before removing NCS-TSC entry with application "gateway" from the signaling group form, remove associated entry from ISDN TSC gateway form first.
Must remove entry from Signaling Group form first	A DS1 circuit pack cannot be removed if the 24th channel is administered as a D-Channel on a Signaling Group form.
	A DS1 circuit pack cannot be removed if an associated port is administered in a Trunk Brd field on an NFAS Signaling Group form.
Must remove extensions dependent on this "extension" first	On the Dial Plan form—The extensions assigned as "extensions" must be removed from all objects (for example, stations, hunt groups, etc.) before the associated entry on the First Digit Table can be changed.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Must remove installed equipment before changing circuit pack type	Remove circuit pack and associated interface hardware and wiring from the associated port slot before changing the circuit pack type for that slot.
Must remove the 24th port from trunk group first	On the Signaling Group form—If a DS1 circuit pack is to be assigned a D-Channel and the 24th port is currently assigned on a trunk group form, the port must be removed from the trunk group or another DS1 must be assigned as the D-Channel.
Must remove this DS1 board from communication links form first	On the Interface Links form—Remove the DS1 from the appropriate Destination Brd field before the circuit pack can be removed.
Must remove trunk boards before moving signaling group	On the Signaling Group form—The Trunk Brd and associated Interface ID field entries must be removed before removing the Signaling Group.
Must select an ISDN-PRI trunk group to establish TSC	When allowing TSCs on the Routing Pattern form for a preference, the specified trunk group must be of the ISDN-PRI trunk type.
Must set IXC to blank on Routing Pattern form first	On the Routing Pattern form—The IXC field entries must be blank before the Grp. No. field can be changed to a non-ISDN trunk group number.
Must set TSC request to none on Routing Pattern form first	When removing an ISDN trunk group or changing from ISDN trunk group type to non-ISDN type, set TSC request to "none" on associated routing pattern preference.
Must set to high for ISDN application	On the Processor Channel Assignments form—An Appl. field entry of "isdn" requires that the associated Priority field entry be "h."
Must specify at least one speed between LOW and 19200	On the Modem Pool Group form—When the Group Type field entry is "combined," the Speed field must have one speed specified.
Must use administered DS1 circuit pack	A DS1 port cannot be assigned until the DS1 circuit pack is physically installed and/or administered using the Circuit Pack Administration form.
Name format must be: [Last, First M] or [First M Last]*	On the Station form—The Name field entry must be in the format indicated. This format is required for use by the Integrated Directory feature.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Neither Service Observing nor ACD features assigned	The Service Observing and ACD features must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
New and reentered passwords do not match	The changed password has been entered incorrectly. Reenter the new password.
New password must be specified	A new password is required when changing passwords. Enter your new password. For additional assistance, contact your System Administrator.
Night Service must be blank for SDDN service type	On the ISDN-PRI Trunk Group form—The Night Service field entry must be blank when the associated Service/Feature field entry is "sddn."
Night-serv button required	On the Attendant Console form—At least one Night Service feature button must be administered.
No TSC assigned	A TSC index that was not administered has been specified in a maintenance command.
No Night Destination has been administered for this hunt group	On the Station form—A "hunt-ns" (Night Service) feature button has been assigned a hunt group that does not have its respective Night Service Destination field completed.
No adjunct controlled split similarly measured to move members to	On the Hunt Group form—You cannot remove the last Adjunct Controlled split if there are entries on the Adjunct Controlled Agents Table form.
No available extensions in the system	All available extension numbers have been assigned. The System maximum is 3500 of which 1600 can be phantom extensions. Also check the System Dial Plan form for complete assignment of all possible extension numbers.
No call appearance buttons have been assigned	On the Station form—Assign at least two call appearance feature buttons to multi-appearance voice terminals.
No data in the system to list	Indicates that the object in a list command (for example, hunt group, coverage group, etc.) is not assigned in the System.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
No space available to add data	The entry has exceeded System limitations for the associated object. Either enter new data or condense or remove current data to make room for the addition.
Number of BCMS measured agents exceeds maximum	The number of measured agents entered exceeds the System maximum of 200.
Number of BCMS measured agents per split exceeds maximum	The number of measured agents entered in a split exceeds the maximum of 30.
Number of BCMS measured hunt groups exceeds maximum	The number of measured hunt groups entered exceed the maximum of 99.
Number of BCMS measured trunk groups exceeds maximum	The number of measured trunk groups entered exceed the maximum of 32.
Number of local-tgs buttons on feature buttons exceeds maximum	On the Attendant Console form—The maximum number of "local-tgs" buttons that can be assigned on Page 2 of the form is 12. The combination of "local-tgs" and "remote-tgs" buttons assigned on Page 2 cannot exceed 12.
Number of playing cycles must be Specified	On the Loudspeaker Paging Access form—The Code Calling Playing Cycles field (Page 1) must be completed if the associated Code Calling fields on the form have been completed.
Number of remote-tgs buttons on feature buttons exceeds maximum	On the Attendant Console form—The maximum number of "remote-tgs" buttons that can be assigned on Page 2 of the form is 12. The combination of "local-tgs" and "remote-tgs" buttons assigned on Page 2 cannot exceed 12.
Number string may not run into an Alpha-name string	On the Alphanumeric Dialing Table form—A Mapped String field entry contains a Number String that includes an Alpha-name type string. Remove the Alpha-name type string.
OCM-SID/ANI feature not assigned	The Outbound Call Management (OCM) CPN/BN feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Object in use; please try later	The associated object must be busied-out or be idle before it can be changed or removed.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Object type and port type inconsistent	Administer the appropriate circuit pack type and port for the object being interfaced. For example, do not administer an Analog circuit pack port where a DS1 Circuit pack is required. Or, do not administer port number 12 if the associated circuit pack has just eight ports.
One or more ports already assigned; please select another board	Administer another unused circuit pack of the same type or functionality.
Only one 'audix' or 'rem-audix' message center allowed in system	On the Hunt Group form—Administer the appropriate entry in the Message Center field.
Only one abbreviated dialing list entry may be 7103A	On the Station form—Only one Abbreviated Dialing List (1, 2, or 3) can have an entry of "7103A."
Only one day may be specified for deferred reports	When using a schedule qualifier on a command line, the deferred print interval may only be printed once at some later time.
Only one personal list may be specified	Only one Abbreviated Dial List (1, 2, 3) on the form being administered can have an entry of "p."
Originator and destination cannot be the same	On the Administered Connection form—The Originator and Destination field entries cannot both be the same.
PBX Code Multiply Assigned	On the Dial Plan form—On Pages 2 through 6 of the form UDP, the Code field entry and associated RNX field entry must be different than any other Code/RNX entry on the form. Do not assign two or more RNXs to the same Code field entry.
PBX Code inconsistent with First Digit Table	On the Dial Plan form—An extension must be assigned on the First Digit Table for the first digit of all PBX Codes entered on the UDP (Pages 2 through 6).
PBX ID defined as local on dialplan form	On the Feature-Related System Parameters form—If the ACA Enabled field is "y" and the ACA Referral calls field is set to "remote," the ACA Remote PBX Identification field must not contain the local PBX ID (defined on the System's Dial Plan form).

TABLE 3-B (continued).
System Error Messages

Error Message	Description
PBX ID dublicately assigned please select another	On the Signaling Group form—The Interface ID field entry must not be entered more than once on the form.
PBX ID must be blank if service type is not access, dmi-mos, tandem, or tie	On the ISDN-PRI Trunk Group form—The PBX ID field entry (Page 2) must be blank if the Service Type field entry (Page 1) is not "access," "dmi-mos," "tandem," or "tie."
PBX ID must be unique for DCS across Dial Plan, Sig Grp, and Proc Chan forms	The far-end PBX-ID entered on the UDP (Dial Plan ID field on Pages 2 through 6) must be used on associated Processor Channel Assignment forms (Machine ID field) and NFAS Signaling Group forms (Interface ID field) when in a DCS configuration and referring to the same far-end PBX.
Packet bus is not activated, check system-parameters maintenance form	The Packet Bus option must be enabled on the Maintenance-Related System Parameters form before associated forms and fields on forms can be administered. Information concerning this form is provided in the <i>DEFINITY® Communications System Generic 1 and Generic 3—Installation and Test</i> , 555-204-104.
Password incorrect	Reenter the correct password. Contact the System Administrator if required.
Path does not exist	On the form being administered, the Call Coverage Path Group number being referenced has not been administered in the System.
Pattern number invalid	Enter a valid routing pattern number in the range 1 through 254.
Permission to change password denied	Your login does not allow you to change the password. Contact the System Administrator if required.
Personal List is not assigned	The referenced Abbreviated Dialing Personal List is not administered in the system.
Personal List previously assigned	The referenced Abbreviated Dialing Personal list has already been administered in the System.
Personal list must be removed before removal	Remove the Abbreviated Dialing Personal List reference from all Station Attendant Console, Data Module, etc., forms, then remove the station.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Personal list requires one digit dial code	Enter Abbreviated Dialing Personal List number 1, 2, or 3.
Pextension with other definitions for same first digit not allowed	On the Dial Plan form—When a pextension (prefixed extension) is administered on the First Digit Table, no other dial type (for example, extension, tac,fac, etc.) or "extension" can be entered on the same row on the table.
Physical channel previously assigned; please select another	The physical channel (Processor Interface port) has already been assigned. Enter an interface port not currently assigned.
Points must be specified consecutively, starting with Point1	On the Call Coverage Paths form—The Point 1, 2, and 3 field entries must be assigned sequentially beginning with Point 1.
Port Circuit must be 01-04 for installed circuit-pack type	Assign ports 01 through 04 only for the circuit pack type installed in the referenced location.
Port Circuit must be 01-06 for installed circuit-pack type	Assign ports 01 through 08 only for the circuit pack type installed in the referenced location.
Port Circuit must be 01-12 for installed circuit-pack type	Assign ports 01 through 12 only for the circuit pack type installed in the referenced location.
Port Circuit must be 01-16 for installed circuit-pack type	Assign ports 01 through 16 only for the circuit pack type installed in the referenced location.
Port Circuit must be 01-24 for installed circuit-pack type	Assign ports 01 through 24 only for the circuit pack type installed in the reference location.
Port has been marked bad; please select another	Assign another unused port on the circuit pack assign a port on another circuit pack of the same type or functionality.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Port must be specified	On the Loudspeaker Paging Access form—A port must be assigned to each Loudspeaker Paging zone to be used.
Port previously assigned; please select another	Assign another unused port on the circuit pack or assign a port on another circuit pack of the same type or functionality.
Pos-busy button required	On the Attendant console form—A "pos-busy" (Position Busy) feature button must be administered on the form.
Primary & Secondary D-Channels have different DS1 parameters	On the Signaling Group form—Certain level one and level two DS1 circuit pack parameters must be the same when used for Primary and Secondary D-channels in the same Signaling Group.
Primary D-Channel can not be empty	On the Signaling Group form—The Primary D-Channel field must have an entry.
Primary/Secondary Output Layout must be either unformatted or expanded	On the Feature-Related System Parameters form—Assign "unformatted" or "expanded" to the Primary and Secondary Output Layout fields as appropriate to obtain SMDR records for NCA-TSCs and CA-TSCs.
Principal's extension must be specified.	On station forms, specify the principal's extension during bridged appearance button administration.
Principal's call appearance button must be specified.	On station forms, specify the principal's call appearance button number during bridged appearance button administration.
Private Networking feature not assigned	The Private Networking feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Processor channel duplicately assigned	Enter an unused processor channel number.
Processor channel not assigned; please select another	The referenced processor channel number has not been administered on the Processor Channel Assignments form.
Processor channel not used for gateway; please select another	On the ISDN TSC gateway form, the specified processor channel is not a gateway application.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Product Id must be all digits	On the Maintenance-Related System Parameters form—The Product ID field entry must be all digits. Information concerning this form is provided in the <i>DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test</i> , 555-230-104.
Product Id must start with a 1	On the Maintenance-Related System Parameters form—The Product ID field entry must start with a "1." Information concerning this form is provided in the <i>DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test</i> , 555-230-104.
Queue Length must be 0 for SDDN service type	On the ISDN-PRI Trunk Group form—The Queue Length field entry must be "0" if the Service Type field entry is "sddn."
Queue Warning Port must be specified since Queue Warning Threshold specified	On the Hunt Group form—If the Calls Warning Threshold field has an entry, the Calls Warning Port field must have an entry.
Queue length total exceeds limit	Enter a Queue Length that is within the range specified for the field. Press [HELP] for a listing of valid inputs or an associated help message.
RNX assigned incorrectly	On the Dial Plan form—The RNX field entries on Pages 2 through 6 must be in the form; R = 2-9, N = 2-9, X= 0-9.
	Two identical RNXs on the UDP are the same length and the first digits of the associated PBX codes are different.
	Two identical RNXs with values entered in the associated local (LCL) fields that are different.
	Two identical RNXs with associated ID field entries (non-blank) and associated PBX ID field entries that are different.
Receive Answer Supervision must be no for incoming trunk groups	On the Trunk Group form—If the Direction field entry is "incoming," enter "n" in the Receive Answer Supervision field.
Reentered password must be specified	Reenter your new password a second time, otherwise, it will not be changed.
Remote PBX ID assigned to ACA on system-parameters features form	On the Feature-Related System Parameters form—The ACA Remote PBX Identification field entry must not be the same as the Local PBX ID field entry on the Dial Plan form.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Remove associated D-Channels from signaling group first	Before changing fields on a DS1 circuit pack form or removing the circuit pack, all associated D-Channel assignments on Signaling Group forms must be removed.
Remove associated trunk boards from signaling group first	Before removing a DS1 circuit pack or changing the Signaling Mode field entry on a DS1 Circuit Pack form to "robbed-bit" or "common-chan," associated DS1 assignments must be removed from NFAS Signaling Group forms.
Remove codes starting with "1" before setting cancellation symbol to "1"	On the Feature-Related System Parameters form—The Authorization Code Cancellation Symbol field cannot be set to a "1" until AC field entries on the Authorization Codes form that begin with a "1" are removed.
Remove trunk boards not containing Primary D-channel before changing to fas	On the Signaling Group form—The Associated Signaling field entry cannot be changed from "n" (NFAS) to "y" (FAS) until all Trunk Brd field entries are removed.
Request Feature Group feature not assigned	The Request Feature Group option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Required abbreviated dialing list not assigned	On a Station's Data Module form—Any attempt to administer the Abbreviated Dialing Dial Code field requires that the Abbreviated Dialing List 1 field must have an entry.
Required data not specified	Reenter valid data. Press [HELP] for a listing of valid entries or an associated help message.
Required data not specified or clear respective Alpha-name	On the Alphanumeric Dialing Table form—An Alpha name has been assigned and its associated Mapped String field is blank. Complete the Mapped String field or remove the Alpha name field entry.
Required data not specified or clear respective Mapped String	On the Alphanumeric Dialing Table form—A Mapped String has been assigned and its associated Alpha name field is blank. Complete the Alpha name field entry or remove the Mapped String.
Requires TN722B or TN767 circuit pack	On the DS1 Circuit Pack form—The DMI-BOS field entry cannot be "y" unless a TN722B or TN767 circuit pack is installed and/or administered.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Requires TN767 circuit pack	On the DS1 Circuit Pack form—The Signaling Mode field entry cannot be "isdn-ext" or "isdn-pri" unless a TN767 circuit pack is installed and/or administered.
Requires the TN777 Network Control board	Install a TN777 Network Control circuit pack.
SAI/PROTOCOL data module must be assigned before enabling link	Add a Processor Interface Data Module (form instructions in Chapter 6), then enable the associated link on the Interface Links form.
SMDR ext cannot be same as PMS or Journal/Log Printer ext	On the Feature-Related System Parameters form—The SMDR Primary and Secondary Output Destination field entries cannot be the same as the Extension of PMS Log Printer and Extension of Journal/Schedule Printer field entries on the Hospitality-Related System Parameters form.
Scheduling table must be administered when scheduled method is selected	On the ISDN-PRI Trunk Group form—If the Scheduled field entry (Page 4) is "y," the scheduling table fields (that is, Act Time and Plan #) must have at least one entry.
Secondary source requires primary synchronization source	On the Synchronization Plan form—The Primary field must be administered before the Secondary field.
Security code invalid	Enter a valid 4-digit security code (used to support the Demand Print Messages function and the retrieval of messages via speech synthesis).
Select one scheduling method	On the ISDN-PRI Trunk Group form—When the Service Type field entry is "cbc" (Page 1) and the Usage Allocation field entry is "y" (Page 4), the Fixed field entry must be "y."
Service Observing feature not assigned	The Service Observing feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Service Point Identifier previously assigned	On the system maintenance form, the specified Service Point Identifier value has already been assigned.
Service type does not match on first page	On the ISDN-PRI Trunk Group form—When the Service Type field entry on Page 1 is not "cbc," the Service/Feature field entries on Page 2 must match the Service Type entry on Page 1.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Service/Feature must be removed from NSF form before removal/change	The Network Facilities form is a display-only type form. Administration must be performed by the Customer Services Support Organization.
Service/Feature must be removed from Routing Pattern form before removal/change	On the Routing Pattern form—The Service/Feature field entries associated with an ISDN-PRI trunk group must be removed from all Routing Pattern forms before the trunk group's Group Type field can be changed or the trunk group removed.
Service/Feature must be removed from TRUNK GROUP form before removal/change	On the ISDN-PRI Trunk Group form—The Service/Feature field entries must be removed before the trunk group's Group Type field can be changed or the trunk group removed.
Service/Feature only valid for CBC trunk groups	On the Routing Pattern form—If the Services/Feature field is assigned an entry, the associated ISDN-PRI Trunk Group form must have its Service Type field entry set to "cbc."
Set Value Group feature not assigned	The Set Value Group option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Signaling Group not assigned. Please select another	The Signaling Group is not administered in the System. Either add the Signaling Group or enter an administered Signaling Group number.
Signaling field on DS-1 form must have ISDN-PRI type	On The DS1 Circuit Pack form—The Signaling Mode field entry must be "isdn-pri" or "isdn-ext."
Signaling mode of this board has to be ISDN-PRI	On the Signaling Group form—The DS1 Interface assigned to the Primary and Secondary D-Channel field must have its Signaling Mode field on the DS1 circuit pack form set to "isdn-pri" or "isdn-ext." Administer the DS1 accordingly.
Signaling mode of this board has to be ISDN-PRI or ISDN-EXT	On the Signaling Group form—When the Associated Signaling field entry is "n" (NFAS), the DS1 circuit pack assigned Trunk Brd fields on the form must have its Signaling Mode field set to "isdn-pri" or "isdn-ext." Administer the DS1 Circuit Pack form accordingly.
Specified service must be removed from routing patterns using this trunk group	On the ISDN-PRI Trunk Group form—When the Service Type field entry is not "cbc," associated Routing Patterns using the trunk group cannot have their Service/Feature field administered [field(s) must be blank].

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Specify the BCC for at least one class to y(es)	On the Routing Pattern form—For each ISDN-PRI trunk group assigned, at least one associated BCC field entry (Page 2) must be set to "y."
Speed invalid with default mode set to "async"; please press help	This only applies to the 7500B Data Module. When the default mode is set to 'sync', valid speeds include 56K and 64K. These are not valid when the default mode is setback to 'async'.
Station can only be assigned to 1 pickup group	Do not assign the station's extension to more than one Call Pickup Group.
Station must be removed and re-added to change set type to or from ASAI	Remove the station using the "remove station XXXXX" command. Then, re-add the station and administer the Type field as "asai."
Station must be removed before Station type can be changed	Remove the station using the "remove station XXXXX" command. Then, re-add the station and administer the Type field as required.
Station must be removed from ICOM group(s) before removal	On the Intercom Group form—Remove the station's extension number from the appropriate form and then remove the station.
Station must be removed from all groups before removal	Remove the station's extension number from all groups (for example, Intercom, Hunt, TEG, Call Coverage, etc.), then remove the station.
Station must be removed from code calling list before removal	On the Loudspeaker Paging Access form—Remove the station's extension number from the Code Calling IDs Ext field, then remove the station.
Station must be removed from cov-ans group(s) before removal	On the Call Coverage Answer Group form(s)—remove the station's extension number from the Ext field, then remove the station.
Station must be removed from coverage path before removal	On the Coverage Paths form—Remove the station's extension number from a Coverage Point (Point 1, 2, 3) field, then remove the station.
Station must be removed from pickup group before removal	On the Pickup Groups form—Remove the station's extension number from the Ext field, then remove the station.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Station must be removed from term-ext group(s) before removal	On the Terminating Extension Group form—Remove the station's extension number from the Ext field, then remove the station.
Station must have a 7103A abbreviated dialing list	On the 7103A Station form—Enter "7103A" in the Abbreviated Dialing List 1, 2, or 3 field.
Suffix must be B-Z or blank	On the Circuit Pack Administration form—Enter a suffix code (B through Z) in the Sfx field. The code should match the code on the installed circuit pack.
Sum of Min# Chan exceeds total number of trunk members	On the ISDN-PRI trunk Group form—The Min# Chan field entry (Page 3) must be less than the total number of channels (trunk members) in the trunk group.
Synchronization sources must be in same port network	On the Synchronization Plan form—The Primary and Secondary field references must be located in the same Port Network (one through three).
System Printer ext cannot be same as PMS or Journal/Log Printer ext	On the Feature-Related system Parameters form—The Printer Extension field entry (Page 4) must be different than the Extension of the PMS Log Printer and Extension of Journal/Schedule Printer field entries on the Hospitality-Related System Parameters form.
System limit of 10 CBC trunk groups has been reached	On the ISDN-PRI Trunk Group form—The Service Type field entry cannot be "cbc" because the System's maximum of 10 CBC trunk groups have already been assigned.
System limit of 1000 entries has been reached	The combined entries in the System's HNPA and RHNPA Tables is set at 1000 entries.
System limit of 233 Incoming Call Handling entries has been reached	On the ISDN-PRI Trunk Group form—The Incoming Call Handling Table (Page 2) cannot have more than 288 entries.
System must be taken out of night service before removal/change	The system must be taken out of Night Service before associated fields on forms can be changed or an object removed.
System or group list requires two digit dial code	Enter an appropriate Abbreviated Dialing 2-digit dial code. A 2-digit code is required when referencing System and Group lists.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
System resource limit has been reached	The system's allocated memory space that is shared between AAR/ARS Analysis Tables, AAR/ARS Digit Conversion Tables, and the Toll Analysis Table has been filled. New assignments cannot be made unless current assignments are removed.
TAC assigned	Enter a new Trunk Access Code that agrees with the System's Dial Plan.
TAC invalid; please check dialplan	The TAC first digit does not agree with the first digit assigned TACs on the Systems Dial Plan form.
TAC must be specified	On the Loudspeaker Paging Access form—A TAC must be specified for each Voice Paging or Code Calling port assigned.
TN Code of a circuit pack can not be blank	On the circuit Pack Administration form—Enter the complete circuit pack code when administering a circuit pack Enter "TN" plus three digits to complete the entry.
The maximum number of ASAI endpoints is already administered	Up to eight ASAI Link Interfaces may be administered in the System.
The maximum number of BRI endpoints is already administered	The maximum number of 1000 BRI endpoints has already been administered. This includes both voice, integrated voice/data, data endpoints, and ASAI endpoints.
The maximum number of data modules is already administered	The maximum number of data modules that can be administered has been reached.
The maximum number of stations is already administered	Up to 1600 stations can be administered. In addition, up to 1600 phantom extensions can be administered (Administration Without Hardware feature).
This D-Channel is duplicately assigned. Please select another	On the Signaling Group form—A D-Channel port cannot be assigned to more than one Signaling Group, no matter if it is assigned as a Primary or Secondary D-Channel port.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
This Trunk Board does not belong to this Signaling Group	On the ISDN-PRI Trunk Group form—The Sig Grp field entry (Pages 5 through 11) is not associated with the Port entry (that is, the Port field entry is not associated with the referenced Signaling Group on the respective Signaling Group form).
This field cannot be assigned to this port and board; please enter blank	On the Trunk Group form—The Mode, Type, and Answer Delay fields on the trunk member assignments pages require that associated Port assignments be a TN722, TN760B, or TN767 circuit pack type.
This field cannot be blank for RLT applications	On the Release Link Trunk Group form—When the Group Type field entry is "rlt," the Incoming Destination field must have an entry.
This station extension must be specified	On the Station form—The Extension field associated with this form must be completed. The extension number entered must agree with the System's Dial Plan form.
Time of Day Routing Feature not assigned	The Time of Day Routing feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Timeout must be specified	On the Loudspeaker Paging Access form—The Voice Paging Timeout field must have an entry.
Toll Restriction not allowed with automatic trunks	On the Trunk Group form—The Toll Restricted field entry must be "n" for automatic trunks.
Total Min minus length of dialed string must be greater than or equal to three	On the AAR/ARS Analysis form—For those entries associated with a Route Pat (Routing Pattern) field entry of "r1-r32" (RHNPA translations required), the total Min field entry minus length of the D-String entry must be greater than or equal to three.
Total number of CA-TSCs over the system limit	On the signaling group form, the specified number of CA-TSCs exceeded the system limit.
Total number of NCA-TSCs over the system limit	On the signaling group form, the specified number of NCS-TSCs exceeded the system limit.
Total number of administered NCA-TSCs over the system limit	On the signaling group form, an attempt was made to administer a greater number of NCA-TSCs than is supported by the system.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
Total number of entries has reached the limit	The maximum allowable entries for this field has been reached. You must remove a current entry before a new entry can be assigned.
Total number of permanent NCA-TSCs must be <= to Max Num of NCA-TSCs	On the signaling group form, total number of administered permanent NCA-TSCs must be less than or equal to the maximum number of NCA-TSCs specified on Page 1.
Total number of permanent TSCs must be less than this value	(Reserved for future use)
Total number of permanent TSCs must be less than the maximum number of NCA-TSCs to allow for as-needed TSCs	On the signaling group form, to allow for as needed TSCs, the total number of permanent TSCs must be less than the maximum number of NCA-TSCs.
Trunk Type must be ground-start to enable Abandoned Call Search	On the Trunk Group form—The Abandoned Call Search field entry cannot be "y" if the Trunk Type field entry is other than "ground-start."
Trunk board is duplicately assigned	The circuit pack port has already been assigned. Assign another circuit pack port of the same type or functional.
Trunk group in a routing pattern - cannot change to incoming	On the Trunk Group form—You cannot change the Direction field entry to "incoming" if the trunk group is assigned on a Routing Pattern form. Remove the trunk group from the routing pattern, then change the Direction field.
Trunk group must be removed from all routing patterns before removal	Remove the trunk group from all routing patterns, then remove the trunk group.
Trunk night service buttons must be removed before removal	On the Station form—Remove all Trunk Night Service feature buttons that point to this trunk group. Then, remove the trunk group.
Trunk type must be specified first	On the Trunk Group form—Complete the Group Type field entry.
UDP extension must be local	Enter a local UDP extension that agrees with the System's Dial Plan form.

TABLE 3-B (continued).
System Error Messages

Error Message	Description
UDP inconsistent with AUDIX Extension in remote AUDIX hunt group	On the Hunt Group form—The AUDIX Extension field entry (field only displayed if the Message Center field entry on the form is "rem-audix"), is not in agreement with UDP extensions entered on the System's Dial Plan form.
Uniform Dialing Plan feature is not assigned	The UDP option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Unique entry cannot be selected -- enter more digits or '#' sign	When using the AAR/ARS "list route-chosen" command, the Dialed Number string (part of input command) is incomplete or must end with a # symbol.
Usage Allocation Schedule Plan is not administered	On the ISDN-PRI Trunk Group form—If the Fixed field entry is "y," the Allocation Plan Number field must be assigned a number (one through three).
Use printable characters only	Do not enter space-bar characters or other non-printable characters.
Vectoring (Basic) feature not assigned	The Vectoring (Basic) feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Vectoring (Prompting) feature not assigned	The Vectoring (Prompting) feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.
Voice Paging and/or Code Calling data must be specified	On the Loudspeaker Paging Access form—Complete at least one Voice Paging or Code Calling TAC/COR pair assignment.
Warning Threshold must be less than or equal to Queue Length	On the Hunt Group form—The Calls Warning Threshold field entry must be less than the Queue Length field entry.
Warning Threshold must be specified since Warning Port specified	On the Hunt Group form—If the Calls Warning Port field has an entry, the associated Calls Warning Threshold field must have an entry.

TABLE 3-B (continued).
System Error Messages

Error Messages	Description
X not supported for sets with data modules	On the Station form—The Port field cannot have an "x" as a valid entry (supports the Administration Without Hardware feature) if a Data Module is assigned to the station.
X not supported for this object	On the Access Endpoint form—An "x" is not a valid Port field entry. An "x" is permitted as the Port field entry on certain Station forms in support of the Administration Without Hardware feature.
X not supported for this set type	An "x" is not a valid entry in the Port field on this form. An "x" is permitted as the Port field entry on certain Station forms in support of the Administration Without Hardware feature.

CHAPTER 4. SYSTEM FEATURES, FUNCTIONS, AND SERVICES

Overview

This chapter lists the forms and fields required to implement features associated with the System.

A brief description of each feature requiring implementation is given along with associated procedures and hardware requirements. A reference table is provided for each feature. The table provides a list of System forms required to assign the feature, the fields on the form(s) requiring completion, and page locations for instructions. The forms are listed in the tables in the order they should be completed. A listing of the forms with associated instructions and additional information, if applicable, is provided immediately following the table. Examples are provided for complex features. Blank forms are provided in the accompanying "Blank Forms Package".

This chapter does not attempt to discuss any feature in detail. Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for detailed feature descriptions.

System features can be categorized into six functional areas: Voice Management, Data" Management, Network Services, System Management, Call Management, and Hospitality Features. A list of features by these functional areas is provided on the following pages. Features requiring no implementation are denoted with an asterisk (*) on the list. Features requiring implementation are described individually following the functional list.

VOICE MANAGEMENT FEATURES
Abbreviated Dialing
Attendant Auto-Manual Splitting *
Attendant Call Waiting *
Attendant Control of Trunk Group Access
Attendant Direct Extension Selection With Busy Lamp Field
Attendant Direct Trunk Group Selection
Attendant Display
Attendant Recall *
Attendant Release Loop Operation *
Audio Information Exchange (AUDIX) Interface
Authorization Codes
Automatic Callback
Automatic Incoming Call Display *
Automatic Wakeup
Bridged Call Appearance—Single-Line Voice Terminal
Bridged Call Appearance—Multi-Appearance Voice Terminal
Busy Verification of Terminals and Trunks
Call Coverage
Call Forwarding—All Calls
Call Management System (CMS)
Call Park
Call Pickup
Call Waiting Termination
Centralized Attendant Service
Class of Restriction
Class of Service
Code Calling Access
Conference—Attendant *
Conference—Terminal *
Consult
Coverage Callback
Coverage Incoming Call Identification
Demand Print
Dial Access to Attendant *
Dial Plan
Dialed Number Identification Service
Direct Department Calling
Direct Inward Dialing
Direct Outward Dialing
Distinctive Ringing (Alerting)
Emergency Access to the Attendant
Facility Busy Indication
Forced Entry of Account Codes
Go to Cover
Hold
Hot Line Service
Hunting
Individual Attendant Access
Integrated Directory

VOICE MANAGEMENT FEATURES (Cont'd)
Intercept Treatment
Intercom—Automatic
Intercom—Dial
Inter-PBX Attendant Calls
Intra-switch SMDR
Last Number Dialed
Leave Word Calling
Line Lockout *
Loudspeaker Paging Access
Loudspeaker Paging Access—Deluxe
Manual Message Waiting
Manual Originating Line Service
Manual Signaling
Multi-Appearance Preselection and Preference
Multiple Listed Directory Numbers
Music-on-Hold Access
Night Service—Hunt Group
Night Service—Night Console Service
Night Service—Night Station Service
Night Service—Trunk Answer From Any Station
Night Service—Trunk Group
Personal Central Office Line *
Personalized Ringing
Power Failure Transfer *
Priority Calling
Privacy—Attendant Lockout
Privacy—Manual Exclusion
Recall Signaling *
Recorded Announcements
Recoded Telephone Dictation Access
Remote Access
Restricted/Unrestricted Call Lists
Restriction—Toll
Restriction—Controlled
Restriction—Miscellaneous Terminal
Restriction—Miscellaneous Trunk
Restriction—Voice Terminal—Inward
Restriction—Voice Terminal—Manual Terminating Line
Restriction—Voice Terminal—Origination
Restriction—Voice Terminal—Outward
Restriction—Voice Terminal—Termination
Ringback Queuing
Ringer Cutoff
Rotary Dialing *
Send All Calls
Senderized Operation *
Single-Digit Dialing and Mixed Station Numbering
SMDR Account Code Dialing

* Feature does not require implementation.

VOICE MANAGEMENT FEATURES (Cont'd)	NETWORK SERVICES FEATURES (Cont'd)
Straight Forward Outward Completion * Temporary Bridged Appearance * Terminating Extension Group Through Dialing * Timed Reminder Touch-Tone Dialing * Transfer * Trunk Flash Trunk Group Busy/Warning Indicators To Attendant Trunk Identification By Attendant Trunk-to-Trunk Transfer Uniform Call Distribution Voice Message Retrieval Voice Terminal Display	DCS Call Waiting * DCS Distinctive Ringing * DCS Leave Word Calling DCS Multi-Appearance Conference/Transfer * DCS Trunk Group Busy/Warning Indication Facility/Non Facility Associated Signaling Facility Restriction Levels and Traveling Class Marks Generalized Route Selection Integrated Services Digital Network—Primary Rate Interface Network Access—Private Network Access—Public Off-Premises Station Software Defined Data Network Subnet Trunking Time of Day Routing Uniform Dial Plan
DATA MANAGEMENT FEATURES	SYSTEM MANAGEMENT FEATURES
Alphanumeric Dialing Data Call Setup Data Hot Line Data-Only Off-Premises Extensions Data Privacy Data Restriction Default Dialing Digital Multiplexed Interface (DMI) Administered Connection/Access Endpoint DS1 Tie Trunk Service EIA Interface Information System Network (ISN) Interface Modem Pooling	Administration Without Hardware Customer-Provided Equipment Alarm Enhanced Terminal Administration Facility Test Calls Move Agent From CMS * Recent Change History * Report Scheduler and System Printer Security Violation Notification Station Message Detail Recording (SMDR) System Measurements * System Status Reports *
NETWORK SERVICES FEATURES	HOSPITALITY FEATURES
AAR/ARS Partitioning Adjunct-Switch Application Interface Automatic Alternate Routing Automatic Circuit Assurance Automatic Route Selection Call by Call Service Selection Calling Party Number/Billing Number D-Channel Backup Distributed Communications System (DCS) DCS Alphanumeric Display for Terminals DCS Attendant Control of Trunk Group Access DCS Attendant Direct Trunk Group Selection DCS Attendant Display DCS Automatic Callback DCS Automatic Circuit Assurance DCS Busy Verification of Terminate and Trunks DCS Call Forward—All Calls	Automatic Wakeup Do Not Disturb Names Registration Property Management System Interface
	TELEMARKETING FEATURES
	Abandoned Call Search Agent Call Handling (includes Call Work Codes and Stroke Counts) Automatic Call Distribution Basic Call Management System (BCMS) Call Prompting Call Vectoring Inbound Call Management Intraflow and Interflow Lookahead Interflow Outbound Call Management System Queue Status Indications Service Observing

* Feature does not require implementation.

AAR/ARS Partitioning

Provides for the Automatic Alternate Routing (AAR) and Automatic Route Selection (ARS) services to be partitioned among as many as eight different groups of users within the System.

Note that the ARS/AAR Partitioning feature must be enabled on the System-Parameters Customer-Options form before fields and associated fields on forms can be administered.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	Partitioned Group Number (PGN)	6-72
ARS Analysis	Partitioned Group Number	5-15
AAR Analysis	Partitioned Group Number	5-40
Time of Day Routing	All	5-34

- Class of Restriction Form—Assign a Partitioned Group Number (1 through 8) that is used by AAR/ARS features to select the AAR/ARS service for a group of users. The PGN field on the COR form is only displayed if the ARS/AAR Partitioning option is enabled and the Time of Day Routing option is not enabled on the System Parameters Customer options form.
- ARS Analysis Form—Complete the Partitioned Group Number field as required.
- AAR Analysis Form—Complete the Partitioned Group Number field as required.
- Time of Day Routing Form—Complete one form for each PGN as required. Note that the Time of Day Routing option must be enabled on the System Parameters Customer Options form before a Time of Day Routing form can be administered.

Hardware Requirements

None.

Abandoned Call Search

Provides identification of abandoned calls. Before an incoming trunk call to a hunt group or Automatic Call Distribution (ACD) split rings the hunt group member or agent, the System checks to ensure that the calling party has not abandoned the call (that is, hung up). If the call has been abandoned, the call will not ring the hunt group member or agent.

Note: Abandoned Call Search is designed to work with CO trunks (ground start—analogue) that *do not* provide disconnect supervision. Central offices that provide disconnect supervision should not administer the Abandoned Call Search feature.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Central Office Trunk Group	Abandoned Call Search	5-123
Foreign Exchange Trunk Group	Abandoned Call Search	5-180
WATS Trunk Group	Abandoned Call Search	5-284

- Trunk Group Forms—Complete Abandoned Call Search field.

Hardware Requirements

Each CO trunk requires a port on the TN747C Central Office Trunk circuit pack.

Abbreviated Dialing

Provides lists of stored numbers that can be accessed to place local, long-distance, and international calls; to activate features; or to perform end-to-end signaling. (End-to-end signaling allows access to remote computer equipment.) Stored numbers can be accessed by voice terminal users and data terminal users.

Note: There can be a maximum of 2000 Abbreviated Dialing (AD) lists per system.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	AD List 1 Access Code AD List 2 Access Code AD List 3 Access Code Program Access Code	6-127
Abbreviated Dialing 7103A Button Assignment	All	6-16
Station (multi-appearance)	AD List 1 AD List 2 AD List 3 Button/Feature Button Assignments -AD Buttons Hot Line Destination-AD List Number (if applicable)	6-245
Console Parameters	List 1, 2, 3	6-79
Attendant Console	Feature Button Assignments -AD Buttons	6-32
Abbreviated Dialing System List	All	6-13
Abbreviated Dialing Group List	All	6-6
Abbreviated Dialing Personal List	All	6-11
Abbreviated Dialing Enhanced List	All	6-2

Form	Field	Form Instructions (Page #)
Data Line Data Module	List1:	6-89
Feature-Related System Parameters	Off-Premises Tone Detect Timeout Interval	6-133

- Feature Access Codes Form—Verify that all feature access codes for accessing lists and programming entries in a personal list have been established in the “Abbreviated Dialing List 1, List 2, and List 3 Access Code and Program Access Codes” fields.
- Abbreviated Dialing 7103A Button Assignment Form—Complete all fields of the 7103A list if the System uses 7103A Fixed Feature Voice Terminals.
- Station Forms—Assign lists to voice terminal's AD field. On multi-appearance voice terminals, optionally assign buttons to access an AD list entry. For example, if entry 1 on the System List is the number of a branch office in London, then this entry can be assigned to a button. The call can be placed by lifting the receiver and pressing the button. Similarly, entries from a group or personal list can be assigned to a button. Users can program buttons which are assigned to an AD personal list entry.

Some features have a button directly associated with them; others do not. For example, a Call Pickup button can be assigned to a multi-appearance voice terminal, whereas a Priority Calling button cannot. To associate Priority Calling with a button, assign the Priority Calling feature access code to an AD list (normally the System List) and then assign that list entry to the button. This is exactly the same procedure as discussed in the preceding paragraph. The only difference is that the AD list entry is a feature access code instead of a telephone number.

Certain voice terminals supported by the System are capable of storing numbers. Like AD, a stored number is automatically dialed when the associated button is pressed. This, however, is Repertory Dialing, not AD. In this case, the number is stored in the voice terminal, not in the System. AD only applies for numbers stored in the System.

- Console Parameters Form—Assign lists to Console Parameters AD field.
- Attendant Console Form—Assign AD list button to attendant console.
- AD System List Form—Establish a System List. Complete all fields.
- Abbreviated Dialing Group List Form—Establish Group Lists. Contact personnel who will use Abbreviated Dialing Group List to determine the codes or numbers that should be entered on the various Group Lists. Blank lists can be established and codes or numbers can be added later. Also, specify if calls to numbers on this list should be privileged. Complete all fields.
- Abbreviated Dialing Personal List Form—Establish Personal Lists. Users can program their own Personal List once the list is in the System via the System's administration terminal. Complete all fields.

- Abbreviated Dialing Enhanced List Form—Establish an Enhanced List. Complete all fields. (Note that the Abbreviated Dialing Enhanced List option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.)
- Data Line Data Module Form—Assign lists to Data Module List 1 field.
- Feature-Related System Parameters Form—Assign the Off-Premises Tone Detect Timeout Interval (5 through 25 seconds). The AD special “wait” character, when used in an AD string, will cause a delay in the continued dialing of numbers in the string until this interval has elapsed. This interval is the number of seconds that a Call Progress Tone Receiver (Detector) will wait to detect a tone from off-premises during dialing. Once the time-out interval occurs, any additional call progress tones will not be detected.

Hardware Requirements

Additional TN748C Tone Detector circuit packs (up to five per System) may be required if the AD special “wait” character is to be used frequently. Several “wait” characters in an AD string may “tie up” a Tone Detector for an extended period (see Feature-Related System Parameters above).

Access Trunk Group

An Access Trunk Group provides the System with the ability to communicate with another PBX as either a main or a tandem switch in an Electronic Tandem Network arrangement. Trunks in this group will not send or receive Traveling Class Marks.

Note: An ISDN-PRI trunk group whose Service Type field is “access” can also function as an access trunk group.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Access Trunk Group	All	5-98

- Access Trunk Group Form—Complete all fields as required.

Hardware Requirements

A port is required on a TN722B, TN760C, or TN767 circuit pack for each trunk to be assigned in the Access Trunk Group. A TN722B or TN767 provides 24 ports and a TN760C provides four ports.

Administered Connection/Access Endpoint

The **Administered Connection** feature provides the capability to establish end-to-end connections between two access/data endpoints based on Administered Connection attributes. An Administered Connection is automatically established by the System whenever the Administered Connection is scheduled or manually enabled to become active. Administered Connections provide capabilities such as: alarm notification, including an administrable alarm type and threshold; automatic restoration of connections established over a Software Defined Data Network (SDDN) ISDN-PRI trunk group (service may be referred to as ISDN-PRI (Administered Connection/Access Endpoint) Service); scheduled as well as manually enabled connections; and administrable retry interval for connection attempts that have failed.

The SDDN provides virtual private line connectivity using the AT&T Switched Network (via 4 ESS™ switch). Access to the service is provided via a valid SDDN trunk group. The Destination field entry on the Administered Connection form is used by the system to route the Administered Connection when it is due to be active, based on associated Authorized Time Of Day field entries.

The Administered Connection feature replaces the Permanent Switched Calls feature that was provided in previous releases of the System.

An Administered Connection can be established between two endpoints on the same switch; between two endpoints in the same private network, but on different switches; or between one endpoint on the controlling switch and another endpoint off the private network. In all configurations, the originating endpoint and the Administered Connection must be administered on the same DEFINITY Generic 3i switch.

For an Administered Connection in a private network, if the two endpoints are on two different switches, normally the connection will be routed via AAR through tie trunks (that is, ISDN-PRI, DS1, or analog tie trunks) and possibly intermediate switches. However, if required, the connection can be routed via ARS and the Generalized Route Selection (GRS) features through the public network. The call is routed over associated ISDN-PRI trunk group members (that is, trunks). When the far-end answers, a connection is “setup” between the far-end and the extension number entered in the Originator field on the Administered Connection form.

The **Access Endpoints** feature provides the ability to terminate Administered Connections to non-signaling trunks and thus use these trunks as endpoint facilities. This feature allows for the administration of a single trunk (that is, does not require an entire trunk group) providing the capability to assign an extension number to an individual trunk.

Access Endpoints are non-signaling trunk ports and therefore neither generate signaling to the far-end of the trunk nor respond to any signaling from the far-end. Therefore, an Access Endpoint cannot be used as a trunk to route between switches. It is used primarily to support devices, switches, or services which have a trunk interface but do not require signaling on the trunk. An Access Endpoint may be designated as the originating (local) endpoint or destination endpoint in an Administered Connection. This provides a trunk-to-trunk cross-connect capability.

The maximum number of trunks (including access endpoints) that can be administered is 400 (that is, equal to the maximum trunks that can be administered).

The following are typical Administered Connection applications:

- A local data endpoint connection to a local or remote access endpoint. Examples are: an MPDM ACCUNET® data endpoint (data module) connecting to a SDDN via an ISDN-PRI trunk group DS1 port; an MPDM ACCUNET data endpoint (data module) connecting to an ACCUNET Switched 56 Service via a DS1 port.
- A local access endpoint connecting to a local or remote access endpoint. Examples are a DSO cross-connect and a 4-wire leased line modem to a 4-wire leased line modem connection via an analog tie trunk.
- A local data endpoint connecting to a local or remote data endpoint such as a connection between two 3270 data modules.

The maximum number of Administered Connections that can be administered is 128.

Note that the following guidelines do not include AAR, ARS, or GRS administration information in support of routing Administered Connection calls over trunk groups. Refer to the respective feature coverage elsewhere in this chapter for that information.

Administration

To implement this feature, the following form(s) or section(s) of forms must be completed:

Form	Field	Form Instructions (Page #)
Data Module	All	6-83
Circuit Pack (trunks)	All	6-71
Access Endpoint	All	6-18
Trunk Group	All	
ISDN-PRI		5-195
Tie		5-247
COR	All	6-72
COS	All	6-77
Dial Plan	Local PBX ID	6-117
Administered Connection	All	6-23
Station (multi-appearance)	Button/Feature Button Assignments -ac-alarm	6-245
Attendant Console	Feature Button Assignments -ac-alarm	6-32

- Data Module Form—Complete the appropriate Data Module forms (for example, MPDM or MTDM) if the Administered Connection involves one or two local data modules.

- Trunk Circuit Pack Form—Non-signaling DS1 or analog tie trunk ports, if required as access endpoints, may be administered as ports but not as members of trunk groups. Assign associated circuit packs using the Circuit Pack form instructions as provided in Chapter 2. These circuit packs must be assigned before the port field on the Access Endpoint form can be completed.
- Access Endpoint Connection Form—Complete all fields as required. Complete a form for each Access Endpoint to be defined.
- Trunk Group Form—Complete the appropriate trunk group form for Administered Connection calls that are to be routed via AAR or ARS and GRS over associated trunk group members.
- COR Form (Optional)—Administer appropriate class of restrictions (CORs) so that only an Administered Connection endpoint can be connected to another Administered Connection endpoint. If a non-Administered Connection endpoint calls an Administered Connection endpoint, intercept treatment will be given the non-Administered Connection endpoint.
- COS Form—Administer class of service (COS) assignments so that the originating and destination endpoints are blocked from using the Call Forwarding All Calls feature.
- Dial Plan Form—The Auto Restoration field on the Administered Connection form cannot be set to “y” (yes) unless the Local PBX ID field on the Dial Plan form is other than blank. Insure that all far-end destinations as administered on the Administered Connection form are accounted for on the Dial Plan form.
- Administered Connection Form—Complete all fields as required. Complete a form for each Administered Connection to be established. Note that the Originator (and Destination if local) fields must be administered and be a valid extension of an access or data endpoint before the Administered Connection form can be administered.
- Station/Attendant Console Form—Administer “ac-alarm” feature buttons as required. The associated status lamp is used to indicate an Administered Connection alarm.

Hardware Requirements

- Trunk Circuit Packs—DS1 Interface circuit pack [TN767 or TN464C (International G1.2SE only)], Analog Tie Trunk (TN760C).
- TN754B Digital Line circuit pack connections including:
 - MPDM (700A, 700D), MTDM (700B, 700C, 700E)
 - 7400A or 7400B Data Module
 - 7401D Voice Terminal with 7400B Data Module
 - 7403D/7405D/7407D/7410D/7434D Voice Terminal with DTDM or 7400B Data Module
 - 7404D or 7406D Voice Terminal
 - 510D Personal Terminal
 - 515 or 615 BCT or 715 BCS Terminal
 - PC/PBX Connection

- TN556 ISDN-BRI Line and TN778 Packet Control circuit pack connections including:
 - 7500B Data Module
 - 7505D/7506D/7507D Voice Terminal with ADM
- Pooled Modem (TN758)

Administrable Timers (International G1.1SE and G1.2SE)

The following circuit packs provide administrable timers to support varied international trunk interface requirements:

- TN429 Direct Inward and Outward Dial (DIOD) Trunk Circuit Pack (G1.2SE only)
- TN464C 32 Channel DS1 Circuit Pack (G1.2SE only)
- TN465 Loop Start Circuit Pack (G1.1SE and G1.2SE)

Appropriate fields have been added to the Access, CO, DID, DIOD, FX, PCOL, Tandem, Tie, and WATS trunk group forms for administering these timers. The following table provides a summary of these administrable timers:

TABLE 4-A. Administrable Timers

Timer	Range (ms)	Granularity (ms)	Default (ms)
Incoming Disconnect	50-12750	50	300
Outgoing Disconnect	50-12750	50	300
Outgoing Dial Guard	200-25600	200	1000
Incoming Glare Guard	200-25600	200	3000
Outgoing Glare Guard	200-25600	200	3000
Outgoing Rotary Dial Interdigit	150-2550	10	600
Ringing Monitor (CO*, FX*, WATS*, PCOL*, DID**, DIOD**)	200-51000	200	5000
Ringing Monitor (Tie**, Tandem**, Access**)	200-25500	100	5000

* With G1.1SE and G1.2SE.

** With G1.2SE only.

Timer	Range (ins)	Granularity (ins)	Default (ins)
Incoming Seizure	20-2550	10	130
Make	1 0/20 pps***		
Break	1 0/20 pps***		

*** The Make/Break timing is selectable in 5 ms increments. For 10 pps (pulses per second), Make/Break values are variable from 20 to 80 ms and must sum to 100; for 20 pps, Make/Break values are variable from 10 to 40 ms and must sum to 50. The default values for 10 pps is 40 ms for Make and 60 ms for Break. The default values for 20 pps is 20 ms for Make and 30 ms for Break.

In addition to the above administrable timers, rotary outpulsing timing can be adjusted on the TN465. The rate is selectable as either 10 pps or 20 pps.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page)
Trunk Groups: Access CO DID DIOD FX PCOL Tandem Tie WATS	Administrable Timers Page	5-98 5-123 5-156 5-167 5-180 5-217 5-232 5-247 5-264

Hardware Requirement

Any of the following circuit packs supports the Administrable Timers feature:

- TN429 DIOD Trunk circuit pack (G1.2SE only)
- TN464C 32-Channel DS1 Circuit Pack (G1.2SE only)
- TN465 Loopstart Circuit Pack (G1.1SE and G1.2SE)

Administration Without Hardware

Provides the ability to administer station forms without specifying a port location. Stations administered as such will not cause alarms or errors to be generated when the station is translated but not yet installed. These station types are referred to as “phantom” stations. The feature supports the following applications:

- Ability to administer station forms without specifying a port location.
- Ability by use of a phantom extension to provide call coverage (including AUDIX coverage) for users who do not have stations physically located on the switch.
- Ability to use phantom extensions for ACD DNIS. This application allows a phantom extension to be administered on the switch for each call type that needs to be identified to ACD agents. The phantom extension is either “Call Forwarded” (via an attendant console) to an ACD split, or its coverage path is defined to include the ACD split. The Name field that is administered for the phantom extension will identify to the ACD agent which service the caller is attempting to reach, allowing the agent to properly address the caller.
- Ability to store station templates that can later be used with the **duplicate station** command when implementing many station forms of the same type in the System.

The primary use of the Administration Without Hardware feature is to streamline system initializations, major additions, and rearrangement/changes by allowing voice terminal translations to be entered before the actual ports are assigned. Port assignments can be done at a later time, as required.

The use of this feature is limited to analog, DCP (7400D series of terminals), and hybrid terminal types.

Note: This feature is not supported on ISDN-BRI stations, ISDN-BRI data modules, or ASAI links.

Appropriate instructions are provided in each of the voice terminal administration instructions provided in Chapter 6, specifically the administration of the Port field on the station forms.

Administration

To implement this feature, the following forms or sections of forms must be completed:

Form	Field	Form Instructions (Page #)
Station (Analog)	Port	6-245
Station (Hybrid)	Port	6-252
Station (DCP)	Port	6-287

- Station Forms—Enter an “X” in the Port field to indicate that there is no hardware associated with the station administration. Complete the remaining fields on the station form as required per the station type.

Advanced Private Line Termination (APLT) Trunk Group

An Advanced Private Line Termination (APLT) Trunk Group provides access to and termination from private line networks. The private network may be a Common Control Switching Arrangement (CCSA) or an Enhanced Private Switched Communications Service (EPSCS) network. If the trunk group is assigned as external, incoming calls will have a 2-burst distinctive ringing signal.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
APLT Trunk Group	All	5-112

- APLT Trunk Group Form—Complete all fields as required.

Hardware Requirement

A port on a TN760C Tie Trunk circuit pack or TN722B or TN767 DS1 Tie Trunk circuit pack is required for each trunk to be assigned in the APLT Trunk Group. A TN760C provides four ports for 4-wire E&M lead signaling. A TN722B or TN767 provides 24 ports for tie trunks, release link trunks, and APLT trunks.

Agent Call Handling

Provides Automatic Call Distribution (ACD) agents with the various capabilities required to answer and process ACD calls. When the Forced Entry option is enabled for a split, agents are required to complete a Stroke Count or Call Work Code entry for every call answered in the Manual-In mode.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed. Also, refer to the ACD feature coverage.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Complete Feature Access Codes for Automatic Call Distribution Features	6-127
Hunt Groups	Forced Stroke Count or Call Work Code	6-160
Station (multi-appearance)	Button/Feature Button Assignments -manual-in -auto-in -aux-work -after-call -assist -release -work code -stroke-cnt	6-245
Stations	Auto Answer	6-245
Attendant Console	Feature Button Assignments -after-call -assist -auto-in -aux-work -manual-in -release -work code -stroke-cnt Auto Answer	6-32

- Feature Access Codes Form—Assign ACD features as needed.
- Hunt Group Form—Enter “y” (yes) in the Forced Stroke Count or Call Work field if either a Stroke Count or Call Work Code must be entered for each call answered by an agent when in the Manual-In mode. Note that the Call Work Codes option must be enabled on the System-Parameters Customer-Options form before the Forced Stroke Count field can be enabled.
- Station Forms—Assign Agent Call Handling feature buttons to multi-appearance stations as needed. Enter “y” in the Auto Answer field if an incoming call is to be automatically answered by an ACD agent.
- Attendant Console Form—Assign Agent Call Handling feature buttons to the Attendant Console as needed. Enter “y” in the Auto Answer field if an incoming call is to be automatically answered without any action (no button presses) by the attendant.

Hardware Requirements

None.

Alphanumeric Dialing

Allows a terminal user to place a data call using the Data Call Setup feature and an alphanumeric string or alpha-name for the call destination address. For example, a user can type "abcdef" instead of "9+1-403-253-1234+%0000" to make a call. Users need only remember the alpha-name of the far-end terminating point instead of the actual digit string to complete a call. Alphanumeric names can be mixed in with normal digit dialing strings for data call setup.

Alphanumeric Dialing allows a system administrator to change a "mapped string" (actual digit dialing address) without having to inform all users of a changed dial address. Users simply dial the associated alpha name to complete calls.

Refer to the Data Call Setup feature coverage provided elsewhere in this chapter for a complete listing of functions available when using Data call Setup.

Administration

To implement this feature, the following form must be completed:

Form	Field	Form Instructions (Page #)
Alphanumeric Dialing Table	-Alpha-name -Mapped String	6-29

- Alphanumeric Dialing Table Form—Complete a "Alpha-name/Mapped String" dialing pair for each combination to be defined.

Hardware Requirements

None.

Answer Detection

Provides improved accuracy of the call duration in the call detail records generated by the Station Message Detail Record (SMDR) process. The primary responsibilities of the SMDR process are to collect call detail information on trunk groups and/or internal stations (see section on Intra-switch in this chapter) from the software and to format and send that data to an external collection device. This feature allows the SMDR process to generate an outgoing call detail record when a call is answered by relying on the answer detection capability of the TN744 Call Classifier circuit pack to report the state of the call prior to the arrival of Timed Far End Answer Supervision. The TN744 Call Classifier circuit pack is used instead of the TN748C Tone Detector circuit pack for this feature.

Administration

This feature, which is used in conjunction with the Hospitality feature, can be enabled or disabled from the first page of the System-Parameters Customer-Options form.

Note: Procedures covering the use of the System-Parameters Customer-Options form are provided in *DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test*, 555-230-104. See also *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201 for a description of this feature.

Form	Field	Form Instructions (Page #)
System-Parameters Customer-Options	Answer Supervision by Call Classifier?	6-212

System-Parameters Customer-Options Form—When “y” (yes) is entered in the Answer Supervision by Call Classifier field, it means that any CO, FX, and WATS outgoing trunk calls using trunks that do not receive Network Answer Supervision will automatically be classified by the TN744 Call Classifier circuit pack. If “n” (no) is entered, the TN744 circuit pack will not be used. The SMDR process will use the arrival of Network or Timed Far End Answer Supervision as the start time. The default value for this feature is “No.”

Note: The SMDR process should be enabled to generate call detail records.

Asynchronous Data Module (ADM)

The Asynchronous Data Module (ADM) is a BRI data module that may be used with asynchronous DTE as a data stand for 7500 Series of BRI voice terminals, thus providing connection to the ISDN network. The ADM provides integrated voice and data on the same voice terminal and supports data rates of 300, 1200, 2400, 4800, 9600, and 19200 bps. The ADM is an adjunct to BRI voice terminals and cannot be used in a stand-alone manner. This module also supports the Hayes command set, providing compatibility with PC communications packages.

Note: See also the “Integrated Services Digital Network—Basic Rate Interface” and “Data Modules” sections in this chapter. Refer also to the section dealing with the “7505D, 7506D, and 7507D voice terminals” in Chapter 6.

A port is required on a TN556 ISDN BRI Line circuit pack for each ADM to be assigned. Due to multipoint support, a port may be shared with another voice-only or data-only endpoint. The TN556 ISDN BRI Line circuit pack provides 12 ports which support a maximum of 24 stations or data modules. In addition, the TN778 Packet Control circuit pack is also required.

Attendant Console

The attendant console is a digital call-handling position with pushbutton control used not only to answer incoming calls and place outgoing calls, but also to manage and monitor some of the System's operations.

A System can have as many as six consoles in operation at any time. A daytime console can double as a night console, or a seventh console can be provided. If a seventh console is provided, it must be classified as night-only and cannot operate when the other six operate.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Console Parameters	All	6-79
Attendant Console	All	6-32

- Console Parameters Form—Complete all fields as required. This provides the group parameters for all attendant consoles to be assigned in the System.
- Attendant Console Form—Complete all fields as required. This provides the unique parameters for each attendant console in the System. A completed form is required for each console to be assigned.

Hardware Requirements

Requires a port on a TN754B Digital Line circuit pack for each attendant console to be assigned. For reliability, the attendant consoles should not be assigned to ports on the same TN754B circuit pack. For example, if three attendant consoles are to be provided, assign each console to a port on three different TN754Bs, if possible. However, if required, all attendant consoles may be assigned to ports on the same TN754B circuit pack.

Attendant Control of Trunk Group Access

Allows the attendant to control trunk groups and prevents voice terminal users from directly accessing a controlled trunk group. Attendant consoles may be administered to control different trunk groups if required.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed depending on the console type.

Form	Field	Form Instructions (Page #)
Attendant Console	Feature Button Assignments -act-tr-grp -deact-tr-g -local-tgs -remote-tgs	6-32
Trunk Group Access APLT CO CPE DMI-BOS FX ISDN-PRI RLT Tandem Tie WATS	Busy Threshold	5-98 5-112 5-123 5-137 5-144 5-180 5-195 5-221 5-232 5-247 5-264

- Attendant Console Form—A Control Activate (act-tr-grp) and a Control Deactivate (deact-tr-g) button (one each) must be assigned to one of the 24 programmable feature buttons on the attendant console Feature Button Assignments field. Trunk groups to be controlled are assigned via Attendant Direct Trunk Group Selection. Trunk group select buttons (that is, local-tgs or remote-tgs) must be assigned for each of the trunk groups to be controlled.
- Trunk Group Form—Assign Busy Threshold field for trunks controlled by this feature.

Hardware Requirements

None.

Attendant Direct Extension Selection With Busy Lamp Field

Allows the attendant to place or extend calls to up to 2000 extension numbers assigned in the system by pressing a Group Select button and a Direct Extension Selection (DXS) button instead of dialing the extension number. Note that an associated DXS lamp for a VDN is always dark. The DXS button may be used to place a call to a VDN.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Hundreds Select Button Assignments (1-20)	6-32

- Attendant Console Form—Assign up to 20 buttons in the Hundreds Select Button Assignments field. If the selector console has just eight Hundred Group Select buttons, assign just the first 8 buttons on Page 1 of the form. If required, additional buttons can be assigned to Page 2 of the form.

Hardware Requirements

A Selector Console is required. The 24A Selector Console is equipped with eight Hundred Group Select buttons and the 26A Selector Console is equipped with 20 Hundred Group Select buttons.

Attendant Direct Trunk Group Selection

Allows the attendant direct access to an idle outgoing trunk by pressing the button assigned to the desired trunk group.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed depending on console type.

Form	Field	Form Instructions (Page #)
Attendant Console	DTGS Button Assignments (1 -12) -DTGS Buttons (local-tgs)	6-32

- Attendant Console Form—Assign up to 12 buttons in the Direct Trunk Group Buttons (Access Code) field and up to 12 additional buttons, if required, on Page 2 of the form. If trunk groups are to be controlled via the Attendant Control Of Direct Trunk Group Access feature, they should only be assigned the first six Direct Trunk Group Select (DTGS) Button Assignments (1 through 6) if using the Basic Attendant Console (301A1). Loudspeaker Paging zones may be assigned these buttons if required. In this case, the busy/idle lamp button indicates the busy/idle status of the associated paging zone.

This feature is closely related to the Attendant Control of Trunk Group Access and Trunk Group Busy/Warning Indicators to Attendant features. Refer to those features for additional information.

Hardware Requirements

None.

Attendant Display

Shows call-related information that helps the attendant to operate the console more efficiently. Also shows personal-service and message information. Information is shown on the alphanumeric display on the attendant console.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed depending on console type.

Form	Field	Form Instructions (Page #)
Attendant Console	Display Module Button Assignments (1-8)	6-32

- Attendant Console Form—Assign up to eight buttons in the Display Module Button Assignments fields.

Hardware Requirements

None.

Audio Information Exchange (AUDIX) Interface

Provides a communications link between the System and the Audio Information Exchange (AUDIX). AUDIX allows both System users and outside callers to write, edit, send, and forward voice messages to other users. In addition, System users can also receive and store incoming voice messages from others and transfer calls into AUDIX.

The following requires implementation:

- **AUDIX Interface to Switch—** The AUDIX analog connection to the System requires up to 16 (small AUDIX) or 32 (large AUDIX) 2500-type Voice Terminal forms to be completed to assign AUDIX voice ports. In addition, an associated data link from the System to AUDIX must be administered.
- **Call Transfer Into AUDIX—** A user who is an AUDIX subscriber or a covering user for a principal who is an AUDIX subscriber may transfer a call to AUDIX. This requires use of the Transfer Into AUDIX Feature Access Code or use of an abbreviated dialing button programmed with the access code.
- **Call Transfer Out of AUDIX—** Provides call progress feedback to the calling party in the form of call ringing and voiced messages if the called party is busy. In addition, a called party with a display-equipped terminal is informed of the call type (director redirected) and receives associated information about the call.

Note: Administration for Call Transfer Out of AUDIX must be performed on the AUDIX machine. AUDIX machine administration is not covered in this manual. Refer to the appropriate AUDIX manual for additional information.

- **AUDIX in DCS via BX.25 Data Channels—** An AUDIX connected to the System can support other switches (remote) in a DCS network. One AUDIX can be used to support all switches in a DCS network or can serve a group of switches in a DCS. The remote switch does not have a direct data link connection to AUDIX. It passes its data to the host switch via a BX.25 data link and associated processor channels. The AUDIX machine on the host switch has separately administered DCS hop channels to each of the remote switches that it is supporting (that is, either all or a group of switches). The host switch then provides the AUDIX connection. All AUDIX features can be activated from a host or remote switch. An AUDIX in DCS with connectivity via BX.25 data channels is referred to as “Traditional DCS AUDIX” later in this section.

The remote AUDIX hunt group can be a coverage point in a call coverage path at a remote switch not connected directly to AUDIX. The remote switch must be in the DCS network.

- **AUDIX in a DCS via ISDN-PRI D-Channel—** (May also be referred to as ISDN-PRI D-Channel DCS AUDIX feature.) This feature still uses BX.25 connectivity between the AUDIX and host switch. The ISDN-PRI connectivity is utilized between the host switch and remote switches in the DCS network. The feature requires the same hardware as the DCS Over ISDN-PRI D-Channel feature. In addition, an AUDIX R1V2 (or later release) is required.

AUDIX messages are transported via administered NCA-TSCs between nodes supporting the ISDN-PRI D-Channel DCS AUDIX feature. An administered NCA-TSC is a NCA-TSC that is established between two administered NCA-TSC endpoints on two different PBXs and will be up or enabled for a period of time depending on administered translations. The connection may be administered on a “as-needed” or “permanent” basis. (Refer to the DCS Over ISDN-PRI D-Channel feature coverage in this Chapter for additional information on NCA-TSCs and DCS over ISDN-PRI D-Channel.)

- **AUDIX as an ACD Split**— An AUDIX hunt group may be administered as an ACD split by setting the ACD field on the hunt group to “y.” This then allows AUDIX traffic to be measured via the ACD’s CMS. AUDIX requests for voice ports are recorded as logins and AUDIX requests to the switch to disable voice ports are recorded as logouts by the CMS.

This feature is for use by Systems currently equipped with an ACD and CMS. For those Systems not equipped with an ACD and CMS, AUDIX traffic measurements can be obtained using the System Measurements feature functionality.

- **AUDIX as a Listed Directory Number (LDN) Night Destination**— An AUDIX may be used to support LDN calls when the System is in the night service mode. The following steps are required to implement this service:
 1. Assign a night destination extension (must be an AUDIX subscriber extension) on the Listed Directory Numbers form (the extension can be assigned to a phantom analog station).
 2. Assign a coverage path to the station and assign the associated Call Coverage Paths form with the AUDIX hunt group as the first coverage point. Set the “All” coverage criteria field for outside calls on the form to “y” (yes).
 3. Activate the Call Forwarding All Calls feature for the night extension.

Note: Refer to the AUDIX feature description in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for additional AUDIX information.

The following provides references to associated forms that must be completed to administer either a small or large AUDIX. Typical figures and examples of completed forms, where necessary, are also shown. Information required to administer DCS tie trunks and data links is not given in this section. Refer to the DCS coverage for those instructions. The completed forms, where shown, are examples only. The actual data assigned on the forms will vary depending on System configuration and prior assignment of switch facilities.

The data link interface between the System and the AUDIX may be via either an MPDM or MTDM or by the Processor Interface jack located on the back of the Control Cabinet.

Administration—AUDIX Interface

To implement the AUDIX interface in a non-DCS configuration, the following form(s) or sections of the form(s) must be completed. Figure 4-1 shows an example interface using either an MPDM or an MTDM. Figure 4-2 shows a typical interface using the Processor Interface jack located on the back of the Control Cabinet. Screens 4-1 through 4-12 show typical completed forms for the two configurations.

Form	Field	Form Instructions (Page #)
Processor Interface Data Module	All (for one AUDIX link)	6-112
Interface Links	All (for one AUDIX link)	6-175
Processor Channel Assignment	All (for one AUDIX link)	6-194
Modular Processor Data Module or Modular Trunk Data Module	All	6-105
Station—2500 Form (up to 32 forms may be assigned depending on AUDIX size)	All (for AUDIX voice port)	6-260
Recorded Announcements	All	6-198
Feature Access Codes	Transfer Into AUDIX	6-127
Hunt Groups	All (as required)	6-160

Form	Field	Form Instructions (Page #)
Stations (User stations as required)	All, including: COS LWC Activation Data Restriction Redirect Notification Call Waiting Indication Coverage Path Button/Feature Button Assignments -call-fwd -goto-cover -lwc-store -send-calls	6-245
Class of Service	Call Fwd-All Calls	6-77
Call Coverage Paths	All	6-55

Note: AUDIX translations (not covered in this manual) and the System translations must be coordinated to ensure proper operation. It is recommended (but not required) that the Interface Channel number associated with each logical link match AUDIX port numbers on all forms. This helps in coordinating assignments and aids in troubleshooting.

- Processor Interface Data Module Form—Complete all fields as required. Assigns a link (interface channel) in the digital switch for the AUDIX interface. Eight links (01 through 06) are available for assignment in a multi-carrier cabinet System. A single-carrier cabinet has just four links (01 through 04).

If the Processor Interface jack (located on the back of the Control Cabinet) is to be used, Interface Link 1 (physical channel 01) must be assigned.

- Interface Links Form—Complete all fields on the form for one link, as required. Assign a link from the Processor Interface circuit pack for AUDIX.

Note: Note that when administering the Interface Links form using a change **communications-interface links** command, all fields may be initially entered except the Enable field. After completing and administering the Processor Channel assignment form, recall the Interface Links form using the **change** command and then enable the appropriate links by entering "y" in the Enable fields.

- Processor Channel Assignment Form—Complete the required fields on the form for the AUDIX interface.

The entry in the Remote Processor Channel field must agree with an associated AUDIX port field (translated on AUDIX). The entry in the Machine ID field must agree with the AUDIX field entry as translated on the AUDIX Data Link form (typically with just one AUDIX this entry is one).

If the Processor Interface jack (located on the back of the Control Cabinet) is to be used, Interface Link 1 (physical channel 01) must be assigned.

- Modular Processor Data Module (MPDM) or Modular Trunk Data Module Form—Complete all fields as required. Complete an MTDM form when connecting to a large AUDIX or complete an MPDM form when connecting to a small AUDIX.

Note: Instead of administering an MPDM or MTDM form, the AUDIX data link may be directly connected to the Processor Interface jack on the back of the Control Carrier (if not already in use) instead of via the MPDM or MTDM and a port on a Digital Line circuit pack. The Processor Interface jack utilizes Interface Link 01 which is administered using the Processor Interface Data Module form. It is advised not to use the Processor Interface jack in those Systems that have a duplicated control carrier. The connection is not designed so that it can be driven by either processing element in the duplicated System.

- Station Form (2500 Voice Terminal)—Complete up to 32 forms for a large AUDIX or up to 16 for a small AUDIX. This assigns AUDIX voice ports to the System. The associated extension numbers will then be administered in a hunt group as hunt group members. Assign COR field the same COR as the AUDIX hunt group COR. Assign the Name field on each form as “audix.”
- Recorded Announcements Form—Assign an announcement type to be associated with AUDIX, if required.
- Feature Access Codes Form—Enter the Transfer to AUDIX access code.
- Hunt Group Form—all fields including the following:
 - Enter the AUDIX extension number in the Group Extension field on page one of the form.
 - Enter “ucd” in the Group Type field.
 - Enter “audix” in the Group Name field.
 - Enter “audix” in the Message Center field.
 - Enter “y” in the ACD field if AUDIX is to be an ACD split; otherwise enter “n.”
 - Enter the destination (extension, attendant) where calls to the ACD split will go when in the Night Service mode.
 - Enter “y” in the Queue field.
 - Enter the number of users assigned as hunt group members in the Queue Length field. For example, if the hunt group has ten members, then 10 must be entered in the field. These members are used for AUDIX voice retrieval.

- Enter a recorded announcement extension and associated delay. The associated announcement will be provided to a user after being in a call waiting queue for the specified delay interval.
 - Enter “y” in the Measured by MIS field if AUDIX traffic measurements are to be provided by ACD CMS.
 - Assign up to 32 AUDIX voice ports as member numbers for a large AUDIX or 16 for a small AUDIX. Enter previously administered AUDIX voice port extensions (assigned using 2500 Station forms) in the Hunt Group Member Number Assignments Ext. fields.
- Station Forms (user stations)
 - Assign correct COS number so voice terminal can activate Call Forwarding All Calls feature.
 - Enter “y” in the LWC Activation field.
 - Enter “audix” in the LWC Reception field.
 - Enter “y” in the Redirection Notification field.
 - Enter “n” in the Data Restriction field.
 - Enter “n” in the Call Waiting Indication field.
 - Assign a coverage path number which has the AUDIX hunt group in a coverage point.
 - COS Form—Verify Call Forwarding All Calls feature is activated.
 - Call Coverage Paths Form—Assign a coverage path which includes the AUDIX hunt group number in a coverage point. It is recommended (but not required) that the AUDIX be the last point in a coverage path.

Administration—AUDIX in a DCS via BX.25 Data Channels

To implement the AUDIX interface via BX.25 Data Channels in a DCS configuration (traditional AUDIX in a DCS), the following form(s) or sections of the form(s) must be completed. Figure 4-3 shows an example of AUDIX in a DCS arrangement. Associated instructions and form entries unique to the DCS arrangement are shown. Other switch translations (hunt groups, stations, links, etc.) are assigned using the previous AUDIX Interface instructions. Also note that all instructions associated with implementing the DCS data links between switches and the associated DCS entries on Processor Channel Assignments forms, Interface Link forms, etc., are covered in the DCS section.

Form	Field	Form Instructions (Page #)
Dial Plan (all switches)	(as required)	6-117
Processor Channel Assignments (host and remote switch)	(as required)	6-194
Hop Channel Assignments (host switch)	(as required)	6-152
Hunt Groups (host and remote switches)	All	6-160
Call Coverage Paths (host and remote switches)	All	6-55

- Dial Plan Form—The dial plan must be a UDP and include the host switch AUDIX extension in the dial plan. One extension number should be assigned (on all switches) to access AUDIX.
- Processor Channel Assignments Form (remote switch)—Assign the link number and associated field entries including the host switch AUDIX Machine ID for the DCS AUDIX connection. (See Figure 4-3 and associated instructions.)
- Hop Channel Assignment Form (host switch)—Assign the Interface Link numbers and associated channel numbers to each remote switch. Enter the priority as “h” (high). (See Figure 4-3 and associated instructions.)
- Hunt Groups Form (remote switch)—Assign a remote AUDIX hunt group containing host switch AUDIX extension number. Complete all fields, including the following:
 - Message Center: Enter “rem-audix.”
 - AUDIX Extension: Enter host switch AUDIX extension number.
 - COR: Enter same COR as assigned on the host AUDIX hunt group.
- Call Coverage Paths Form (remote switch):—Enter the remote AUDIX hunt group number in the “Point 1:, 2:, or 3:” field. It is recommended but not required that the AUDIX be the last point on a call coverage path.

Administration—AUDIX In a DCS via ISDN-PRI D-Channel

Figure 4-4 shows an example of an AUDIX in a DCS Over ISDN-PRI D-Channel arrangement. Administration associated with the figure is provided.

To implement the AUDIX interface via ISDN-PRI D-Channel in a DCS configuration the following form(s) or sections of the form(s) must be completed. Other switch translations (hunt groups, stations, links, host switch connections to AUDIX, etc.) are assigned using the previous AUDIX Interface instructions. Also note that all instructions associated with implementing the DCS Over ISDN-PRI D-Channel are covered in the DCS Over ISDN-PRI D-Channel feature coverage provided elsewhere in this Chapter.

Form	Field	Form Instructions (Page #)
Dial Plan (all switches)	(as required)	6-117
AAR Analysis	All	5-40
Signaling Group	All	5-81
ISDN Trunk Group	Used For DCS DCS Signaling PBX ID	5-195
Routing Pattern	Trunk Group # FRL Del	5-29
ISDN TSC Gateway Channel Assignments	Sig Group	5-87
	Adm'd NCA TSC Index Processor Channel Application	5-89
Hunt Groups (host and remote switches)	All	6-160
Call Coverage Paths (host and remote switches)	All	6-55

- Dial Plan Form—The dial plan must be a UDP and include the host switch AUDIX extension in the dial plan. One extension number should be assigned (on all switches) to access AUDIX. All far-end switches RNxs, PBX IDs, etc. must be entered on the UDP section of the form.
- AAR Analysis Form—Complete the Dialed String, Min/Max, Route Pat, and Call Type entries required to communicate with each switch in the network.
- ISDN-PRI Trunk Group Form—With a Group Type of “isdn-pri,” insure that the Used for DCS field entry is “y,” the DCS Signaling field entry is “d-chan,” and the PBX ID field entry is completed to identify the remote PBX in the network that the switch will be communicating with.
- Routing Pattern Form—Enter the above ISDN-PRI trunk group in a routing pattern and complete associated FRL and Del fields.
- ISDN-PRI TSC Gateway Assignments Form—Complete the appropriate fields on the form if the switch is to act as a gateway between a switch that supports the ISDN-PRI D-Channel DCS AUDIX feature and a PBX administered as a traditional DCS AUDIX using BX.25 data channels for communication.
- Hunt Groups Form (remote switch)—Assign a remote AUDIX hunt group containing host switch AUDIX extension number. Complete all fields, including the following:
 - Message Center: Enter “rem-audix.”
 - AUDIX Extension: Enter host switch AUDIX extension number.
 - COR: Enter same COR as assigned on the host AUDIX hunt group.
- Call Coverage Paths Form (remote switch):—Enter the remote AUDIX hunt group number in the “Point 1:, 2:, or 3:” field. It is recommended but not required that the AUDIX be the last point on a call coverage path.

Hardware Requirements

The AUDIX data link interface to the System requires either one port on a TN754B Digital Line circuit pack and an MPDM/MTDM or may be connected directly to the System via the Processor Interface jack located on the back of the Control Cabinet. Up to 32 ports (large AUDIX) or 16 ports (small AUDIX) on a TN742, TN746B, or TN769 Analog Line circuit pack are required for AUDIX voice port assignments. Any combination of these analog packs can be used. In addition, for an AUDIX in a DCS configuration, DCS hardware is required as covered in the DCS implementation instructions.

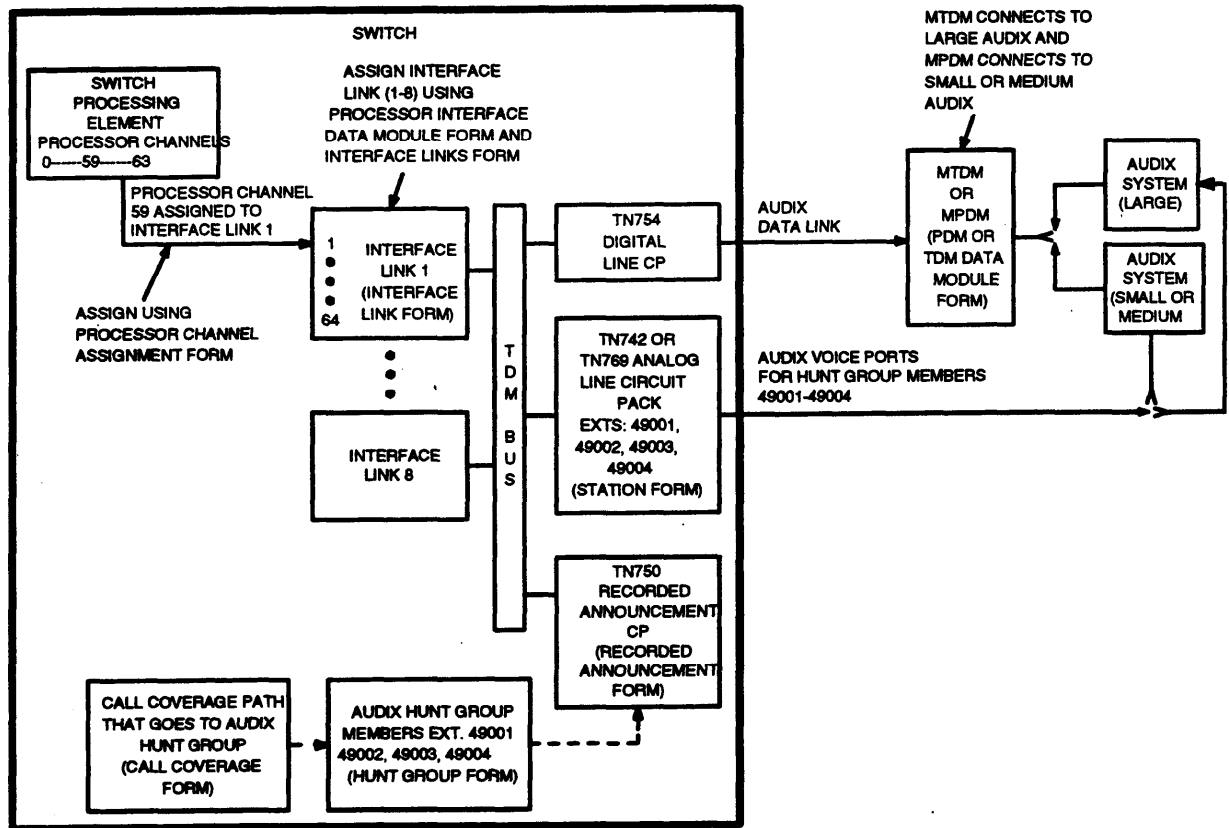


FIGURE 4-1. Typical AUDIX Connections Using an MPDM or MTDM Interface

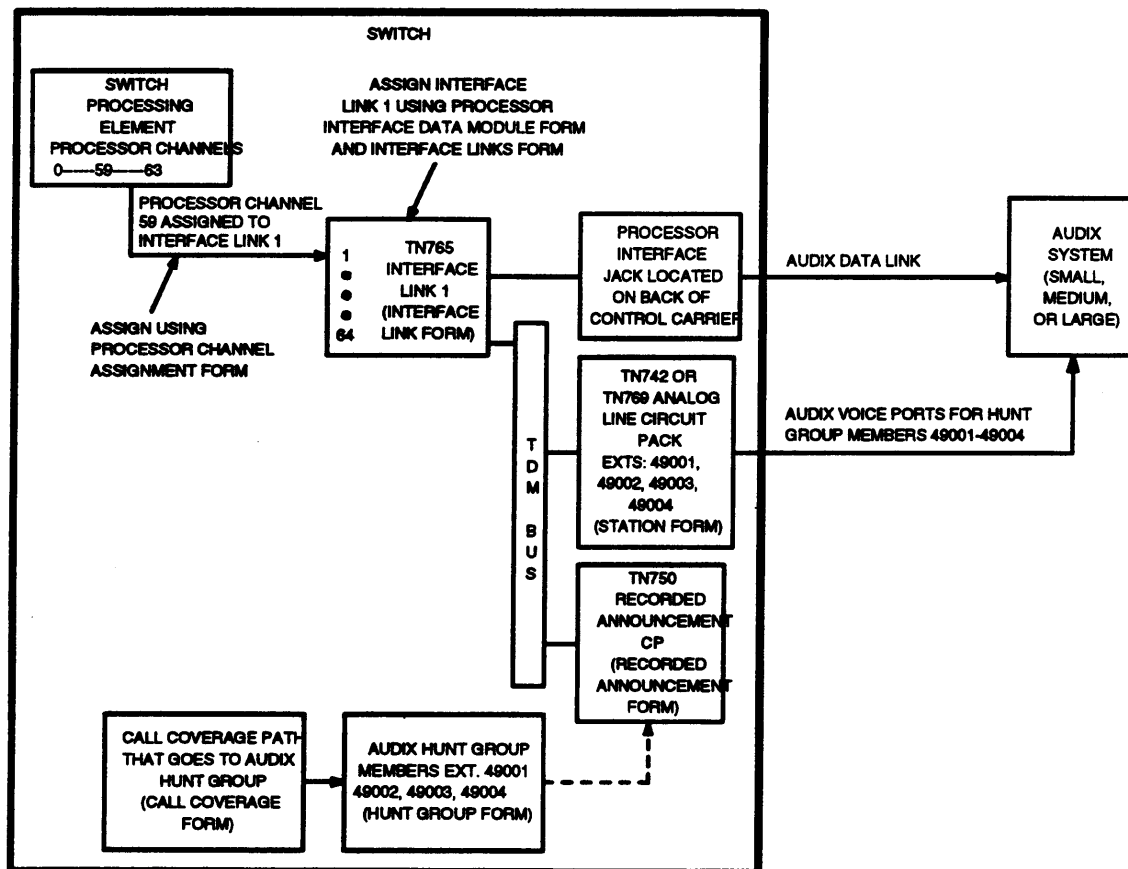


FIGURE 4-2. Typical AUDIX Connections Using the Control Cabinet Processor Interface Jack

Page 1 of 1

DATA MODULE

Data Extension: 48000 Type: pdm Physical Channel: 04

Name: AUDIX COS: 1 COR: 1

ABBREVIATED DIALING

List1: _____

**SCREEN 4-1. Typical MPDM/MTDM Module Form—
Used to Assign AUDIX Interface Link**

Page 1 of 1

DATA MODULE

Data Extension: 48000 Type: procr-inf Physical Channel: 01

Name: AUDIX COS: 1 COR: 1

ABBREVIATED DIALING

List1: _____

**SCREEN 4-2. Typical Processor Interface Data Module Forms—
Used to Assign AUDIX Interface Link**

Page 1 of 1

INTERFACE LINKS

Link	Enable	Est Conn	PI Ext	Prot	Destination Digits	Brd	DTE/ DCE	Identification
1:	n	—	—	B X . 2 5	—	—	<u>DTE</u>	_____
2:	n	—	—	B X . 2 5	—	—	<u>DTE</u>	_____
3:	n	—	—	B X . 2 5	—	—	<u>DTE</u>	_____
4:	<u>Y</u>	<u>Y</u>	<u>48000</u>	<u>BX.25</u>	<u>49005</u>	—	<u>DTE</u>	<u>AUDIX LINK</u>

**SCREEN 4-3. Typical Interface Links Form Used With MPDM Connection
(MPDM assigned Ext. 49005)**

Page 1 of 1

INTERFACE LINKS

Link	Enable	Est Conn	PI Ext	Prot	Destination Digits	Brd	DTE/ DCE	Identification
1:	<u>Y</u>	<u>Y</u>	<u>48000</u>	<u>BX.25</u>	<u>eia</u>	—	<u>DTE</u>	<u>AUDIX LINK</u>
2:	<u>n</u>	—	—	<u>BX.25</u>	—	—	<u>DTE</u>	_____
3:	<u>n</u>	—	—	<u>BX.25</u>	—	—	<u>DTE</u>	_____
4:	<u>n</u>			<u>BX.25</u>	—	—	<u>DTE</u>	_____

**SCREEN 4-4. Typical Interface Links Form Used With Processor
Interface Jack Connection**

Page 1 of 1

DATA MODULE

Data Extension: 49005 TYPE: pdm Port: C0508

Name: AUDIX-PDM COS: 1 COR : 1

Connected to: dte Remote Loop-Around Test: n

ABBREVIATED DIALING

Listl: _____

**SCREEN 4-5. Typical Modular Processor Data Module Form—
Used to Assign an MPDM Interface Connection**

Page 4 of 4

PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Appl.	Interface Link Chan	Priority	Remote Proc Chan	Machine-ID
49:	_____	—	_____	—	—
50:	_____	—	_____	—	—
		.			
		.			
		.			
		.			
		.			
59:	<u>A U D I X</u>	<u>4 0 1</u>	<u>h</u>	<u>1</u>	<u>1</u>
60:	_____	—	_____	—	—

**SCREEN 4-6. Typical Processor Channel Assignment Form—
Used to Assign Processor Channel 59 To Audix**

Page 4 of 4

PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Appl.	Interface Link Chan	Priority	Remote Proc Chan	Machine-ID
49:	_____	—	_____	—	—
50:	_____	—	_____	—	—
		.			
		.			
		.			
		.			
		.			
59:	<u>AUDIX</u>	<u>1</u> <u>01</u>	<u>h</u>	<u>1</u>	<u>1</u>

SCREEN 4-7. Typical Processor Channel Assignment Form—Used to Assign Processor Channel 59 to AUDIX When Using the Processor Interface Jack Connection

Page 1 of 1

STATION

Extension: 49001

Type: 2500 Lock Messages: n COR: 1

Port: D1501 Security Code: _____ COS: 1

Name: AUDIX Coverage Path: _ Tests? n

FEATURE OPTIONS

LWC Reception? audix Coverage Message Retrieval? y

LWC Activation? y Auto Answer? n

Redirect Notification? n Data Restriction? y

Call Waiting Indication? n

SCREEN 4-8. Typical 2500 Voice Terminal Form—Used to Assign AUDIX Voice Port Extension 49001

Page 1 of 6

HUNT GROUP

Group Number: 4 Group Extension: 48123 Group Type: ucd
 Group Name: AUDIX Coverage Path: COR: 1
 Security Code: Message Center: audix ACD? y
 Queue? y Night Service Destination: Vector? n
 ISDN Caller Disp:
 Measured? y Supervisor Extension:
 Priority On Intraflow? n Inflow Threshold:
 Controlling Adjunct? none
 Queue Length: 4
 Calls Warning Threshold: Calls Warning Port:
 Time Warning Threshold: Time Warning Port:
 First Ann. Extension: 48999 First Announcement Delay (sec): 2
 Second Announcement Extension: Second Announcement Delay (see):
 Second Announcement Recurring: n
 Forced Entry of Stroke Count or Call Work Code? n

SCREEN 4-9. Typical Hunt Group Form—Used to Assign AUDIX Hunt Group and Associated AUDIX Voice ports

Page 2 of 6

HUNT GROUP

Group Number: 4 Group Extension: 48123 Group Type: ucd

Group Member Assignments

	Ext	Name	Ext	Name
1:	<u>49001</u>	<u>Audix-M Port 1</u>		
2:	<u>49002</u>	<u>Audix-M Port 2</u>		
3:	<u>49003</u>	<u>Audix-M Port 3</u>		
4:	<u>49004</u>	<u>Audix-M Port 4</u>		

SCREEN 4-10. Typical Hunt Group Form—Used to Assign AUDIX Hunt Group and Associated AUDIX Voice Ports (Contd)

Page 1 of 1

COVERAGE PATH

Coverage Path Number: 1
Next Path Number: Linkage:

COVERAGE CRITERIA

Station/Group	Status	Inside Call	Outside Call	
	Active?	<u>n</u>	<u>n</u>	
	Busy?	<u>y</u>	<u>y</u>	
	Don't Answer?	<u>y</u>	<u>y</u>	Number of Rings: <u>3</u>
	All?	<u>n</u>	<u>n</u>	
	SAC/Go to Cover?	<u>y</u>	<u>y</u>	

COVERAGE POINTS

Point1: 48345 Point3: 48123
Point2: 48350

SCREEN 4-11. Typical Call Coverage Paths Form (AUDIX Assigned to Coverage Point 3)

Page 1 of 4

ANNOUNCEMENTS

Ext.	Type	COR	Name	Queue	
1	_____;	_____	_____	_____	
2:	<u>48999</u> <u>integrated</u>	<u>1</u>	AUDIX_ANN	n	Protect? <u>y</u> Board: <u>C02</u>
3	_____;	_____	_____	_____	
4	_____;	_____	_____	_____	

SCREEN 4-12. Typical Recorded Announcements Form—Used to Assign an AUDIX Announcement

Figure 4-3 shows an AUDIX in a DCS Network arrangement consisting of three switches. Associated Hop Channel and Processor Channel Assignments forms for each switch is provided in addition to related AUDIX translations. The AUDIX translations are not part of the System translations but are presented here for a better understanding of the System.

Translation assignments on AUDIX and each switch must be coordinated to ensure proper operation. It is recommended that Interface Channel numbers associated with each logical link match AUDIX port numbers on all forms. This helps in coordinating assignments and aids in troubleshooting. The following guidelines must be observed when making assignments:

Processor Channel Assignments Form

1. The entry in the Remote Processor **Channel** field must agree with associated AUDIX port fields (on AUDIX).

For example, as shown on Figure 4-3, the association of each switch to an AUDIX port is shown on the AUDIX Translations form where Switches 2, 9, and 10 are associated with AUDIX ports 3, 2, and 1, respectively. Also note that the interface to each switches processor is via Switch Port (that is, Processor Channel) 59. As a result of this association, the Remote Processor **Channel** entries on switches 2, 9, and 10 Processor Channel Assignments forms for Processor Channel 59, as shown, are 3, 2, and 1, respectively.

2. Machine IDs entered on the form must agree with the AUDIX field entry on the AUDIX Data Link form (on AUDIX—form not shown). Typically, with just one AUDIX, this entry is "1."

Hop Channel Assignments Form

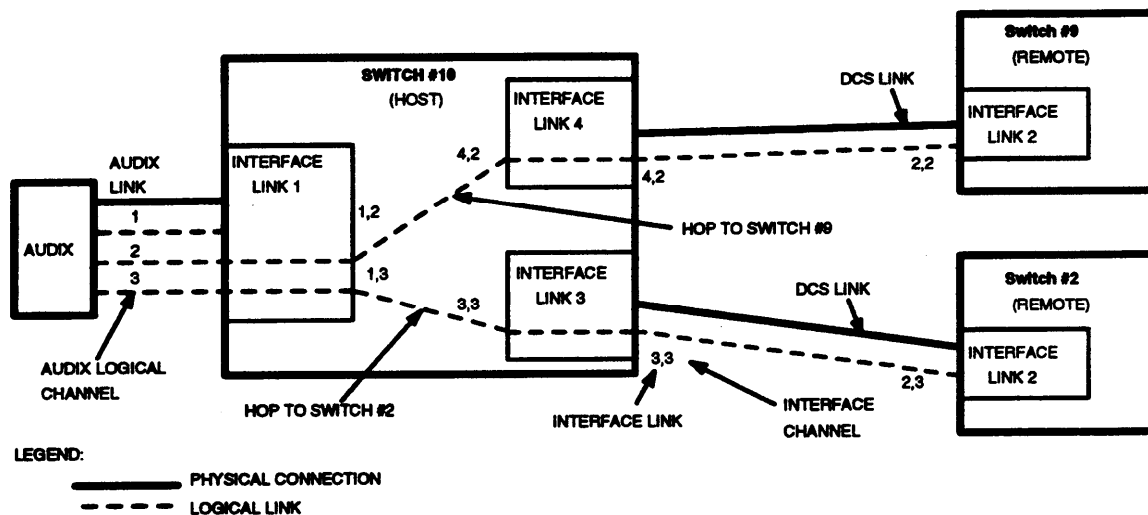
Interface Link **Channel** entries used to show the host switch interface to AUDIX must agree with related AUDIX logical channels (on AUDIX).

For example, as shown on Figure 4-3, Interface Link 1, Channel 2 (1, 2) is shown logically connected to AUDIX logical channel 2. This then becomes part of the first line entry on the Hop Channel Assignments form as shown. A similar situation is shown for Interface Link 1, Channel 3 (1, 3) which is entered on the second line of the form. The remaining entries on the Hop Channel Assignments form complete the hop connection to Switch #9 and Switch #2.

Hop Channel and Processor Channel Assignments Forms

Interface Link **Channel** assignments between switches must agree.

For example, as shown on Figure 4-3, Interface Channel 2 is shown associated with the logical link from Switch #10 to Switch #9. Channel 2 is then entered on Switch #10's Hop Channel Assignments form and on Switch #9's Processor Channel Assignments form. A similar situation is shown for Interface Channel 3 to Switch #2.

**AUDIX TRANSLATIONS**

(Not Part of System 75 Translations)

Switch #	Audix Port	Switch port	Logical Channel	Data Link
2	3	59	3	1
9	2	59	2	1
10	1	59	1	1

SWITCH #10 TRANSLATIONS

Processor Channel Assignments Form

Proc Chan	Interface Link	Chan	Priority	Remote Proc Chan	Appl.	MACHINE ID
59:	<u>1</u>	<u>1</u>	<u>h</u>	<u>1</u>	<u>audix</u>	<u>1</u>

Hop Channel Assignments Form

Link/Chan	Link/Chan	Priority	
<u>1</u>	<u>2</u>	<u>h</u>	(Must Agree With Far-End Switch's Interface Channel Number)
<u>1</u>	<u>3</u>	<u>h</u>	(Hop to Switch #9)
	<u>3</u>	<u>h</u>	(Hop To Switch #2)
			(Must Agree With Associated Audix Logical Channel Numbers)

SWITCH #9 TRANSLATIONS

Processor Channel Assignments Form

Proc Chan	Interface Link	Chan	Priority	Remote Proc Chan	Appl.	MACHINE ID
59:	<u>2</u>	<u>2</u>	<u>h</u>	<u>2</u>	<u>audix</u>	<u>1</u>

SWITCH #2 TRANSLATIONS

Processor Channel Assignments Form

Proc Chan	Interface Link	Chan	Priority	Remote Proc Chan	Appl.	MACHINE ID
59:	<u>2</u>	<u>3</u>	<u>h</u>	<u>3</u>	<u>audix</u>	<u>1</u>

FIGURE 4-3. Typical AUDIX in a DCS Network via BX.25—Hop Channel and Processor Channel Assignments

Figure 4-4 is an example of the ISDN-PRI D-Channel DCS AUDIX configuration in a D-Channel DCS network with two switches (PBX A and PBX B). The administration for this configuration is provided following the figure.

PBX A is the Host Switch, and AUDIX messages between the AUDIX and PBX A is transported via BX.25 (link 1, channel 1). This connectivity is the same as the one in the traditional DCS AUDIX configuration. The ISDN AUDIX Gateway (link 1, channel 2 / TSC signaling group five, index two) is used in the Host Switch to pass AUDIX messages between the AUDIX and PBX B.

In PBX B, the Remote Switch, AUDIX messages are transported via an administered NCA-TSC (TSC signaling group four, index two).

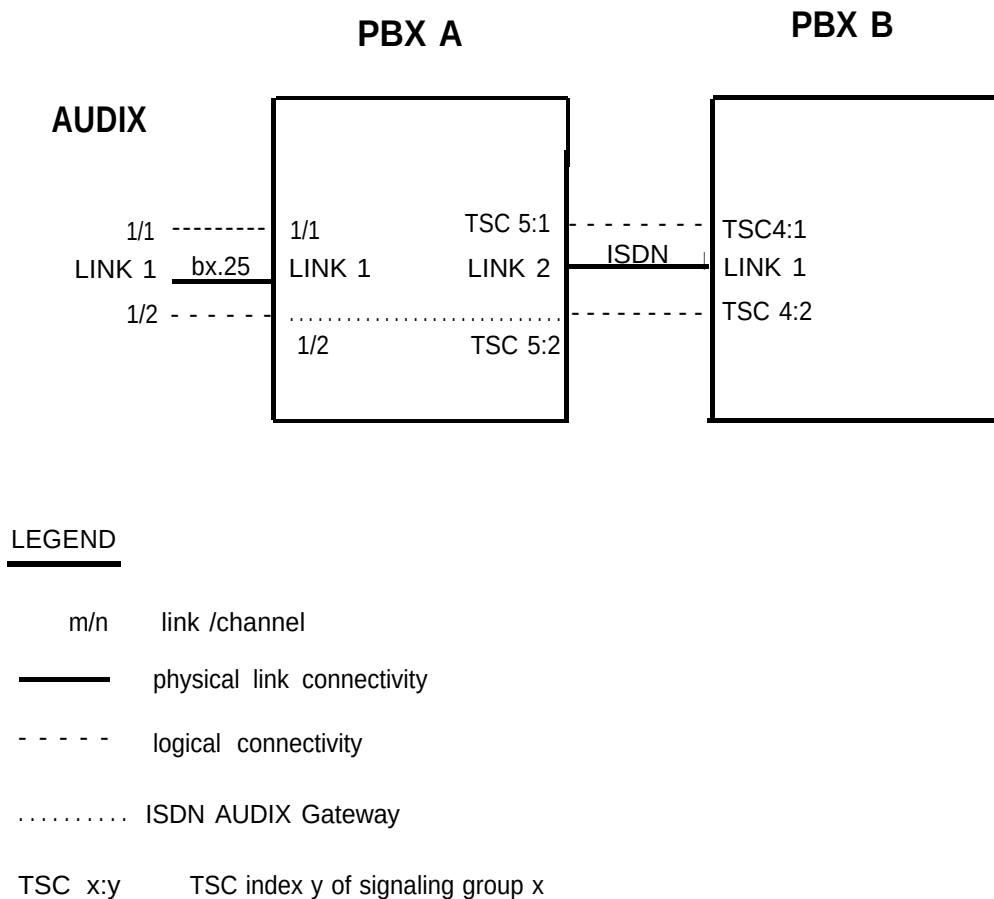


FIGURE 4-4. ISDN-PRI D-Channel DCS AUDIX Messaging

Administration associated with Figure 4-4 is as follows:

1. For AUDIX (not part of switch translations):

AUDIX Translations				
Switch Number	AUDIX port	Switch Port *	Logical Channel	Data Link
1	1	59	1	1
2	2	60	2	1

* Switch Port refers to the processor channel that is used for AUDIX in the PBX.

2. For PBX A (PBX ID 1):

Dialplan Form						
First Page			Second Page			
Start Dig.	Len	Usage	CODE	Local	RNX	PBX ID.
4	4	ext	4	y	221	1
5	4	ext	5	n	222	2

AAR Analysis Table			
Dialed String	Min/Max	Route Pattern	Call Type
22	7/7	1	haar
22	7/7	2	aar

Signaling Group Form (signaling group 5 page 2)						
TSC Index	Local Ext.	Enabled	Establish	Dest. Ext.	Far-end Machine-ID	Appl.
1	4900	y	near-end	5900	2	dcs
2	4901	y	near-end	5901	-	gateway

Trunk Group Form				
Group #	Grp Type	Used for DCS?	DCS Signaling	PBX ID
3	isdn-pri	y	d-chan	2

Routing Pattern Form			
Routing Pattern #	Trunk Group #	FRL	Del
1	3	0	3

Gateway Channel Form			
Signaling Group	TSC Index	Processor Channel	Application
5	2	60	audix

Processor Channel Form					
Proc. Channel	Application	Inter. Link	Channel	Remote Proc. Channel	Machine ID
59	audix	1	1	1	1
60	gateway	1	2	2	.

3. For PBX B (PBX ID 2):

Dialplan Form						
First Page			Second Page			
Start Dig.	Len	Usage	CODE	Local	RNX	PBX ID.
4	4	ext	4	n	221	1
5	4	ext	5	y	222	2

AAR Analysis Table			
Dialed String	Min/Max	Route Pattern	Call Type
22	7/7	2	aar
22	7/7	1	haar

Signaling Group Form (signaling group 4 page 2)						
TSC Index	Local Ext.	Enabled	Establish	Dest. Ext.	Far-end Machine-ID	Appl.
1	5900	y	far-end	4900	1	dcs
2	5901	y	far-end	4901	1	audix

Trunk Group Form				
Group #	Grp Type	Used for DCS?	DCS Signaling	PBX ID
2	isdn-pri	y	d-chan	1

Routing Pattern Form			
Routing Pattern #	Trunk Group #	FRL	Del
1	2	0	3

Authorization Codes

Provides the means for extending control of the System users calling privileges.

On an internally dialed outgoing call, the COR assigned the facility (for example, station) being used to originate the call and its PGN, when assigned, is used to select a routing pattern. At this point in the call, a 4-to 7-digit authorization code may be required to override the COR's FRL assignment. This then allows users to override the FRL and users within a PGN to have access to up to 7 FRL's when assigned and still remain partitioned. On a remote access incoming call, the authorization code may be required as part of the initial dialing sequence, and in this case, the authorization code selects the COR and associated PGN (when assigned) to be used in routing the call.

Administration

The Authorization Codes option must be enabled on the System-Parameters Customer-Options form before the associated forms and fields on forms can be administered. Note that the use of authorization codes with dialed VDN extensions is not allowed and will be blocked.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Authorization Codes	AC, COR	6-51
Feature-Related System Parameters	Authorization Code Enabled Authorization Code Length Authorization Code Cancellation Symbol Attendant Time Out Flag	6-133
Station	COR	6-245
Class of Restriction	FRL	6-72
Routing Patterns	Trunk Group Number FRL	5-29
Remote Access	Authorization Code Remote Access Dial Tone	6-203

Form	Field	Form Instructions (Page #)
Trunk Groups: Access APLT CO FX ISDN-PRI Tie WATS	Auth Code	5-98 5-112 5-123 5-180 5-195 5-247 5-264

- **Authorization Codes Form**—Assign 4- to 7-digit authorization codes (with CORs 0 through 63).
 - In the authorization code field, enter the 4- to 7-digit authorization code the user must dial. The number of digits entered must agree with the number assigned to the Authorization Code Length field on the Feature-Related System Parameters form.
 - In the COR field, enter the desired COR number from 0 through 63. This is the replacement COR to be used to modify the user's calling privileges and is effective after the corresponding authorization code has been dialed.
- **Feature-Related System Parameters Form**—Verify “y” is entered in the Authorization Code Enabled field so that Authorization Codes can be assigned on a System wide basis.
 - In the Authorization Code Length field, enter a number from 4 through 7 that defines the number of digits (length) in the authorization code. This is the number of digits that must be assigned to the authorization code on the Authorization Codes form.
 - In the Authorization Code Cancellation Symbol field, enter the type of symbol the caller must enter to cancel the 10-second delay before entering the authorization code.
 - In the Attendant Time Out Flag field, define if the caller will be routed to the attendant should the caller not dial an authorization code within 10 seconds or dials an invalid authorization code.
- **Station Form**—Assign CORs so a separate COR exists for users with different restrictions. If CORs are already established, they must be taken into account when adding/assigning new CORs.
- **COR Form**—In FRL field, assign originating Facility Restriction Levels for restricted and unrestricted users. The originating FRL can be a value of 0 through 7 where 0 is the most restrictive.
- **Routing Patterns Form**

- In the Group Number field, enter the desired trunk group number one through 99.
- In the FRL field, assign route FRLs for each trunk group in the Route Pattern. A route FRL of 7 is the most restrictive (that is, only users with an FRL of 7 can use the trunk group) and a route FRL of 0 (that is, users with FRLs from 0 to 7 can use the trunk group) is the least restrictive. (Note that trunk groups must have been assigned previously on the Trunk Group form.) The first choice trunk group has the lowest FRL, the second choice trunk group (if there is one) has the next lowest FRL, etc. The assigned FRL will be used for this pattern only. Trunk group FRLs are changeable from pattern to pattern. The FRL assigned to the trunk group when the COR is defined is not used on ARS calls.
- Remote Access
 - In the Authorization Code Required field, enter “y” if an Authorization Code must be dialed to access the System features remotely; otherwise, enter “n.”
 - In the Remote Access Dial Tone field, enter “y” if the user will receive a recall dial tone before dialing the authorization code. If Barrier Codes are assigned, the recall dial tone is heard after the Barrier Code has been dialed.
- Trunk Group Forms—In the Authorization Code field, enter a “y” if an Authorization Code must be dialed on incoming calls to access the trunks in this trunk group (that is, Auth Code field is used for incoming calls); otherwise, enter “n.”

Authorization Code Examples

The following provides three examples of typical Authorization Codes assignments.

Example 1.

Establish a group of users who must dial an authorization code in order to make outside calls. The client has ARS and the Authorization Codes feature. The forms and fields are administered as follows:

- Feature-Related System Parameters Form
 - Authorization Codes Enabled y
 - Authorization Code Length 7
 - Authorization Code Cancellation Symbol 1
 - Attendant Timeout Flag n
- Voice Terminal Forms—Assign COR = 1 for all unrestricted users and COR = 49 for restricted users who must dial an authorization code to make outside calls.
- Authorization-Codes Form—Assign the restricted users a replacement COR = 1 and an authorization code the same as their 7-digit phone number.
- COR Form—Assign/change originating FRLS for restricted and unrestricted users. Assign an originating FRL of 7 to users with a COR of one and an originating FRL of 0 (zero) to users with a COR of 49.

- **Routing Patterns Form**—For route pattern one, assign trunk group 40 (CO) as the first choice route with a route FRL = 1, NPA = 201, and Prefix Mark = 1 (that is, dialing "1" is required here to indicate a toll call). Assign first, second, and third choice routes as follows:

Grp No	FRL	NPA	Prefix Mark	Toll List	No. Del Digits	Inserted Digits
40	1	201	1			
2	3	201	1			
32	3	201	1			9

For this example, trunk group 40 is a CO trunk, trunk group two is WATS, and trunk group 32 is a tie trunk to the System 85.

When a caller dials the ARS access code to call out, the FRL of the originating facility is compared with the FRL of the available outgoing facility. If the FRL of the originating facility is less than the FRL of the trunk group, the restricted user will be prompted (via recall dial tone) to enter an authorization code. After the authorization code is entered, the call is routed to the CO for completion. If the FRL is insufficient to seize any trunk group in the route pattern, the user gets intercept tone.

Restricted callers will be prompted for and be required to enter an authorization code (as previously described). Unrestricted users will simply dial the ARS code followed by the desired number.

Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for additional information on the use of AAR/ARS FRLs for control of call routing.

Example 2.

Set up remote access to the switch such that the remote user must enter a barrier code and an authorization code to access the System features from home. The forms and fields on forms are assigned as follows:

- **Remote Access Form**

- Remote Access Extension	7XXXX
- Barrier Code Length	4
- Authorization Code Required	y
- Remote Access Dial Tone	y
- Barrier Code	4444
- COR	1
- COS	1

- **Remote Access using the DID Feature**—To use remote access through the DID feature, dial the 7- to 10-digit Remote Access number (957-XXX) followed by the barrier code (4444). After you hear recall dial tone, enter the authorization code, for example, the 7-digit station extension number (957-ZZZZ), followed by the desired number, or dial the ARS access code (9) and the 7- or 10-digit number you are calling. The call will be routed through to completion.

- Remote Access using a dedicated CO, FX, or WATS Trunk—To implement the remote access feature via a dedicated CO, FX, or WATS trunk, the Remote Access form is administered as above. In addition, the Incoming Destination field is assigned the Remote Access Extension number on the Trunk Group form.

When the caller dials the Listed Directory Number associated with the trunk group dedicated to Remote Access, the trunk group routes the call to the Remote Access Extension. The caller will hear a data tone followed by dial tone. The barrier code is then entered and, in this example, since Remote Access Dial Tone is set to "1," the caller will be prompted (via recall dial tone) to enter an authorization code. After the authorization code is entered, the caller will hear System dial tone. At this point, the desired number can be dialed and routed to completion.

Example 3.

On a System that does not use AAR or ARS for call routing, implement the Authorization Codes feature to allow a caller to override the originating COR assigned to a specific CO trunk group. On the trunk group form, enter "y" in the Authorization Code field if an authorization code must be dialed to access the trunks in this trunk group. This is in addition to administering the parameters on the Feature-Related System Parameters form, the Station form, the Authorization Codes form, and the COR form as specified in the example provided.

Hardware Requirements

None.

Automatic Alternate Routing

Provides alternate routing choices for private on-network calls. Also provides digit modification to allow on-network calls to route through the public network when on-network routes are not available.

Administration

The Private Networking option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Dial Plan	All	6-117
Class of Restriction	FRL Partitioned Group Number Time of Day Plan Number	6-72
Feature Access Codes	AAR Access Code	6-127
Toll Analysis	Dialed String Max/Min RCL UCL (1-10) Toll List	6-216
AAR Analysis	All	5-40
AAR Digit Conversion	All	5-44
Routing Patterns	All	5-29
Remote Home Number	All	
Plan Area		5-24
Time of Day Routing (optional)	All	5-34
Feature-Related System Parameters	AAR/ARS Dial Tone Required	6-133

- Dial Plan Form—Enter local area code. Complete digit identification and numbering.
- Class of Restriction Form—Assign FRLs for station CORs. The minimum FRLs required to access a route are assigned as part of the Routing Pattern form. Assignment of these values determines the calling privileges associated with calls placed from stations assigned the COR.

If required, assign an appropriate Partitioned Group Number (1 through 8) or a Time of Day Routing Plan Number (1 through 8) if the respective field is displayed on the form.

- Feature Access Codes Form—Assign “AAR Access Code.”

- Toll Analysis—Complete the Dialed String, Min/Max, Toll List, RCL, and UCL fields to control outgoing call access. This is only required if an AAR call crosses over to become an ARS call via the Call Type field entry on the AAR Analysis form being administered as “ars” or by entries on the AAR Digit Conversion form.
- AAR Analysis Form—Complete all fields as required. The form allows for the mapping of customer dialed numbers to routing patterns. This form replaces the RNX Translation Table from the previous release of the System.
- AAR Digit Conversion Form—Complete all fields as required. The form is used to convert private network numbers or to change the dialed digits to a public network number. The form may also be used to block or intercept certain private network calls to the attendant group.
- Remote Number Plan Area Form—Complete all fields as required. The form is used for 3-digit translations in the range 000 through 999. The form is typically used for mapping CO codes to routing pattern numbers.
- Routing Patterns Form—Complete all fields as required. In addition to normal trunking data, this form provides subnetwork trunking information which extends a call through a chain of subtending switches (see Subnet Trunking).
- Time of Day (TOD) Routing—Assign up to eight TOD charts. Each chart can have up to eight routing plans administered, each scheduled to change (based on the time of day entered on the form) up to six times a day for each of the 7 days in a week. This is an optional form. The Private Networking, ARS Partitioning, and TOD Routing must be enabled on the System-Parameters Customer-Options form before this form can be implemented.
- Feature-Related System Parameters Form—Complete the AAR/ARS Dial Tone Required field. Enter “y” if second dial tone is required after the feature access code; otherwise enter “n.”

AAR Guidelines and Examples

The examples that follow are designed to illustrate some of the practical aspects of AAR. These are, however, only examples. In reality, each System must be administered to meet its individual needs.

Completing the Class of Restriction Form

Make assignments as required for the following field:

- **FRL**— Assign a FRL (0 through 7) for each voice terminal user activating AAR. An FRL of 0 (zero) is the most restrictive and an FRL of 7 is the least restrictive. The FRL of the calling facility is compared against the FRL of the AAR pattern choices to select an allowed route.
- **Partitioned Group Number**— Only displayed if the ARS Partitioning option is enabled on the System-Parameters Customer-Options form and the TOD Routing option is not enabled. Enter an appropriate PGN (1 through 8).
- **Time of Day Plan Number**— Only displayed if the TOD Routing option is enabled on the System-Parameters Customer-Options form. Enter an appropriate TOD Routing Plan Number (1 through 8).

Completing the Feature Access Codes Form

Make assignments as required for the following field:

- Auto Alternate Routing (AAR) Access Code—Assign an access code to AAR. The usual entry is “8.”

Completing the AAR Analysis Form

Complete one to eight AAR Analysis Tables. Each table is associated with a different Partitioned Group Number. Complete the Dialed String, and associated Minimum and Maximum, Route Pat (Routing Pattern) and Call Type fields for each dialed string to be given specific routing consideration.

Complete the AAR Digit Conversion Form

Complete the Matching Pattern and associated Replacement String fields for each dialed string (matching pattern) to be modified (either in part or whole) to an alternative address. Calls will be routed based on the modified address.

Completing the Routing Pattern Form

Make assignments as required for the following fields:

- **Pattern Number**— Enter a Pattern Number 1 through 254.
- **Grp No.**— Enter the desired trunk group number 1 through 99.
- **FRL**— Enter the Facility Restriction Level 0 through 7 (0 being the least restrictive and 7 being the most restrictive) for this trunk group as it will be used by this pattern only. Trunk group FRLs are changeable from pattern to pattern. The FRL assigned to the trunk group when the COR is defined is not used on AAR calls. The NPA, Prefix Mark, and Toll Table fields listed below are used by ARS and not AAR.
- **NPA**— Enter the NPA of the distant end.
- **Prefix Mark**— Enter a number 0 through four as indicated. This determines the outputting of the Prefix digit 1.
 - 0 —indicates that the Prefix digit 1 is never outputted for 10-digit FNPA calls. A user-dialed 1 is outputted for 7-digit HNPA calls.
 - 1 —indicates that the Prefix digit 1 is outputted if and **only if** the call is a 10-digit call. Prefix Mark 1 should be selected for those HNPAs that require users to dial 1 to indicate a toll call.
 - 2 —indicates that the Prefix digit 1 is outputted for **all** toll calls, 7- and 10-digit, whether the user dials it or not.
 - 3 —indicates that the Prefix digit 1 is outputted for **all** toll calls. Toll calls are always outputted as 10-digit numbers, even those within the HNPA.

Note: Prefix Marks 2 and 3 must refer to a Toll Table (see Toll List below).

- **BCC**— required by the GRS feature. Only administrable if the ISDN-PRI option is enabled on the System Parameters Customer Options form. Enter a value in the range 0 through 4.
- **ITC**— required by the GRS feature for data calls. Only administrable if the ISDN-PRI option is enabled on the System Parameters Customer Options form. Allowed values are “rest” (restricted), “unre” (unrestricted), or “both.”
- **Toll List**— Enter a number, 1 through 32, that references the ARS Toll Table assigned to this trunk group. This field must be completed if the Prefix Mark is 2 or 3.
- **No. Del. Digits**— Enter the total number of digits (0 through 11) to be deleted from the dialed number when this trunk group is selected for use within this pattern.
- **Inserted Digits**— Enter the actual digits to be inserted, 0 through 36. The digits may be divided into groups separated by a wait (~w) for dial tone separator. “Wait” takes two digit places.

Completing the Remote Home Number Plan Area (RHNP) Form

This form is used for the analysis of the last three digits in a dialed string. References from a Dialed String entry on the AAR Analysis Table (in the “Route Pat” field) must be in the form “r1” through “r-32.” This reference points to 1 of the 32 RHNP Table forms available. Select the proper RHNP Table form(s) and make assignments as required for the following fields:

- **RHNP Table**— Enter the applicable Table Number (1 through 32).
- **Code**— Enter the significant digit (0 through 9) to identify the hundreds block of codes to be administered on the form.
- **Pattern Choice Assignment**— Enter the routing pattern number (1 through 254) in each appropriate field stating with 1:. Up to 12 different pattern choices may be assigned.
- **Code-Pattern Choice Assignments**— Enter a routing pattern number (one through 12) from the above list beside each appropriate code that is required to provide additional 3-digit translations to that provided on the AAR Analysis form. These codes are the least two significant digits of the hundreds block of codes represented on the Remote Home Numbering Plan Area (RHNP) form.

Hardware Requirements

Requires the use of tie trunk facilities if not already assigned.

Automatic Call Distribution

Provides automatic connection of incoming calls to specific splits (hunt groups). Calls to a specific split are automatically distributed among the agents (hunt group members) assigned to that split. Automatic Call Distribution (ACD) data, transmitted from the switch to the CMS, is used to generate various reports on the status of ACD agents, splits, and trunks.

The ACD option on the System-Parameters Customer-Options form must be enabled before associated forms or fields on forms can be administered.

ACD is implemented using the features or functions listed below. These features can be used singularly or in combination with each other. The features are listed alphabetically below and associated administration instructions are provided with each feature's coverage (this chapter).

- Abandoned Call Search
- Agent Call Handling
 - Call Work Codes
 - Stroke Counts
 - Forced Entry of Stroke Counts
 - ASAI (for adjunct-based ICM and other applications)
- Attendant Console
- Call Management System
- Call Vectoring
- Central Office Trunk Group
- Class of Restriction
- Foreign Exchange Trunk Group
- Hunting
- Intraflow and Interflow
- Lookahead Interflow
- Queue Status Indications
- Recorded Announcements
- Service Observing
- Stations
- Wide Area Telecommunications Service Trunk Group

Figure 4-5 provides an example of an ACD arrangement.

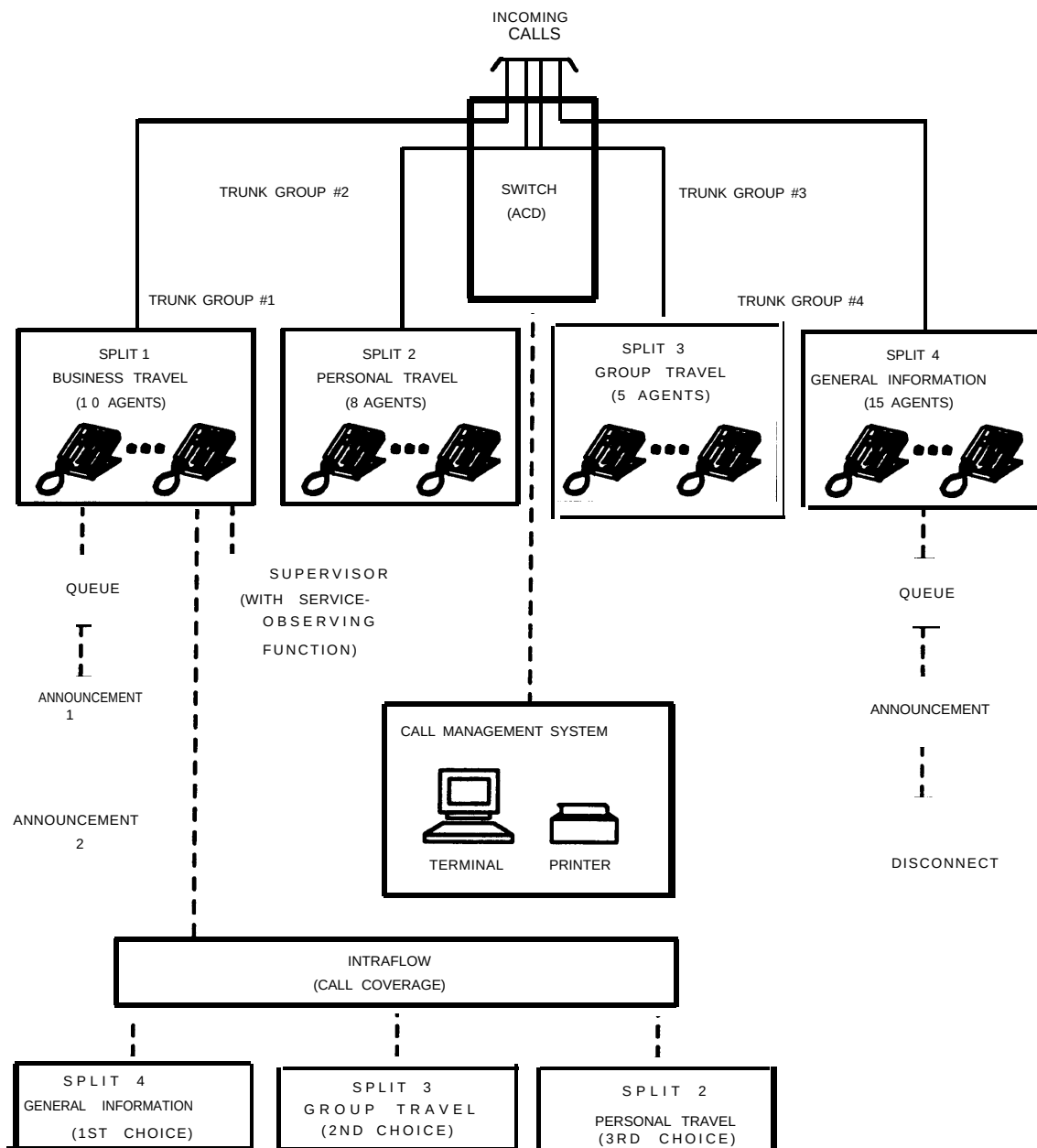


FIGURE 4-5. Typical Automatic Call Distribution Arrangement

Administration

The Automatic Call Distribution option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following forms must be completed.

Form	Field	Form Instructions (Page #)
Trunk Groups:	Incoming Destination	
CO		5-123
FX		5-180
Tie		5-247
WATS		5-264
Attendant Console	Headset, Auto Answer	6-32
Station	Headset, Auto Answer	6-245
Hunt Groups	ACD	6-160
Feature-Related System Parameters	ACD Log-In Identification Length	6-133
Vector Directory Number	Measured	6-222
Feature Access	ACD Features	6-127

- Trunk Group Forms—Group Number Field—Assign consecutive Group Numbers to trunk groups when two or more trunk groups are to be used to support ACD applications.
Incoming Destination Field—Enter ACD hunt group extension number in the Incoming Destination field. Note that the use of the Abandoned Call Search feature is not supported for tie trunks.
- Attendant Console Form—Enter “y” in the Headset and Auto Answer fields.
- Station Forms—if required, enter “y” in the Headset and Auto Answer fields. Assign voice terminals, as required, including the Callmaster™ digital voice terminal.
- Hunt Groups Form—Complete fields that apply when ACD field is set to “y.”
- Feature-Related System Parameters Form—Enter in the ACD Log-In Identification field the number of digits (0 through 9) that must be dialed to access ACD.
- Vector Directory Number Form—Specify in the Measured field whether the System will transmit data for the VDN to the CMS.
- Feature Access Form—Assign feature access codes for the ACD features.

Hardware and Software Requirements

Each auxiliary queue warning level lamp requires one port on a TN742, TN746B, or TN769 Analog Line circuit pack. A 21C-49 indicator lamp may be used as a queue warning level lamp. This lamp is approximately two inches in diameter and has a clear beehive lens. The lamp operates on ringing voltage and can be mounted at a location convenient to the split. Each delay announcement requires one port on a TN750 Integrated Announcement circuit pack or announcement equipment and one port on a TN742, TN746B, or TN769 Analog Line circuit pack. If music is to be heard after the first delay announcement, a music source and a port on a TN763C Auxiliary Trunk circuit pack is required. If a CMS is to be used, CMS software and hardware is required.

Automatic Callback

Allows internal users who placed a call to a busy or unanswered internal voice terminal to be called back automatically when the called voice terminal becomes available. Note that Automatic Callback is not functional for call placed to VDNs.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Pages #)
Feature-Related System Parameters	Automatic Callback—No Answer Timeout Interval (rings)	6-133
Feature Access Codes	Automatic Callback Activation/Deactivation	6-127
Station (multi-appearance)	Button/Feature Button Assignments -auto-cback	6-245
Class of Service	Auto Callback (0-15)	6-77

- Feature-Related System Parameters Form—Specify callback time-out interval in the Automatic Callback—No Answer Time-out Interval (rings) field.
- Feature Access Codes Form—Verify Automatic Callback Activation and Deactivation fields have been assigned.
- Station Forms—Assign Automatic Callback (auto-cback) buttons to multi-appearance voice terminals, as desired.
- Class of Service Form—Verify Automatic Callback field has the correct permission.

Hardware Requirements

None.

Automatic Circuit Assurance

Assists users in identifying possible trunk malfunctions. The System maintains a record of the performance of individual trunks relative to short and long holding time calls. The System automatically initiates a referral call to an attendant or to a designated display-equipped voice terminal user when a possible failure is detected.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	ACA Enabled	6-133
	ACA Referral Calls	
	ACA Referral Destination	
	ACA Short Holding Time Originating Extension	
	ACA Long Holding Time Originating Extension	
	ACA Remote PBX Identification	
Attendant Console	Feature Button Assignments -aca-call	6-32
Trunk Groups:	ACA Assignment Short Holding Threshold Long Holding Time Short Holding Time	
Access		5-98
APLT		5-112
CO		5-123
CPE		5-137
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264
Station (multi-appearance)	Button/Feature Button Assignments -aca-call	6-245

- Feature-Related System Parameters Form—Verify Automatic Circuit Assurance (ACA) Enabled? field is assigned and the following fields are completed:
 - ACA Referral Calls
 - ACA Referral Destination
 - ACA Short Holding Time Originating Extension
 - ACA Long Holding Time Originating Extension
 - ACA Remote PBX Identification, when ACA referral is specified as “remote.”
- Attendant Console Form—Assign aca-call button.

Note: Only one aca-call button can be assigned to the System. The button can be assigned to the attendant console or a voice terminal.

- Trunk Group Form—Verify ACA Assignment field is completed and the Short Holding Time, Long Holding Time, and Short Holding Time Threshold fields are completed.
- Station Forms—Assign aca-call button if one was not assigned to the attendant console.

Hardware Requirements

A TN725B Speech Synthesizer circuit pack is required if the referral destination is not a display-equipped voice terminal.

Automatic Route Selection

Routes calls over the public network based on the preferred (normally the least expensive) route available at the time the call is placed.

Administration

The ARS option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	FRL Partitioned Group Number Time of Day Plan Number	6-72
Dial Plan	Area Code ARS Prefix 1 Required	6-117
Feature Access Codes	Automatic Route Selection (ARS) Access Code	6-127
Toll Analysis	Dialed String Max/Min RCL UCL (1-10) Toll List	6-216
ARS Analysis	All	5-15
ARS Digit Conversion	All	5-20
Routing Patterns	All	5-29
Remote Home Numbering Plan Area (RHNPA)	All	5-24
ARS Toll Table	All	5-27
Time of Day Routing	All	5-34
Feature-Related System Parameters	AAR/ARS Dial Tone Required	6-133

- **COR Forms**—Assign FRLs for station CORs. The minimum FRLs required to access a route are assigned as part of the Routing Pattern. Assignment of these values determines the calling privileges associated with calls placed from stations assigned the COR.

Assign an appropriate Partitioned Group Number (1 through 8) or a TOD Routing Plan Number (1 through 8) if the respective field is displayed on the form. (The TOD Plan Number field is displayed if the TOD Routing option is enabled on the System-Parameters Customer-Options form. The Partitioned Group Number field is displayed if the ARS Partitioning option is enabled and the Time of Day Routing option is not enabled.)

- **Dial Plan Form**—Enter the HNPA (Area Code) and complete the ARS Prefix 1 Required field.
- **Feature Access Codes Form**—Verify or assign ARS access codes (one and two).
- **Toll Analysis**—Complete the Dialed String, Min/Max, Toll List, RCL, and UCL fields as required to control outgoing call access.
- **ARS Analysis Form**—Complete all fields as required.
- **ARS Digit Conversion Form**—Complete all fields as required.
- **RHNPA Form**—Complete all fields as required. This form can be used for 3-digit translations in addition to that provided on the ARS Analysis form. Translations for digits in the range 000 through 999 can be provided.
- **Routing Patterns Form**—Complete all fields as required.
- **ARS Toll Table Form**—Complete all fields as required to map 10-digit DDD numbers to 7-Digit ETN numbers (RNX-XXXX).
- **TOD Routing Form**—Assign up to eight TOD charts. Each chart can have up to eight routing plans administered, each scheduled to change (based on the time of day entered on the form) up to six times a day for each of the seven days in a week. This is an optional form. The Private Networking, ARS Portioning, and TOD Routing must be enabled on the System-Parameters Customer-Options form before this form can be implemented.
- **Feature-Related System Parameters Form**—Complete the AAR/ARS Dial Tone Required field. Enter “y” if second dial tone is required after the feature access code; otherwise, enter “n.”

ARS Guidelines and Examples

The examples that follow are designed to illustrate some of the practical aspects of ARS. These are, however, only examples. In reality, each System must be administered to meet its individual needs.

Completing the Class of Restriction Forms

Make assignments as required for the following fields on each station's COR form:

- **FRL**— Enter an originating FRL number from 0 through 7 to assign call privileges for calls placed from stations assigned the COR. An originating FRL of 0 has the least calling privileges and “7” the most.
- **Partitioned Group Number**— Only displayed when the ARS Partitioning option is enabled and the TOD Routing option is not enabled on the System-Parameters Customer-Options form. Enter the appropriate Partitioned Group Number (1 through 8).
- **Time of Day Plan #**— Only displayed when the TOD Routing option is enabled on the System-Parameters Customer-Options form. Enter the appropriate TOD Plan number (1 through 8).

Completing the Dial Plan Record

Make assignments as required for the following fields:

- **Area Code**— Enter the HNPAs of the PBX.
- **ARS Prefix 1 Required**— Enter “y” if the user is required to dial one to indicate a 10-digit toll call. This is required when the PBX is located within an area code that contains central office codes that resemble area codes. Several typical locations include: 201 in New Jersey, 212 in New York, and 312 in Chicago.

The following examples show how dialed numbers are interpreted by the System if “y” is assigned to the ARS Prefix 1 Required field. The number 9 represents the ARS Access Code. Note that the following assumes default ARS Analysis translations (see ARS Analysis coverage in Chapter 5). Changes to the default translations may alter the following.

1. 9+1+(212)-201-1234 infers a 10-digit toll call.
2. 9+(212)-201-1234 infers that 212 is a Central Office Code. The System accepts only the first seven digits following the ARS Access Code. The number 212-2011 is sent to the CO.
3. 9+201-1234 infers a 7-digit call within the HNPAs.
4. 9+1+201-1234 infers the first seven digits of a 10-digit toll call and waits for the remaining 3 digits. The number being outputted is (201)-123-4xxx.

If the number being dialed is a toll call within the HNPAs and the CO Code resembles an area code as in the preceding example, then the HNPAs must also be included in the number dialed (refer to example number 1).

5. 9+922-1234 or 9+1+922-1234 infers a 7-digit call (or toll call) within the HNPAs. This example differs from example number four in that the CO Code (922) does not resemble an area code.
- **FIRST DIGIT TABLE**— Assign “fac” (Feature Access Code) as the Identification for the Digit 9.

Completing the Feature Access Codes Form

Make assignments as required for the following fields:

- **Auto Route Selection (ARS) Access Code**— Assign an access code to ARS. The usual entry is "9."

Completing the ARS Routing Patterns Form

Make assignments as required for the following fields (see example form which follows discus-

- **Pattern Number**— Enter a Pattern Number 1 through 254.
- **Grp No.**— Enter the desired trunk group number 1 through 99.
- **FRL**— Enter the FRL 0 through 7 (0 being the least restrictive and 7 being the most restrictive) for this trunk group as it will be used by this pattern only. Trunk group FRLs are changeable from pattern to pattern. The FRL assigned to the trunk group when the COR is defined is not used on ARS calls.
- **NPA**— Enter the NPA of the distant end. For WATS trunks, the term NPA is the same as the home NPA. For tie trunks, the NPA field is left blank.
- **Prefix Mark**— Enter a number 0 through 4 as indicated. This determines the outpulsing of the Prefix digit 1.
 - 0— indicates that the Prefix digit 1 is never outpulsed for 10-digit user-dialed FNPA calls, but leaves a user-dialed Prefix digit 1 for 7-digit HNPA calls. Prefix Mark 0 also leaves 1's on 10-digit calls that are not administered as FNPA- or HNPA-types.

Note: This capability is required, for example, when routing ISDN-PRI calls to an AT&T 4ESS. If the prefix digit 1 were not suppressed, then the 4ESS would reject such calls.

- 1— indicates that the Prefix digit 1 is outpulsed if and **only if** the call is a 10-digit call. Prefix Mark 1 should be selected for those HNPAs that require users to dial 1 to indicate a toll call.
- 2— indicates that the Prefix digit 1 is outpulsed for **all** toll calls, 7- and 10-digit.
- 3— indicates that the Prefix digit 1 is outpulsed for **all** toll calls. These calls are always outpulsed as 10-digit numbers, even those within the HNPA.
- 4— indicates that Prefix digit 4 will always suppress a user-dialed Prefix digit 1.

Note: This capability is required, for example, when routing ISDN-PRI calls to an AT&T 4ESS. If the prefix digit 1 were not suppressed, then the 4ESS would reject such calls.

Note: Prefix Marks 2 and 3 must refer to a Toll Table (see next entry).

- **Toll List**— Enter a number, 1 through 32, that references the ARS Toll Table assigned to this trunk group. This field must be completed if the Prefix Mark is 2 or 3.
- **No. Del. Digits**— Enter the total number of digits (0 through 18) to be deleted when this trunk group is selected for use within this pattern.
- **Inserted Digits**— Enter the actual digits to be inserted, 0 through 36. The digits may be divided into groups separated by a wait for dial tone separator. “Wait” takes two digit places. The “,” is used for pause, “+” for the second dial tone, and “%” for end-to-end signaling.

As an example, assume that an FX trunk group to North Carolina (Area Code 919) is being defined:

1. The ARS user dials 9+(919)-555-1349. (The first 9 represents the ARS Access Code.)
2. The System checks the ARS Analysis Table for the assigned Routing Pattern.
3. For the identified routing pattern, if a trunk is available on the first routing preference, then the call is allowed. If a trunk is not available, then the System will search the next routing preference for an available trunk on the next trunk group listed on the routing pattern.
4. Assume that on the routing pattern that the value assigned to No. Del. Digits field is three. The System deletes the first three digits dialed (that is, the digits 919 are deleted).

Prefix Mark 2 is specified on the routing pattern and the associated Toll Table field is three. As a result, Toll Table 3 is checked to determine if the call is a local or toll call with respect to the office at the distant end of the trunk. If local, the number 555-1349 is outpulsed; if toll, 1-555-1349 is outpulsed.

No digits are inserted for this example.

Page 1 of 1

Pattern Number: _

Pattern Assignments (Enter Up To 6)

Grp. No.	FRL	NPA	Prefix Mark	Toll List	No. Del Digits	Inserted Digits	IXC
1 .	—	—	—	—	—	—	—
2 .	—	—	—	—	—	—	—
3 .	—	—	—	—	—	—	—
4 .	—	—	—	—	—	—	—
5 .	—	—	—	—	—	—	—
6 .	—	—	—	—	—	—	—

BCC Value					CA-TSC	ITC	BCIE	Service/Feature	
0	1	2	3	4	TSC Request				
1. y	y	y	y	y	n	—	rest	—	Band: —
2. y	y	y	y	y	n	—	rest	—	Band: —
3. y	y	y	y	y	n	—	rest	—	Band: —
4. y	y	y	y	y	n	—	rest	—	Band: —
5. y	y	y	y	y	n	—	rest	—	Band: —
6. y	y	y	y	y	n	—	rest	—	Band: —

SCREEN 4-13. Routing Pattern Form (Page 1 of 1)

Implementation Note:

The IXC, BCC Value, TSC, CA-TSC Request, ITC and Service/Feature fields are only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

BCIE is only administrable if ITC is set to "both."

CA-TSC is only administrable if TSC is set to "y" (yes).

The Band field is only displayed if the Service/Feature field is "outwats-band."

Completing the ARS Analysis Table

Up to eight of these forms can be assigned. Each form can be associated with a different PGN (1 through 8). The form is used to associate dialed or modified strings to routing patterns (1 through 254). An associated Call Type field for each Dialed String entry is used to identify the call type (for example, international, operator assisted, FNPA, HNPA, etc.).

Completing the ARS Digit Conversion Table

This form is used to modify dialed public network numbers to private network numbers so as to route associated calls by the private network (AAR). Its purpose is to save toll charges and to allow users to dial calls using public numbers. In addition, unauthorized public calls can be intercepted and routed to an attendant or given intercept treatment.

Completing the Remote Home Numbering Plan Area

The form is used for the translating of 3-digit codes in the range of 000 through 999. The form consists of 10 pages of 100 codes each: 000-099, 100-199, 200-299, . . . to 900-999. Up to 32 RHNPA Tables may be administered. Each screen form provides fields for the selection of up to 12 Routing Pattern choices. Each Code is assigned a Routing Pattern from the 12 routing pattern choices that can be assigned on the form. It is not necessary to assign all 12 choices.

The form can be used to translate 3-digit codes in addition to the translations provided by the ARS Analysis Table

Enter a routing pattern number from the routing patterns listed (1 through 12) for each 3-digit code to receive additional translations. Ranking of Pattern choices is not pertinent, however, because the default value for each code is one, the Routing Pattern assigned to Pattern Choice 1 should be the one used most frequently.

Completing the Automatic Route Selection Toll Table Form

This form is used to specify whether calls to central office codes are toll or nontoll type calls.

This 800-entry table consists of eight screen forms of 100 office codes each: 200-299, 300-399,...800-899, 900-999. Up to 32 ARS Toll Tables may be completed. The default value for each office code is "y." This implies that all calls are toll calls. To identify those calls within the Table that are not toll calls, change the "y" to "n" beside the appropriate office codes.

Toll Tables are associated with the terminating NPA of a given trunk group. They are always required for those trunk groups assigned a Prefix Mark of two or three on the Routing Pattern form. Refer to Prefix Mark (described earlier under "Completing the ARS Routing Patterns Form") for additional information on Prefix Marks.

Hardware Requirements

None.

Automatic Wakeup

Allows attendants, front desk users, and guests to request that a wakeup call be placed automatically to a certain extension number at a later time. Wakeup requests may be placed from five minutes to 23 hours and 55 minutes in advance of the wakeup call. Note that a wakeup call cannot be programmed for a VDN.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed,

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignment -Auto-wkup	6-245
Attendant Console	Feature Button Assignments -Auto-wkup	6-32
Class of Service	Console Perms	6-77
Feature Access Codes	Announcement Access Code	6-127
Feature Access Codes For Hospitality Features	Automatic Wakeup Call Access Code Voice Do Not Disturb Access Code Verify Wakeup Announcement Code	6-127
Hospitality-Related System Parameters	Announcement Type Length of Time To Remain Connected To An Announcement Announcement Ports Auxiliary Board For Announcement Extension To Receive Failed Wakeup LWC Messages Extension of Journal/ Schedule Printer Time of Scheduled Wakeup Activity Report Time of Scheduled Wakeup Summary Report Routing Extension On Unavailable Voice Synthesis	6-154

- Station Form—Assign an “auto-wkup” button to 510, 515, 615, 715 or 7400 series voice terminal equipped with a display.
- Attendant Console Form—Assign an “auto-wkup” button to the attendant console.
- COS Form—Assign the correct console permissions so the attendant console can place wakeup requests for voice terminals.
- Feature Access Codes Form—Assign Announcement Access Code.
- Feature Access Codes for Hospitality Features Form—Assign Automatic Wakeup Call Access Code used for voice prompting. Assign Voice DND field, and Verify Wakeup Announcement codes.
- Hospitality-Related System Parameters Form—Assign the type of automatic wakeup announcement the hotel guest will receive.
 - Assign the announcement ports if the voice synthesis was entered for the announcement type.
 - Assign an auxiliary board for announcement if external is used for announcement type.
 - Assign extension number to receive unsuccessful Wakeup LWC messages.
 - Assign extension number to the journal/schedule printer.
 - Assign time to receive the scheduled wakeup activity report.
 - Assign time to receive scheduled wakeup summary report.
 - Assign length of time to remain connected to announcement.
 - Assign extension number (or 0 for the attendant) to which a call will be placed during voice synthesis entry of a wakeup message request when a voice synthesis port is not available.

Hardware Requirements

If voice prompting is used, a TN725B Speech Synthesizer circuit pack is required. Each circuit pack has four ports to provide voice prompting. If speech synthesis is selected for wakeup call announcements, two ports must be reserved for wakeup announcements.

If recorded announcements are used, a model HQD614B Recorder/Announcer manufactured by the Audichron Company is required. Each Recorder/Announcer requires four trunk ports which must be on the same TN763C Auxiliary circuit pack.

Basic Call Management System

BCMS provides a subset of the 3B CMS applications within the System's digital switch. BCMS provides real-time and historical reports which assist in the management of individual agents, ACD splits, and trunk groups.

BCMS reports can be accessed and displayed on the DEFINITY G3 Management Terminal and can be scheduled to print on a dedicated asynchronous printer associated with the System's Report Scheduler. Printout intervals and associated schedules are assigned using "report scheduler" administration commands on the G3 Management Terminal. (Refer to the Report Scheduler coverage for administration information associated with the Report Scheduler and its dedicated System printer interface.)

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Hunt Groups	Measured	6-160
Trunk Groups	Measured	5-247
Feature-Related System Parameters	BCMS Parameters -Measurement Interval	6-133

- Hunt Group and Trunk Group Forms—Assign the Measured field on the Hunt Group and Trunk Group forms as one of the following:
 - internal - measured by BCMS only (internal to the digital switch)
 - external - measured by CMS adjunct only (external to the digital switch)
 - both - measured by both BCMS and the CMS adjunct
 - none - not measured (system default).
- Feature-Related System Parameters Form—Assign either "hour" or "half-hour" in the Measurement Interval field associated with the BCMS Parameters to indicate the interval to be used in polling and reporting measurement data.

Hardware Requirements

None (refer to the Report Scheduler coverage for associated printer interface requirements).

Bridged Call Appearance—Multi-Appearance Voice Terminal

Allows multi-appearance voice terminal users to have an appearance of another user's primary extension number. The bridged call appearance can be used to originate, answer, and bridge onto calls to or from the other user's primary extension number.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Bridged Call Alerting Button/Feature Button Assignments -brdg-appr	6-245

- Station Forms—Assign “brdg-appr” to a 2-lamp button. In the BTN field, enter the button number of the call appearance on the principal voice terminal that is being bridged. Enter the principal's extension in the “Ext.” field. Enter “y” or “n” in the Bridged Call Alerting field to enable or disable the audible signal on bridged call appearances. One button must be assigned for each bridged appearance. If the principal has three call appearances, the bridging extension must have three bridged appearances assigned in order to emulate the principal's extension. Less than a full complement of bridged extensions can be assigned, but call appearance emulation (tracking) is on a one-for-one basis.

Hardware Requirements

None.

Bridged Call Appearance—Single-Line Voice Terminal

Allows a multi-appearance voice terminal to have an appearance of a single-line voice terminal's extension number. The appearance of the single-line terminal's extension number at a multi-appearance terminal is called a bridged call appearance.

The bridged call appearance can be used to originate, answer, or bridge onto an existing call to or from the single-line user's extension number.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Bridged Call Alerting Button/Feature Button Assignments -abrdg-appr	6-245

- Station Form—Assign “abrdg-appr” to a 2-lamp feature button. Enter the principal's extension in the dynamic field, “Ext.” Enter “y” or “n” in the Bridged Call Alerting field to enable or disable the audible signal on bridged call appearances. One button must be assigned for each bridged appearance to a single-line voice terminal.

Hardware Requirements

None.

Business Communications/Personal Terminals

The System supports the following special purpose terminals:

- AT&T Personal Terminal 510D
- 515 Business Communications Terminal (BCT).

The 510D integrates voice and data transmission into a single terminal. It has an integral data module and provides a DCP channel interface to the digital switch. The 510D can serve as a remote on-premises administration terminal.

The 515 BCT integrates voice and data into a single terminal. It has an integral data module and provides a DCP channel interface to the digital switch. The 515 BCT provides a standard EIA 232C interface and can serve as a remote on-premises administration terminal or as a standard data terminal.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
510D	All	6-268
515/615 BCT 715 BCS	All	6-268
Data Line Data Module	All	6-89

Hardware Requirements

510D Form—Requires a port on a TN754B Digital Line circuit pack.

515 or 615 BCT Form—Requires a port on a TN754B Digital Line circuit pack.

715 BCS Terminal Form—Requires a port on a TN754B Digital Line circuit pack.

Data Line Data Module Form—Requires an ADU and a port on a TN726B Data Line circuit pack when the terminal is used as a remote on-premises administration terminal or as a standard data terminal.

Busy Verification of Terminals and Trunks

Allows attendants and specified multi-appearance voice terminal users to make test calls to trunks, voice terminals, and hunt groups (DDC and UCD groups). These test calls check the status of an apparently busy resource. Note that Busy Verification of VDN will be denied.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Feature Button Assignments -verify	6-32
Station (multi-appearance) (this feature is best utilized on a display-equipped voice terminal)	Button/Feature Button Assignments -verify	6-245

- Attendant Console Form—Assign a “Verify” button.
- Station Forms—Assign a “Verify” button per multi-appearance voice terminal.

Hardware Requirements

None.

Call by Call Service Selection

Allows the System to set up, on a call-by-call basis, various voice and data services and/or features for a particular call. Services/Features such as MEGACOM service, ACCUNET digital service, and INWATS can be integrated onto a single transmission facility (ISDN-PRI trunk group) with flexible assignment of trunks to the Service/Feature being used. Calls such as an incoming 800 Service call requiring through switching as an Outgoing WATS call can be routed via the same facility.

Note: The Call by Call Service Selection feature is only available if the ISDN-PRI option on the System-Parameters Customer-Options form has been enabled.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed. Note that in addition to the following administrable forms, the Network Facilities form (Chapter 5), which is a display-only form, provides a listing of the predefine services and features that are available to support the Call by Call Service Selection feature.

Form	Field	Form Instructions (Page #)
ISDN-PRI Trunk Group	Service Type Usage Allot	5-195
Routing Patterns	IXC Service/Feature Band	5-29

- ISDN-PRI Trunk Group Form—Enter “cbc” in the Service Type field (up to ten ISDN-PRI trunk groups can be assigned with a Service Type of cbc). If the Usage Allot field is administered as “y,” two additional Call by Call related pages of the trunk group form are displayed. Complete all associated fields on the form as required.
- Routing Patterns Form—Complete all fields including the following:
 - IXC—Enter three digits to represent the IXC which will be used to carry an associated call. If no entry is provided, calls will be carried by the presubscribed carrier.
 - Service/Feature—Enter the network provided Service/Feature for establishing an associated call. Refer to the Network Facilities form for a list of valid Services/Features (MEGACOM service, ACCUNET digital service, INWATS, etc.)
 - Band—If the Service/Feature field is administered as “outwats-bnd,” the Band field will be displayed. Enter the wats band to be used for carrying the call.

Hardware Requirements

None (refer to ISDN-PRI Trunk Group for trunk group hardware requirements).

Call Coverage

Provides automatic redirection of certain calls to alternate answering positions in a Call Coverage path. Note that a VDN cannot be administered as a Coverage Point.

There are two reports that provide measurement information about call coverage.

- The Coverage Path Measurement Report describes coverage activity as it relates to the coverage paths.
- The Principal Coverage Measurement Report describes coverage activity as it relates to the principal.

For each report, there is a selection form that lists the specific coverage paths or principal to be measured. For more detailed information on these reports and their associated commands, refer to *DEFINITY® Communications System Generic 1 and Generic 3i System Reports*, 555-204-510.

Administration

To implement this feature, the following form(s) or sections of the form(s) should be completed depending on your needs.

Form	Field	Form Instructions (Page #)
Call Coverage Answer Group *	All	6-53
Call Coverage Paths	All	6-55
Feature-Related System Parameters	Coverage—Don't Answer Interval For Subsequent Redirection (rings) Coverage—Caller Response Interval (seconds) Keep Held SBA at Coverage Point	6-127
Feature Access Codes *	Send All Calls Activation and Deactivation Transfer into AUDIX	6-127
Hunt Groups	All	6-160
Terminating Extension Group *	All	6-214

* Complete if required for your needs.

Form	Field	Form Instructions (Page #)
Station (principals—the one to whom the call is first directed)	Coverage Path Redirect Notification Coverage Msg Retrieval Permission Button/Feature Button Assignments -goto-cover -send-calls (Type:_Grp:_)	6-245
Station (multi-appearance)	Button/Feature Button Assignments -consult -cov-cback -send-calls -goto-cover (Type:_Grp:_)	6-245
Trunk Group APLT Tie	Internal Alert	5-112 5-247

- Call Coverage Answer Group Form—Establish coverage answer groups.
- Call Coverage Paths Form—Establish desired coverage paths.
- Feature-Related System Parameters Form—Verify or complete Coverage Don't Answer Interval for Subsequent Redirection (rings), Keep Held SBA at Coverage Point, and Coverage-Caller Response Interval (sees) fields.
- Feature Access Codes Form—Verify or assign a “Send All Calls Activation and Deactivation” code, if desired. If required, enter the digits that must be dialed (1 to 3 digits) to have the caller transferred to the called party's AUDIX mail box.
- Hunt Groups Form—Assign coverage path to groups, as desired.
- Terminating Extension Group Form—Assign coverage paths to groups as desired.
- On principal's Station Form—(the one to whom the call was first directed):
 - Assign a Call Coverage Path.
 - Complete Redirect Notification field (which causes the principal's voice terminal to receive a half ring on calls that redirect to coverage). This field is common to Call Coverage and Call Forwarding.
 - Complete Coverage Msg Retrieval Permission field (which allows any user in the principal's call coverage path to retrieve the principal's LWC messages).

- Assign a Go to Cover (goto-cover) button, if desired.
- Assign a Send All Calls (send-calls) button, if desired.
- On covering user's Station Form (the one to whom a call redirects), assign the following buttons, as desired:
 - Consult
 - Coverage Answer Group Numbers (in-call-id field)
 - Coverage Call Back ("cov-cback")
 - Send All Calls.
- Station Form—On voice terminals where users will place calls that can redirect to Coverage, assign a Go to Coverage (goto-cover) button, if desired.
- APLT and Tie Trunk Group Forms—Assign "y" to the Internal Alert field to specify that internal ringing and call coverage will be used for incoming calls on these trunk groups.

Call Coverage Guidelines and Examples

The examples that follow illustrate some of the practical aspects of Call Coverage. These are, however, only examples. In reality, each System must be administered to meet its individual needs.

Three typical coverage arrangements are as follows:

- **Executive Coverage**

Provides a principal with call redirection to covering users having a close working relationship with the principal. Because of the status of the principal, personalized answering should be provided. Also, the principal may or may not choose to answer his or her own calls.

A typical example of this form of coverage is when a principal's calls are redirected to a secretary. The secretary would be informed of the principal's daily schedule and other pertinent facts such as the importance of certain calls. The secretary could provide personalized answering by answering calls with the principal's name.

If the secretary is unavailable to answer the coverage call for the principal, the call redirects to a backup answering position. Personalized answering should also be provided at the backup position.
- **Middle Manager Coverage**

Provides a group of principals with call redirection to one or more covering users (such as a secretary). The secretary should have some knowledge of the principal's daily schedule. A backup answering position should be provided in case the secretary is unavailable.
- **General User Coverage**

Provides less-personal coverage for a broader spectrum of users. Covering users typically consist of a group or pooled answering arrangement. With this type of arrangement, coverage calls may be distributed among the members of the answering group.

As an example of how to provide a particular cover arrangement, the following provisions for the Executive Coverage arrangement are given.

- Determine if the secretary and backup position have a call display capability.
 - If so, Coverage Answer Groups are not required.
 - If not, establish a unique Coverage Answer Group for each one without a display. Specify only the applicable extension number. The Coverage Answer Group will contain only one member. Establish two groups, if required. Note that if the secretary and/or the backup answering position are in a Coverage Answer Group, each will receive only one redirected call for the executive at any given time. Calls do not ring a Coverage Answer Group member already busy on a call to the group. For frequently called executives, it is desirable that the secretary and possibly the backup answering position have a digital display capability.
- Establish a unique Call Coverage Path for the executive.
 - If the secretary will screen the calls, specify Cover All Calls as the redirection criteria.
 - If the executive will answer calls, specify Active, Busy, Don't Answer, Active/Don't Answer, or Busy/Don't Answer as desired.
 - Specify the secretary and the backup position [or the Coverage Answer Group(s) containing the secretary's and backup position's extension numbers] as the coverage points in the path.
- Optionally, specify a Send All Calls button on the executive's voice terminal. If someone else answers the executive's calls, the button is not needed.
- Specify a Send All Calls button and a Consult button on the secretary's voice terminal. Specify a Coverage ICI button if the secretary doesn't have a call display capability. Send All Calls is needed if the secretary will be unavailable for a period of time. Consult is needed to enable private consultation with the executive during an established call. Coverage ICI is needed to identify the call as a call to the executive rather than a personal call to the secretary.
- Specify a Consult button and a Coverage ICI button on the backup position's voice terminal for the same reasons these buttons were specified for the secretary.

Hardware Requirements

None.

Call Forwarding—All Calls

Allows all calls to an extension number to be forwarded to a selected internal extension number (may be a VDN), external (off-premises) number, the attendant group, or a specific attendant. This feature is activated or deactivated by dial access code or by a Call Forwarding button.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Call Forwarding Activation and Deactivation	6-127
Station (multi-appearance)	Redirection Notification Button/Feature Button Assignments -call-fwd	6-245
Class of Service	Call Forwarding (0-15)	6-77

- Feature Access Codes Form—Verify Call Forwarding Activation and Deactivation field access codes have been assigned.
- Station Forms—Complete Redirect Notification field (which causes the forwarding terminal to receive a half ring on calls that forward). This field is common to Call Coverage and Call Forwarding. Assign a Call Forwarding (call-fwd) button, if desired.
- COS Form—Verify Call Forwarding field has the correct permission.

Hardware Requirements

None.

Call Management System (CMS) Interface

The CMS is an adjunct to the System and is used to collect and process ACD data and VDN data where applicable. The CMS uses this data to generate various reports on the status of agents, splits, and trunks. These reports can be stored for later use or can be displayed on a terminal for real-time information. Refer to Figure 4-5 for a typical ACD CMS arrangement.

R2 CMS enables a G3i switch to work with the Release 2 Call Management System. ACD must be optioned for R2 CMS, and the “Adjunct CMS Type” field must be administered as “R2” on Page 4 the Feature-Related System Parameters form.

Note: Procedures covering the use of the System-Parameters Customer-Options form are provided in *DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test*, 555-230-104. Refer to Chapter 4 for a brief description of each optional feature or to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201 for a detailed description of each feature.

Messaging and reporting for VDNs and vectors are supported. However, since direct agent call statistics are grouped with regular split call statistics, it is not recommended that direct agent calling be used when a G3i switch is connected to an R2 CMS. The Basic Call Management System (BCMS) produces the same reports regardless of the type of CMS adjunct administered on the switch.

When a G3i switch is connected to an R2 CMS, the administration of vectoring must be the same on both ends. If the G3i switch has vectoring/basic and/or vectoring-prompting administered, then the R2 CMS must have vectoring turned on. Similarly, if the G3i switch has neither vectoring/basic nor vectoring-prompting administered, then the R2 CMS must have vectoring turned off.

Hardware Requirement

The CMS interface requires one port on a TN754B Digital Line circuit pack and a MPDM. Each auxiliary queue warning lamp requires one port on a TN742, TN746B, or TN769 Analog Line circuit pack. A 21C-49 indicator lamp may be used as an auxiliary warning lamp.

The adjunct processor for R2 CMS is a 3B2 mini-computer.

Also, refer to the ACD feature coverage for a listing of associated forms that must be administered to implement the ACD feature.

To implement CMS features, refer to the following features in this part:

- Abandoned Call Search
- Agent Call Handling
- Intraflow and Interflow
- Queue Status Indications
- Recorded Announcements
- Service Observing.

Administration

To implement the CMS interface, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Processor Interface Data Module	All (for one CMS link)	6-112
Interface Links	All (for one CMS link)	6-175
Processor Channel Assignment	All (for one CMS link)	6-194
Modular Processor Data Module	All	6-105
Hunt Groups	Measured	6-160
Vector Directory Number	Measured	6-222
Trunk Groups:	Measured	
Access		5-98
APLT		5-112
CO		5-123
CPE		5-137
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264
Featured-Related System Parameters	ACD Log-In ID Length	6-133

- Processor Interface Data Module Form—Complete all fields as required. Assigns a link (interface channel) in the digital switch for the CMS interface. Eight links (01 through 08) are available for assignment in a multi-carrier cabinet System. A single-carrier cabinet has four links—01 through 04.
- Interface Links Form—Complete all fields on the form for one link, as required. Assign a link from the Processor Interface circuit pack for CMS. Note that when administering the Interface Links form using a **change communications-interface links** command, all fields may be initially entered except the Enable field. After completing and administering the Processor Channel assignment form, recall the Interface Links form using the change command and then enable the appropriate links by entering “y” in the Enable fields.
- Processor Channel Assignment Form—Complete the required fields on the form for CMS interface. Enter the CMS link number from the Interface Links Form.
- MPDM Form—Complete all fields as required.
- Hunt Groups Form—Complete the form that applies when Measured is answered either “external” or “both.”
- Vector Directory Number—Specify in the Measured field whether the System will transmit data for the VDN to the CMS.
- Trunk Group Forms—Specify in the Measured field whether the System will transmit data for the trunk group to the CMS.
- Feature-Related System Parameters Form—Enter in the ACD Log-In ID Length field the number of digits that must be dialed to access ACD. This field cannot be “0” for CMS.

Call Park

Allows users to put a call on hold and then retrieve the call from any other voice terminal within the system.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Call Park Access Code Answer Back Access Code	6-127
Feature-Related System Parameters	Call Park Timeout Interval (minutes)	6-133
Station (multi-appearance)	Button/Feature Button Assignments -call-park	6-245
Console Parameters	common shared Extensions-(all fields)	6-79

- Feature Access Codes Form—Verify Call Park Access Code and Answer Back Access Code fields are completed.
- Feature-Related System Parameters Form—Complete Call Park Timeout Interval (minutes) field.
- Station Forms—Assign Call Park button to voice terminal, if desired.
- Console Parameters Form—Complete Common Shared Extension fields.

Hardware Requirements

None.

Call Pickup

Allows voice terminal users to answer calls to other extension numbers within the user's specified Call Pickup group.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Call Pickup Access Code	6-127
Pickup Groups	All	6-191
Station (multi-appearance)	Button/Feature Button Assignments -call-pkup	6-245

- Feature Access Codes Form—Complete Call Pickup Access Code field.
- Pickup Groups Form—Establish pickup groups.
- Station Forms—Assign Call Pickup (call-pkup) buttons to voice terminals, if desired.

Hardware Requirements

None.

Call Prompting

Provides flexible call handling based on information (for example, touch-tone digits) collected from a calling party. Applications such as an automated attendant function, limited Data In/Voice Answer (DIVA) capability, data collection, and message collection is supported as follows:

- **Automated Attendant**— Allows the calling party to enter the extension of the party to be called. The call is routed to the desired extension.
- **Data In/Voice Answer**— Allows the calling party to hear a particular announcement based on the digits entered.
- **Data Collection**— Allows the calling party to enter data which could then be used by a host/adjunct to assist in call handling. This data, for example, may be the calling party's account number.
- **Message Collection**— Allows the calling party the option to leave a message for an extension (for example, split/hunt group, station, etc.) or of receiving other call treatment (for example, queue to split, if call vectoring is enabled).

Call Prompting is administered using a set of specialized Call Vector commands. Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for detailed information on the Call Prompting and Call Vector features.

Note: If a vector is to be used with BRI sets, then it is recommended that either of the following steps be executed before collecting digits: a) an announcement step OR b) "wait time 2 sec with ringback."

Administration

To implement this feature, the following form(s) or section(s) of forms must be completed. Note that the Vector (Basic) and/or Vector (Prompting) options must be enabled on the System-Parameters Customer-Options form before associated Call Vector forms and fields on forms can be administered.

Form	Field	Form Instructions (Page #)
Vector Directory Number	All	6-222
Hunt Groups	Vector	6-160
Call Vector	All	6-61
Station (multi-appearance)	Button/Feature Button Assignments - callr-info	6-245
Attendant Console	Feature Button Assignments -callr-info	6-32

- **Vector Directory Number Form**— Complete a VDN form for each Call Vector to be defined. Up to 500 VDNs may be administered in the System.
- **Hunt Group Form**— Enter “y” (yes) in the Vector field in each Hunt Group and Split (that is, ACD Hunt Group) to be controlled.
- **Call Vector Form**— Complete a Call Vector form for each Call Vector to be defined. 256 Call Vector forms are available for administration in the System.
- **Station Form**— Assign Caller Information (callr-info) buttons to multi-appearance voice terminals equipped with a display, as desired.
- **Attendant Console Form**— Assign Caller Information (callr-info) buttons to attendant consoles as required.

Hardware Requirements

The announcement capabilities of the Call Prompting feature will require either:

- A TN750 Integrated Announcement circuit pack
- or
- An external announcement facility (analog announcements). Note that each analog announcement requires a port on a TN742, TN746B, or TN769 Analog Line circuit pack.

The TN744 Call Classifier circuit pack is required to provide Touch-Tone Receivers (TTRs) for the Call Prompting feature. Each TN744 provides eight touch tone receivers. Up to a maximum of 10 TN744s are allowed in the System. Note that the TN744s cannot be used as general TTRs. At least one TN748C must be installed for normal call processing and maintenance-related features.

Call Vectoring

Provides a flexible way to process network and internal calls. Call Vectoring is used to control the type of call processing an incoming network or internal call receives. Vectoring allows calls to be directed to on-premises or off-premises destinations, to a hunt group or split, or to a treatment such as announcement, forced disconnect, forced busy, or delay.

Optional capabilities also exist for collecting digits from the user, routing calls to a destination specified by those digits and/or doing conditional processing according to those digits (see Call Prompting feature).

Note: If a vector is to be used with BRI sets, then it is recommended that either of the following steps be executed before collecting digits: a) an announcement step OR b) "wait time 2 sec with ringback."

A vector step may also request routing instructions from an adjunct. In addition, the Lookahead Interflow feature makes use of Call Vectoring for its operation.

Vectors are accessed by VDNs. VDN maps to one vector. However, several VDNs may map to the same vector. VDNs are "soft" switch extension numbers that **are not** assigned to a physical equipment location. The VDN determines which vector is activated when a call terminates to the VDN. When a call enters a Call Vector, its routing and treatment will be determined by up to a maximum of 15 vector commands in each vector. Vectors can be linked for a maximum of 1000 commands.

Note: It is not recommended that you change a vector while it is processing calls since calls already in the vector could experience problems. Instead, add a new vector and change the VDN to point to the new vector.

An answering party's display-type terminal, for example, can be used to display information (that is, Parts Dept) associated with the VDN and, thus, the user can respond to a call with knowledge of the called number. This operation provides a "Dialed Number Identification Service."

The four primary ways that a VDN can be used to access a vector areas follows:

- **Internal Call**— Dialing the VDN extension from a station
- **CO Trunk**— A CO trunk may be mapped to a VDN (that is, as an incoming destination or night service extension)
- **Non-CO Trunk**— An incoming DID call may be routed to a VDN extension
- **Listed Directory Numbers (LDN)**— A VDN may be a night destination for a LDN.

Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description* 555-230-201, for a complete description of Call Vectoring and associated features.

Administration

The Vectoring (Basic) and/or Vectoring (Prompting) options must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or section(s) of the forms must be completed:

Form	Field	Form Instructions (Page #)
Vector Directory Number	All	6-222
Hunt Group	Vector	6-160
Call Vector	All	6-61
Trunk Groups		
Access	Incoming Destination	5-98
APLT	Night Service	5-112
CO	Trunk Member (Night)	5-123
DID		5-156
DMI		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tie		5-247
Tandem		5-232
WATS		5-264
Feature-Related System Parameters	Music-On-Hold	6-133

- **Vector Directory Number Form**— Complete a VDN form for each Call Vector to be defined. Up to 500 VDNs and 256 Call Vectors may be administered in the System.
- **Hunt Group Form**— Enter “y” (yes) in the Vector field in each Hunt Group and Split (that is, ACD Hunt Group) to be vector controlled.
- **Call Vector Form**— Complete a Call Vector form for each Call Vector to be defined. Up to 256 Call Vectors may be administered in the System.
- **Trunk Group Forms**— Incoming Destination, Night Service, and Trunk Member Night fields may be directed to a VDN extension. Administer as required.
- **Feature-Related System Parameters Form**— Enter a port number for Music-On-Hold field. This is required for the “Wait With Music” Call Vector command.

Hardware Requirements

The announcement capabilities of the Call Vectoring feature will require either:

- A TN750 Integrated Announcement circuit pack
- or
- An external announcement facility (analog announcements). Note that each analog announcement requires a port on a TN742, TN746B, or TN769 Analog Line circuit pack.
Music source connected to a port on a TN763C Auxiliary Trunk circuit pack.

Call Waiting Termination

Provides for calls to busy single-line voice terminals to wait and sends a distinctive call waiting tone to the called party.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (single-line)	Call Waiting Indication	6-260

- Station Forms—Complete Call Waiting Indication field for single-line voice terminals.

Hardware Requirements

None.

Calling Party Number/Billing Number

Provides for the transmission of CPN/BN from the System to an ISDN Gateway adjunct (that is, 3B2 processor) which in turn passes the information to a host or to an ICM adjunct (that is, CONVERSANT voice system) for ICM applications. The information is subsequently available for display on associated ACD agent terminals.

The CPN is the calling party's telephone number and BN is the billing number of the calling party. The CPN/BN may also contain international country codes, where applicable.

Administration—Using ASAI Link for ICM Applications

Refer to the ICM feature for associated administration information.

Administration—Using bx.25 for ISDN Gateway Adjunct Applications

The ISDN PRI and CPN/BN features must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

All ISDN-PRI and ACD related forms must be administered as described in the ISDN-PRI and ACD coverage provided elsewhere in this chapter.

Figure 4-6 shows the switch connections to the ISDN-PRI Gateway.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
ISDN-PRI Trunk Group	All fields including "Per Call CPN/BN"	5-195
MPDM/MTDM Data Module	All	6-105
Interface Links	All	6-175
Processor Interface Data Module	All	6-112
Processor Channel Assignment	All (for one link)	6-194

- ISDN-PRI Trunk Group—Assign all fields as required to provide an ISDN-PRI between the System and a far-end node. In the Per Call CPN/BN field, enter either "cpn-only," "cpn-pref," "bn-only," or "bn-pref" as required. The corresponding information will be sent with a call offered event report to the adjunct. If the field is blank, no CPN/BN information is sent to the adjunct.

- MPDM/MTDM Forms—Complete all fields. This provides the ISDN-Gateway data link (via Digital Line circuit pack port) to the switch.

Note: Instead of administering an MPDM form, an OCM data link on a nonduplicated system may be directly connected to the Processor Interface jack on the back of the Control Carrier (if not already in use) instead of via the MPDM and a port on a Digital Line circuit pack. The Processor Interface jack utilizes Interface Link 01 which is administered using the Processor Interface Data Module form. It is advised not to use the Processor Interface jack in those systems that have a duplicated control carrier. The connection is not designed so that it can be driven by either switch processing element in the duplicated system.

- Interface Links Form—All (for one data link). Assign "DCE" in the DTE/DCE field. Note that when administering the Interface Links form using a **change communications-interface links** command, all fields may be initially entered except the Enable field. After completing and administering the Processor Channel Assignment form, recall the interface Links form using the **change** command and then enable the appropriate links by entering "y" in the Enable fields.
- Processor Interface Data Module Form—All (for one data link).
- Processor Channel Assignment Form—All (for one data link). Enter "OCM" in the App field. The OCM application is used to support either the CPN/BN and an associated ISDN Gateway interface or an interface to an OCM adjunct. Only one interface (that is, ISDN Gateway or OCM) can be supported in the System.

Hardware Requirements

Refer to the "Inbound Call Management" section for associated hardware requirements.

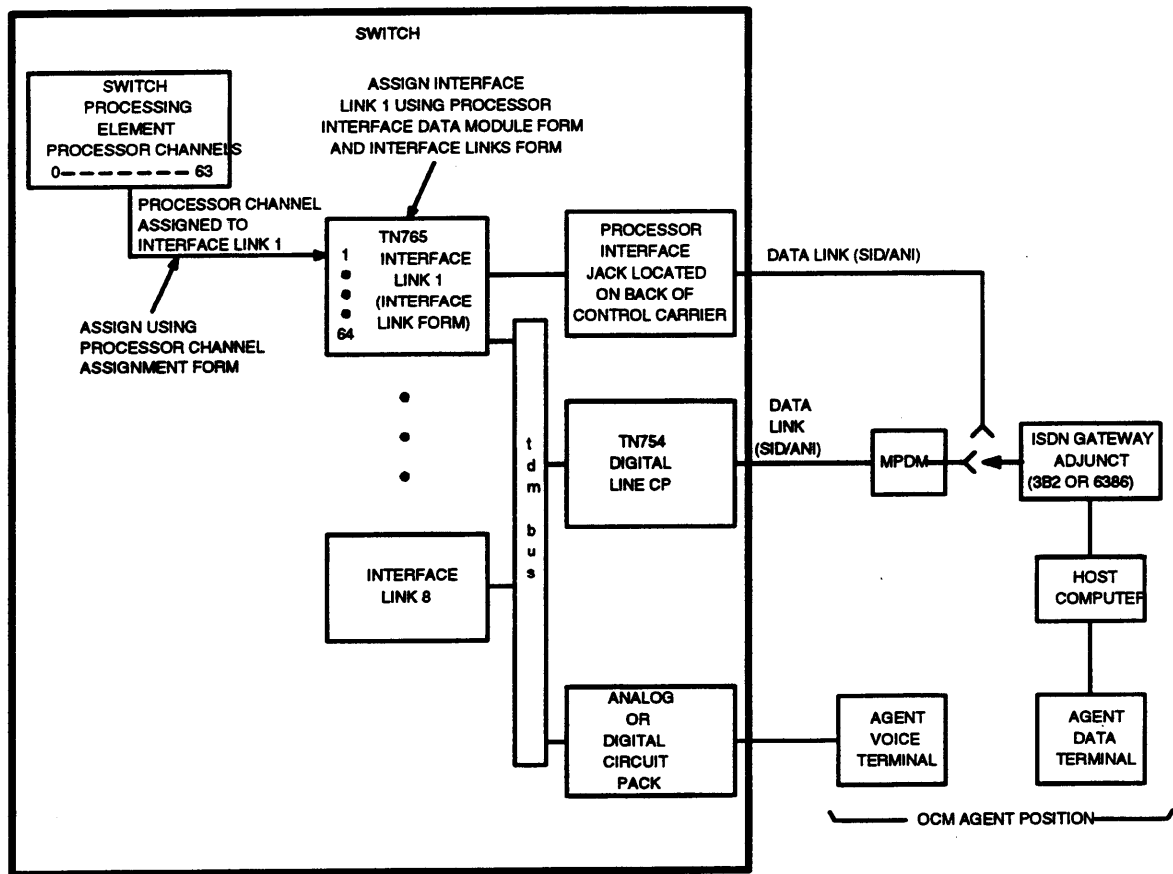


FIGURE 4-6. Typical ISDN Gateway Interface to the System

CallVisor Adjunct-Switch Application Interface

Note: For more detailed information on CallVisor™ ASAI, refer to *DEFINITY® Communications System CallVisor™ Adjunct-Switch Application Interface (ASAI) Protocol Reference*, 555-230-221 and *DEFINITY® Communications System CallVisor™ Adjunct-Switch Application Interface (ASAI) Technical Reference*, 555-230-220.

Supports an ISDN-BRI link between the switch and associated adjuncts (see Figure 4-1). The feature provides "building blocks" for implementing adjunct-based features such as Inbound Call Management (ICM). Specifically, the interface allows adjunct applications to control calls and access call event reports and switch features.

The following functionality between associated adjunct and the switch is supported:

- The adjunct can make requests to the switch for call originations from local endpoints and to drop calls. With each call, call progress information and event reporting is transmitted across the interface.
- The adjunct can manipulate active calls in which the adjunct is not a party on the calls (that is, 3rd party). It can place calls on hold, reconnect calls, transfer calls, conference calls, and drop selected parties from a call.
- The adjunct can request information about incoming calls to ACD splits (event notification).
- The adjunct has the ability to activate certain switch features.
- The adjunct can query the switch for information associated with a particular item.
- The adjunct can make routing decisions. The adjunct can provide routing information for incoming calls to Vector Directory Number (VDNs) (Adjunct Routing Group).

When the System is configured with an EPN (with or without duplication), it is recommended that the CallVisor ASAI resources be located in the switch's PPN.

Note: For CallVisor ASAI applications, it is recommended that the number of Dialed Number Identification Service (DNIS) digits from the network to which a CallVisor ASAI customer subscribes match the PBX dialplan regardless of the type of facilities used (that is, PRI or non-PRI). This will insure that network-provided DNIS and PBX-provided DNIS (for internal calls) have the same length.

On the PBX side, it is also recommended that, for non-isdn trunks, no digit manipulation be performed via administration. If such digit manipulation is performed, the DNIS provided to a CallVisor ASAI customer will be the number after the PBX has manipulated the digits. In this case, if the application needs to know the true DNIS, it would also have to know the algorithm applied by the PBX in manipulating the digits.

Attendant-specific Button Operation

Attendant-specific buttons and features can cause calls to go through states different from those for station users. The following list shows which events are sent when an attendant uses buttons that are specification to an attendant console:

- **[HOLD]**
If an individual attendant presses the **[HOLD]** and the call is monitored or controlled, the "hold" event will be sent to the corresponding association.
- **[CALL~APPEARANCE]**
If an individual attendant has a call on hold and the call is controlled and/or monitored, then the "reconnect" event will be sent on the corresponding associations.
- **[START]**
If a call is present at an attendant and the call is controlled and/or monitored, and the attendant presses **[START]**, then the call will be put on hold and a "hold" event will be sent on the corresponding associations.
- **[CANCEL]**
If a call is on hold at the attendant and the attendant presses **[START]**, putting the previous call on hold, and then either dials a number and then presses **[CANCEL]** or presses **[CANCEL]** right away, the call that was originally put on hold will be reconnected and a "reconnect" event will be sent to the association monitoring and/or controlling the call.
- **[RELEASE]**
If only one call is active and the attendant presses **[RELEASE]**, the call will be dropped and the "dropped" event will be sent to the association monitoring and/or controlling the calls. If two calls are active at the attendant and the attendant then presses **[RELEASE]**, the calls will be transferred away from the attendant and a "transfer" event will be sent to the association monitoring and/or controlling the calls.
- **[SPLIT]**
If two calls are active at the attendant and the attendant presses **[SPLIT]**, the calls will be conference at the attendant and a "conference" event will be sent to the associations controlling and/or monitoring the calls.

CallVisor ASAI Feature Administration

To use any CallVisor ASAI capability, the ASAI Interface option must first be enabled on the System-Parameters Customer-Options form. This action causes Page 2 of the form ("ASAI Capability Groups") to be displayed (see below).

change system-parameters customer-options

ASAI CAPABILITY GROUPS

Adjunct Call Control Group? y
Adjunct Routing Group? y
Domain Control Group? y
Event Notification Group? y
Request Feature Group? y
Set Value Group? y

Page 2 of 2

The above capabilities are defaulted to "y," but can be disabled at the time of system installation. A brief explanation of each of the capability groups follows:

- Adjunct Call Control Group—Allows the associated adjunct to invoke Third Party Call Control capabilities, such as Third Party Selective Hold, Third Party Reconnect, Third Party Merge, etc., that can be used in either of the Third Party Call Control cluster sub-sets: Call Control and Domain Control. These capabilities enable the adjunct to place, monitor, control, and end calls as they move through the switch.
- Adjunct Routing Group—Allows the associated adjunct to provide adjunct routing information to the switch for incoming calls.
- Domain Control Group—Allows an adjunct to control calls and receive event reports for station sets and receive logout event reports for agents in a given ACD split.
- Event Notification Group—Allows the associated adjunct to request incoming call notification and enables the switch to send event reports about such calls.
- Request Feature Group—Allows the associated adjunct to request features (such as "change work modes," "login," and "logout") and other station features (SAC, FMD).
- Set Value Group—Allows the adjunct to request status changes for Message Waiting lamps (that is, control the on/off state of the lamps).

The following table shows which capabilities are automatically enabled when ASAI is enabled on the System-Parameters Customer-Options form.

TABLE 4-B. Automatically Enabled ASAI Capabilities

Capability	Adjunct Call Control Group	Adjunct Routing Group	Domain Control Group	Event Notif. Group	Request Feature Group	Set Value Group
Call Ended Capability	x					
Event Reports	x		x	x		
Agent Logout			x			
Alerting	x		x	x		
Answered	x		x			
Busy	x		x	x		
Call Ended Event (FAC message)				x		
Call Initiated			x			
Call Offered to Domain				x		
Call Redirected			x	x		
Call Conferenced	x		x	x		
Connected	x		x	x		
Cut-Through	x		x	x		
Denial/Reorder	x		x	x		
Dropped	x		x	x		
Hold	x		x	x		
Queued	x		x	x		
Reconnected	x		x	x		
Call Transferred	x		x	x		
Trunk Seized	x		x	x		
Request Feature					x	
Notification Request				x		
Notification Cancel				x		
Notification Ended				x		
Route End		x				
Route Request		x				
Route Select		x				
Set Value						x
Stop Call Notification				x		

TABLE 4-B (continued).
Automatically Enabled ASAI Capabilities

Capability	Adjunct Call Control Group	Adjunct Routing Group	Domain Control Group	Event Notif. Group	Request Feature Group	Set Value Group
Third Party Answer			X			
Third Party Auto Dial			X			
Third Party Call Ended	X					
Third Party Clear Call	X					
Third Party Domain Control			X			
Third Party Domain Control Ended			X			
Third Party Make Call	X					
Third Party Make Call Proceed	X					
Third Party Merge	X		X			
Third Party Reconnect	X		X			
Third Party Relinquish Control	X		X	X		
Third Party Selective Hold	X		X			
Third Party Selective Drop	X		X			
Third Party Take Control	X			X		

Note: By enabling the ASAI option(s) on Page 1 of the form, the following capabilities are automatically enabled as well, regardless of the groups selected on Page 2: Value Query (includes Response Continued Capability), Abort, Heart Beat, Restart Procedure, Suspend/Resume Alarm.

The capabilities shown here correspond to the operation values given in *DEFINITY® Communications System CallVisor™ Adjunct-Switch Application Interface (ASAI) Protocol Reference*, 555-230-221.

For ASAI adjuncts, an alarm severity option can be assigned via the "Set Options" command to each of the following categories:

- Major on-board ASAI adjunct alarms
- Major off-board ASAI adjunct alarms
- Minor on-board ASAI adjunct alarms
- Minor off-board ASAI adjunct alarms

The "Set Options" command is considered to be a maintenance command. Therefore, for more information on this command, refer to *DEFINITY® Communications System Generic 1 and Generic 3i Maintenance*, 555-204-105.

Note: The Hunt Group, Vector, Special Information Tones, Class of Service, and Trunk Group forms may also require administration when implementing CallVisor ASAI.

Note that the following provides information on assigning an ASAI link only. Refer to specific adjunct feature coverage (that is, Inbound Call Management) for associated adjunct implementation instructions.

ASAI Link Administration

Currently, this interface must be assigned when implementing an adjunct ICM application. Note that the System can have either the ICM feature (using the CallVisor™ ASAI) or a vendor-supplied CPN/BN feature, but not both.

The Packet Bus option is automatically enabled on the Maintenance-Related System Parameters form before ASAI forms and ASAI fields on non-ASAI forms can be administered. Details regarding the use of this form are provided in *DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test*, 555-230-104.

To implement the ASAI link, the following form must be completed:

Form	Field	Form Instructions (Page #)
Station	Extension Type XID Fixed TEI TEI MIM Support CRV Length	6-68

Hardware Requirements

A port on a TN556 ISDN-BRI circuit pack (12 ports) is required for each ASAI link to be assigned per switch. Up to eight ports (maximum) may be assigned for ASAI interfaces. The remainder may be used for BRI voice ports. ASAI interfaces may be distributed on multiple TN556 ISDN-BRI circuit packs.

Note: If a TN556 ISDN-BRI circuit pack is in an EPN, then the TN570 EI circuit pack must be used as the expansion interface. The TN776 EI may not be used in this case.

The TN778 Packet Control circuit pack is required for CallVisor ASAI applications. As noted above, the Packet Bus option must be enabled on the Maintenance-Related System Parameters form.

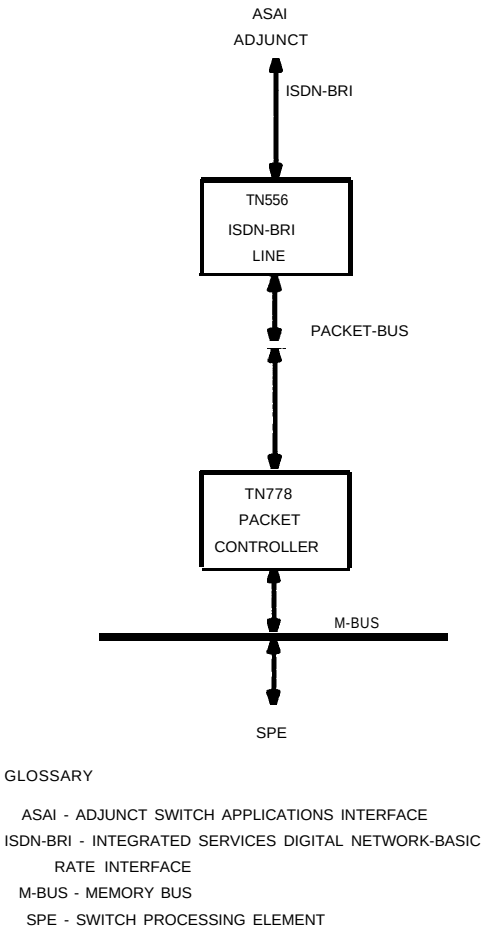


FIGURE 4-7. ASAI Switch Interface Link

Central Office Trunk Group

A Central Office (CO) Trunk Group provides access from the System to the public network through the local CO.

Administration

To assign a CO Trunk Group, the following forms must be completed.

Form	Field	Form Instructions (Page #)
Central Office Trunk Group	All	5-123
Digit Absorption	All	6-125
DS1	All	5-65

- CO Trunk Group Form—Complete all fields as required.
- Digit Absorption Form—If required, complete this form when the central office is a step-by-step office. The Digit Absorption List field on the CO trunk group form must reference the Digit Absorption List Number entered on the form.
- DS1 circuit pack form—Complete all fields as required.

Hardware Requirements

A port on a TN747B Central Office Trunk or TN767 DS1 Interface circuit pack is required for each CO trunk to be assigned. A TN747B provides eight ports and a TN767 provides 24 ports.

Centralized Attendant Service

Allows services performed by attendants in a private network of switching systems to be concentrated at a central, or main, location. Each branch in a CAS has its own LDN or other type of access from the public network. Incoming trunk calls to the branch, as well as attendant-seeking voice terminal calls, are routed to the centralized attendants over RLTs.

Administration

The CAS Branch or the CAS Main options (depending on your location) must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Feature Button Assignments -cas-backup -trunk-name	6-32
Console Parameters	CAS RLT Trunk Group Number CAS Back-Up Ext Timed Reminder on Hold Return Call Timeout (see)	6-79
Station (multi-appearance)	Button/Feature Button Assignments -cas-backup -flash -trunk name -night serv	6-245
Release Link Trunk Group	All	5-221
Feature Access Codes	CAS Remote Hold Access Code	6-127

- Attendant Console Form—Assign "cas-backup" to a designated button lamp if an attendant console is available at a branch. Assign "trunk-name" feature button to identify the RLT name.

- Console Parameters Form—Verify "CAS" is administered as either main or branch and RLT Trunk Number and CAS Back-Up Ext fields are completed as required. Administer the Timed Reminder on Hold and Return Call time-out (sec) the same on all switches. Note that the CAS and IAS (Inter PBX Attendant service) Branch fields cannot both be administered as "y."
- Station Forms—Assign "cas backup" to a designated button lamp (an attendant console will probably not be available at a branch). It is a good idea to assign a "night-serv" button to one station when operating without an attendant console. Assign "flash" and "trunk-name" feature buttons as required to stations that may be handling CAS calls. Administer "trunk name" buttons to display-equipped voice terminals only.
- Release Link Trunk Group Form—Complete all fields. Enter "incoming" in the Direction field if this is a CAS main location or enter "outgoing" if this is a CAS branch location. Assign Queue Length field to other than 0 when the direction field is outgoing.
- Feature Access Codes Form—Complete the CAS Remote Hold Access Code field. Administer the same code on all switches.

Hardware Requirements

Requires a TN760B Tie Trunk circuit pack or TN722B or TN767 DS1 circuit pack to assign a Release Link Trunk Group.

Screens 4-14 and 4-15 show typical Console Parameters and RLT Trunk Group forms, respectively, for a CAS Main location. Screens 4-16 and 4-17 show typical Console Parameters and RLT Trunk Group forms, respectively, for a CAS Branch location.

Page 1 of 1

CONSOLE PARAMETERS

COS : <u>1</u>	COR : <u>1</u>
Time Reminder on Hold (sec): <u>60</u>	Return Call Timeout (sec): <u>60</u>
Calls In Queue Warning: <u>2</u>	Time In Queue Warning (sec): <u> </u>
Ext Alert Port (TAAS): <u> </u>	Attendant Lockout? <u>n</u>
CAS: <u>main</u>	RLT Trunk Group No.: <u> </u>
CAS Back-Up Ext.: <u> </u>	Night Service Act. Ext.: <u> </u>
IAS (Branch)? <u>n</u>	IAS Tie Trunk Group No.: <u> </u>
IAS Att. Access Code: <u> </u>	DID-LDN Only to LDN Night Ext? <u>n</u>

ABBREVIATED DIALING

List1: <u> </u>	List2: <u> </u>	List3: <u> </u>

COMMON SHARED EXTENSIONS

Starting Extension: <u>1900</u>	Count: <u>4</u>

ASSIGNED MEMBERS (Installed attendant console types)

1: <u>principal</u>	5: <u> </u>
2: <u>day-only</u>	6: <u> </u>
3: <u> </u>	7: <u> </u>
4: <u> </u>	

SCREEN 4-14. Typical CAS Main Console Parameters Form

TRUNK GROUP		Page 1 of 9
Group Number: <u>6</u>	Group Type: <u>rlt</u>	SMDR Reports? <u>y</u>
Group Name: <u>RLT BRANCH</u>	COR: <u>1</u>	TAC: <u>74</u>
Direction: <u>incoming</u>	Outgoing Display? <u>n</u>	
	Busy Threshold: <u>99</u>	Night Service: <u>1234</u>
		Incoming Destination: <u>@</u>
TRUNK PARAMETERS		
Trunk Type (in/out): <u>delay/delay</u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Answer Supervision Timeout? <u>__</u>		

SCREEN 4-15. Typical CAS Main Release Link Trunk Group Form

CONSOLE PARAMETERS

COS: 1COR: 1

Time Reminder on Hold (sec): <u>60</u>	Return Call Timeout (see): <u>60</u>
Calls In Queue Warning: <u>2</u>	Time In Queue Warning (sec): <u> </u>
Ext Alert Port (TAAS): <u> </u>	Attendant Lockout? <u>n</u>
CAS: <u>branch</u>	RLT Trunk Group No.: <u>10</u>
CAS Back-Up Ext.: <u>5573</u>	Night Service Act. Ext.: <u> </u>
IAS (Branch)? <u>n</u>	IAS Tie Trunk Group No.: <u> </u>
IAS Att. Access Code: <u> </u>	DID-LDN Only to LDN Night Ext? <u>n</u>

ABBREVIATED DIALING

List1: List2: List3:

COMMON SHARED EXTENSIONS

Starting Extension: 5600 Count: 4

ASSIGNED MEMBERS (Installed attendant console types)

1: <u>principal</u>	5: <u> </u>
2: <u> </u>	6: <u> </u>
3: <u> </u>	7: <u> </u>
4: <u> </u>	

SCREEN 4-16. Typical CAS Branch Console Parameters Form

TRUNK GROUP		Page 1 of 9
Group Number: <u>10</u>	Group Type: <u>rlt</u>	SMDR Reports? <u>n</u>
Group Name: <u>OPERATOR</u>	COR: <u>1</u>	TAC: <u>80</u>
Direction: <u>outgoing</u>	Outgoing Display? <u>y</u>	
Busy Threshold: <u>60</u>		
Queue Length: <u>10</u>		
TRUNK PARAMETERS		
Trunk Type (in/out): <u>delay/delay</u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Answer Supervision Timeout? <u>_</u>		

SCREEN 4-17. Typical CAS Branch Release Link Trunk Group Form

Class of Restriction

All System users have an assigned COR to define their calling privileges. Restrictions can be assigned to facilities as listed in the table below. The COR specifies up to 64 different classes of call origination and termination privileges. Systems may have only a single COR, one with no restrictions, or may have as many CORs (up to 64) as necessary to effect the desired restrictions. A unique COR must be defined for each combination of FRLs, calling party restrictions, called party restrictions, miscellaneous restrictions, CCSA/EPSCS off-network restrictions, and access to FACs.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	All	6-72
Attendant Console	COR	6-32
Authorization Codes	COR	6-51
Console Parameters	COR	6-79
Hunt Groups	COR	6-160
Loudspeaker Paging and Code Calling Access	COR (1-9, all)	6-183
MPDM/MTDM Data Module	COR	6-105
NetCon Data Module	COR	6-109
Processor Interface Data Module	COR	6-112
Recorded Announcement Data Module	COR	6-115
Station	COR	6-245
Remote Access	COR (Barrier Code)	6-203
Terminating Extension Group	COR	6-214
Trunk Groups	COR	5-92
Vector Directory Number	COR	6-222

- COR Form—Complete appropriate fields.
- Complete the "COR" fields for the following forms:
 - Attendant Console
 - Authorization Codes
 - Console Parameters
 - Data Modules (includes MPDM, MTDM, Recorded Announcement, Data Line, NetCon, and Processor Interface data modules)
 - Hunt Groups
 - DDC Group
 - UCD Group
 - ACD Split
 - Loudspeaker Paging Access and Code Calling Access
 - Remote Access (per barrier code)
 - Station
 - Terminating Extension Group
 - Trunk Groups
 - Vector Directory Number

Class of Restriction Guidelines and Examples

The examples which follow illustrate some of the practical aspects of assigning CORs. These are, however, only examples. In reality, each System must be administered to meet its individual needs.

Example Using Miscellaneous Restrictions

As an illustration of miscellaneous restrictions, assume a System installation provides the following:

- Central office trunks
- WATS
- FX trunks
- Data modules
- Attendant service
- Voice terminals
- DID trunks
- Remote Access

In an unrestricted environment, each of the preceding facilities could have the same COR. However, suppose the following requirements exist:

- Attendants cannot make data calls.
- Remote Access can be used for data calls only.
- DID cannot be used for data calls except through Remote Access. (A dedicated Remote Access trunk group is not required, although one or more could be provided. This example assumes all Remote Access is via DID.)
- There are three classes of voice terminals:
 - Those that can call anywhere, anytime
 - Those that can place local central office and in-house calls only
 - Those that can place local central office, FX, and in-house calls only

To implement the preceding requirements, a COR must be assigned to each facility or group of facilities. For simplicity, each can have a unique COR. The CORs are arbitrarily assigned as follows:

- COR 30—Local CO trunks
- COR 31—WATS trunks
- COR 32—FX trunks
- COR 33—Data modules
- COR 34—Attendant group
- COR 35—Unrestricted voice terminals
- COR 36—Voice terminals that can place in-house and local CO calls only (no FX or WATS calls)
- COR 37—Voice terminals that can place in-house, local CO and FX calls only (no WATS calls)
- COR 33—DID trunk group
- COR 39—One of the remote access barrier codes (can be up to 10)

With the CORs defined, it should be individually determined which CORs cannot call other CORs. This is done as follows:

- COR 30 (local central office trunks)—No restrictions were specified for these trunks. The default values on the screen form are sufficient. No action is required, except to specify a COR number of 30.
- COR 31 (WATS)—CORS that cannot use WATS are specified as they are encountered. WATS itself is an outgoing service without any calling capabilities. Thus, Miscellaneous Restrictions are not specified on this form. The Calling Party Restriction should be "none" (although this restriction does not really have any meaning for an outgoing facility). Similarly, the Called Party Restriction applies to facilities capable of answering a call. Since this is not the case with WATS, "none" should be specified. Again, the default values are sufficient, so only the COR number needs to be specified.

- COR 32 (FX)—According to the requirements for this example, no restrictions apply. Reasons are the same as for WATS. Only the COR number needs to be specified.
- COR 33 (data modules)—No restrictions apply for reasons similar to the reasons why no restrictions were assigned for WATS. Only the COR number needs to be specified.
- COR 34 (attendant group)—The attendant group cannot call COR 33 (data modules). Specify an "n" beside COR 33 in the Calling Permission field. Specify 34 in the COR Number field.
- COR 35 (unrestricted voice terminals)—since no restrictions were specified, only the COR number needs to be entered.
- COR 36 (no FX or WATS calls)—This COR cannot call COR 32 (FX) or COR 31 (WATS). Specify an "n" beside COR 32 and 31 in the Calling Permission field. Specify 36 in the COR Number field.
- COR 37 (no WATS calls)—This COR cannot call COR 31 (WATS). Specify an "n" beside COR 31 in the Calling Permission field. Specify 37 in the COR Number field.
- COR 38 (DID)—This COR cannot call COR 33 (data modules). Specify "n" beside COR 33 in the Calling Permission field. Enter 38 in the COR Number field.
- COR 39 (Remote Access barrier code)—This COR can be used for data calls only. Thus, this COR can call COR 33, but not CORs 30 (local CO), 31 (WATS), 32 (FX), 34 (attendant group), 35, 36, or 37 (voice terminals). Specify an "n" beside CORs 30, 31, 32, 34, 35, 36, and 37 in the Calling Permission field. Enter 39 in the COR Number field. [The CORs listed in the Calling Permission field can be viewed as terminating or screening CORs that can or cannot be called by the originating COR. Since COR 38 (DID) is neither a terminating nor a screening COR, it does not have to be considered when assigning the barrier code COR.]

Example Using Calling Party Restrictions, Called Party Restrictions, and Miscellaneous Restrictions

To illustrate the use of both Calling and Called Party restrictions, Miscellaneous restrictions, assume a System installation provides the following:

- CO (outgoing)
- WATS
- FX trunks (outgoing)
- Voice terminals
- Data modules
- TEG
- Loudspeaker Paging

Suppose that the following requirements exist:

- Only the attendant can access loudspeaker paging.
- TEG can only accept calls from internal voice terminals

- There are six classes of voice terminals:
 - Those that are toll restricted
 - Those that cannot call outside to a public network (outward restricted)
 - Those that can receive calls only from an attendant
 - Those that can call anywhere, anytime
 - Those that cannot place FX or WATS calls
 - Those that cannot place WATS calls

To implement the preceding requirements, a COR must be assigned to each facility or group of facilities. For simplicity, each can have a unique COR. The CORs are arbitrarily assigned as follows:

- COR 40—Local central office trunks
- COR 41—WATS trunks
- COR 42—FX trunks
- COR 43—Attendant group
- COR 44—Data modules
- COR 45—TEG
- COR 46—Loudspeaker Paging Access Zones
- COR 47—Unrestricted voice terminals
- COR 48—Voice terminals that are toll restricted
- COR 49—Voice terminals that are outward restricted
- COR 50—Voice terminals that can only receive calls from an attendant
- COR 51—Voice terminals that cannot place FX or WATS calls
- COR 52—Voice terminals that cannot place WATS calls

With the CORs defined, it should be determined individually which CORs cannot call other CORs. This is done as follows:

- COR 40 (local CO trunks)—Restrictions that prohibit access to this COR are assigned when the originating CORs are considered. Only the COR number has to be specified on this form.
- COR 41 (WATS)—Only the COR number needs to be specified, this is the same case as described in the previous configuration example.
- COR 42 (FX)—Again, only the COR number needs to be specified.
- COR 43 (attendant group)—No restrictions were stated, so only the COR number needs to be specified.
- COR 44 (data modules)—No restrictions were stated, so only the COR number needs to be specified.

- COR 45 (Terminating Extension Group)—This COR can receive internal voice terminal-originated calls only. Since no tie trunks are specified for this example, the Inward Restriction feature can provide the desired restriction. Specify "inward" as the Called Party Restriction. If dial repeating tie trunks are provided, Miscellaneous Restrictions could be used to deny trunk access to the group. Also, specify 45 as the COR number.
- COR 46 (Loudspeaker Paging Access zones)—Since this COR can be accessed by an attendant only, the Manual Terminating Line feature can provide the restriction. Specify "manual" as the Called Party Restriction. Specify 46 as the COR number.
- COR 47 (unrestricted voice terminals)—No restrictions were stated, so only the COR number needs to be specified.
- COR 48 (toll restricted voice terminals)—specify "toll" as the Calling Party Restriction. Specify 48 as the COR number.
- COR 49 (outward restricted voice terminals)—Specify "outward" as the Calling Party Restriction. Specify 49 as the COR number.
- COR 50 (voice terminals that can only receive calls from an attendant)—specify "manual" as the Called Party Restriction. Specify 50 as the COR number.
- COR 51 (voice terminals that cannot place WATS or FX calls)—None of the Calling Party Restrictions uniquely prohibit WATS and FX calls, so Miscellaneous Restrictions are used. Enter an "n" beside COR 41 (WATS) and COR 42 (FX) in the Calling Permission field. Leave the Calling Party Restriction as "none" and specify 51 as the COR number.
- COR 52 (voice terminals that cannot place WATS calls)—Enter an "n" beside COR 41 (WATS) in the Calling Permission field. Leave the Calling Party Restriction as "none" and specify 52 as the COR number.

Another method to determine COR assignment is to consider the restrictions to be assigned.

This method is probably more difficult to use, but it minimizes the number of CORs established. This method requires nine CORs to effect the same restrictions as 13 CORs with the previous method.

The requirements given for this example are as follows:

- Only the attendant can access loudspeaker paging.
- Terminating Extension Groups can only accept calls from internal voice terminals.
- The six classes of voice terminals are:
 - Those that are toll restricted
 - Those that cannot call outside to a public network (outward restricted)
 - Those that can receive calls only from an attendant
 - Those that can call anywhere, anytime
 - Those that cannot place FX or WATS calls
 - Those that cannot place WATS calls

Assignments for these requirements could be made as follows:

- COR 20—Manual Terminating Line Restriction
- COR 21—Inward Restriction
- COR 22—Toll Restriction (that is, "tac-toll" or "all-toll")
- COR 23—Outward Restriction

Note: A new Manual Terminating Line Restriction for voice terminals was not established. COR 20, above, can be assigned.

- COR 24—Unrestricted
- COR 25—COR for WATS
- COR 26—COR for FX
- COR 27—Provides Miscellaneous Restrictions for WATS and FX. Enter an "n" beside COR 25 and COR 26 on the form for COR 27.
- COR 28—Provides Miscellaneous Restriction for WATS. Enter an "n" beside COR 25 on the form for COR 28.

Now assign the appropriate COR to each physical or screening facility:

- CO trunks—COR 24 (unrestricted)
- WATS—OR 25 (WATS COR)
- FX—COR 26 (FX COR)
- Attendant group—COR 24 (unrestricted)
- Voice terminals—COR 22 (toll—"tac-toll" or "all-toll"), COR 23 (outward), COR 20 (manual), COR 24 (unrestricted), COR 27 (WATS and FX miscellaneous), or COR 28 (WATS miscellaneous), as required.
- Data Modules—COR 24 (unrestricted)
- Terminating Extension Group—COR 21 (inward)
- Loudspeaker Paging trunks—COR 20 (manual)

Example Using ARS/AAR Facilities Restriction Level (FRL) for Control of Call Routing

Establish a group of users who must dial an authorization code in order to make outside calls. The client has ARS and the Authorization Codes feature. The forms and fields are administered as follows:

1. Feature-Related System Parameter Features Form

Field	Enter
- Authorization Codes Enabled	y
- Authorization Code Length	7
- Authorization Code Cancellation Symbol	1
- Attendant Timeout Flag	n

2. Station Form

Assign COR = 1 for all unrestricted users and COR = 49 for restricted users who must dial an authorization code to make outside calls.

3. Authorization-Codes Form

Assign the restricted users a replacement COR = 1 and an authorization code the same as their 7-digit phone number.

4. COR Form

Assign/change originating FRLs for restricted and unrestricted users. Assign an originating FRL of 7 to users with a COR of 1 and an originating FRL of 0 to users with a COR of 49.

5. AAR/ARS Route Pattern Form

For route pattern 1, assign trunk group 40 (CO) as the first choice route with a route FRL = 1, NPA = 201, and Prefix Mark = 1 (that is, dialing 1 is required hereto indicate a toll call). Assign first, second, and third choice routes as follows:

Grp No	FRL	NPA	Prefix Mark	Toll List	No. Del Digits	Inserted Digits
40	1	201	1			
2	3	201	1			
32	3	201	1			9

For this example, trunk group 40 is a CO trunk, trunk group 2 is WATS, and trunk group 32 is a tie trunk to the System 85.

When a caller dials the ARS access code to call out, the FRL of the originating facility is compared with the FRL of the available outgoing facility. If the FRL of the originating facility is less than the FRL of the trunk group, the restricted user will be prompted (via recall dial tone) to enter an authorization code. After the authorization code is entered, the call is routed to the CO for completion. If the FRL is insufficient to seize any trunk group in the route pattern, the user gets intercept tone.

Restricted callers will be prompted for and be required to enter an authorization code. Unrestricted users will simply dial the ARS code followed by the desired number.

Another practical application of the use of auth-codes might be to enable an unrestricted user to make a call from a restricted phone. For example, an executive could enter an authorization code which enables him to dial out from a restricted phone in the factory.

Hardware Requirements

None.

Class of Service

Defines whether or not voice terminal users may access or use the following features and functions (refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for feature descriptions).

- Automatic Callback (feature)
- Call Forwarding All Calls (feature)
- Data Privacy (feature)
- Priority Calling (feature)
- Console Permission (allows multi-appearance voice terminal users to control the same features controlled by an attendant)
- Off-Hook Alert (see Emergency Access to Attendant feature)
- Client Room (see Hospitality Services—allows use of the check-in, check-out, room change/swap, and maid status features)

Administration

The 16 possible COSs are preassigned in the System. Choose and modify the appropriate COS and assign to users as required. Types of users are listed in the following table.

Form	Field	Form Instructions (Page #)
Class of Service	All	6-77
Attendant Console	COS	6-32
Console Parameters	COS	6-79
MPDM/MTDM Data Module	COS	6-105
Processor Interface Data Module	COS	6-112
NetCon Data Module	COS	6-109
Recorded Announcement Data Module	COS	6-115
Data Line Data Module	COS	6-89
Station	COS	6-245
Remote Access	COS	6-203

Hardware Requirements

None.

Code Calling Access

Allows attendants, voice terminal users, and tie trunk users to page with coded chime signals.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Loudspeaker Paging and Code Calling Access	Code Calling IDs-(all fields)	6-183

- Loudspeaker Paging and Code Calling Access Form—Complete Code Calling fields as follows:
 - Assign Code Calling Playing Cycles (1 to 3) to indicate the number of times a code calling identification will be played.
 - Assign TN763C Auxiliary Trunk ports to each paging zone to be used.
 - Assign Code Calling TACs and CORs to each zone to be assigned (1 through 9, all).
- Assign extension numbers to Code Calling ID fields.

Hardware Requirement

Requires a port on a TN763C Auxiliary Trunk circuit pack for each of nine paging zones that can be assigned. The Code Calling Access feature shares the same ports used for loudspeaker paging.

Consult

Allows a covering user, after answering a coverage call, to call the principal (called party) for private consultation.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -consult	6-245

- Station Forms—Assign a Consult button.

Hardware Requirements

None.

Coverage Callback

Allows a covering user to leave a message for the principal (called party) to call the calling party.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -cov-cback	6-245

- Station Forms—Assign a Cover Callback (cov-cback) button.

Hardware Requirements

None.

Coverage Incoming Call Identification

Allows multi-appearance voice terminal users without a display in a Coverage Answer Group to identify an incoming call to that group.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -in-call-id (Type:_Grp:_)	6-245

- Station Forms—Assign a UCD/DDC Coverage Answer Group (in-call-id) button.

Hardware Requirements

None.

Customer-Provided Equipment (CPE) Alarm

The CPE alarm device provides an indication that a System alarm has occurred and that the System has attempted to contact a preassigned service organization about the problem. A customer-provided device, such as a lamp or bell, is used to indicate the alarm situation.

The CPE Alarm field is administered on the Maintenance-Related System-Parameters form as described in *DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test*, 555-230-104. Associated hardware requirements are also specified.

Customer-Provided Equipment (CPE) Trunk Group

The CPE Trunk Group provides for the connection of on-premises customer equipment to the System for applications such as the Recorded Telephone Dictation Access feature. The auxiliary trunk ports that are used to connect CPE to the digital switch are administered as CPE Trunk Group members for those features such as Recorded Telephone Dictation Access that are not supported by port assignment fields on other System forms. For example, trunk port interfaces can be assigned on System forms for such features as Music-on-Hold Access (Feature-Related System Parameters form) and Loudspeaker Paging and Code Calling Access (Loudspeaker Paging and Code Calling Access form).

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
CPE Trunk Group	All	5-137

Hardware Requirements

A port on a TN763C Auxiliary Trunk circuit pack is required for each trunk to be assigned the CPE Trunk Group. A TN763C provides four ports.

D-Channel Backup

For DS1 trunk port interfaces used for ISDN-PRI, this provides a backup signaling link (D-Channel) in the event of a signaling link failure. If a signaling link failure were to occur, a switch to a backup signaling link (D-Channel) can be implemented.

D-Channel Backup requires that one D-Channel be administered as the Primary D-Channel and that a second D-Channel be administered as the Secondary D-Channel on the Signaling Group form. These assignments ensure that at certain times during D-Channel Backup process that each switch at each end of the interface select the same D-Channel.

Refer to the Facility and Non Facility Associated Signaling feature coverage for additional information. A detailed discussion of both Facility and Non Facility Associated Signaling and D-Channel Backup is provided. Sample Signaling Group forms which are used to administer the features are shown.

Data Call Setup

Provides three methods to set up a data call: Data Terminal (keyboard) Dialing which includes Alphanumeric Dialing, Data Hot Line, and Default Dialing (features covered separately elsewhere in this chapter) and Voice Terminal Dialing, or dedicating a voice terminal for data calls.

Note: Voice terminal dialing is not available in BRI applications because BRI terminals do not support voice call transfer to data or data call transfer to voice. Because of the transfer restriction, data calls cannot be set up for BRI data modules using just any voice terminal. The 7500D series voice terminals when equipped with an ADM, however, provide a dedicated data button which allows the use of the associated voice terminal for data call setup.

Typically, when a data terminal is available, keyboard dialing is more convenient and requires less steps; therefore, it should be used whenever possible.

In addition to data terminal and voice terminal dialing, the System accepts calls from other devices, such as a MPDM equipped with an ACU interface module. An analog modem interfaced with an ACU can also be used to provide dialing capability for a host computer.

The Administered Connection/Access Endpoint feature (covered elsewhere in this chapter) may also be used to establish a data call.

Administration—Voice Terminal Dialing

Voice Terminal Dialing must be used when the data terminal is connected to an analog modem or when a data terminal is not accessible for dialing.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Data Origination Access Code	6-127
Station (multi-appearance)	Button/Feature Button Assignments -data-ext (Ext:_)	6-245
Data Module	All	6-105
MPDM/MTDM		6-89
Data Line		
Modem Pool Group	Circuit Pack Assignments (1-32)	6-187

- Feature Access Codes Form—Assign a Data Origination Access Code. When a user places a data call to digital data endpoint, and does not transfer the call to another digital data endpoint but uses a modem or acoustically coupled modem, the user must dial the Date Origination access code before dialing the distant endpoint.

- **Station Forms**—Assign Data Call Setup buttons to multi-appearance voice terminals. This supports the use of the Data Call Setup One-Button Transfer To Data, Return-to-Voice, and Data Call Preindication features. If the Data Module form is associated with the station form complete the form.
- **Data Module Form**—If the Data Module form is not associated with the station, complete an MPDM/MTDM or Data Module form as required.
- **Modem Pool Group Form**—Assign Circuit Pack port locations if dialing outside locations requiring digital to analog conversion.

Depending on the hardware being used, assign ports to the following as required:

- Data Modules
- BCTs/510Ds
- 7400D Series or Callmaster Digital Voice Terminals
- 7500D Series of Voice Terminals with ADM
- Analog Modems (port is assigned using a 2500 Voice Terminal form)

Administration—Data Terminal (keyboard) Dialing

In addition to standard keyboard dialing, Data Terminal Dialing can be enhanced by Alphanumeric Dialing, Default Dialing, and the Data Hot Line features. Refer to the respective feature coverage provided elsewhere in this chapter for additional administration information associated with these features.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Data Module MPDM/MTDM Data Line 7500B	All	6-105 6-89 6-84
Modem Pool Group	Circuit Pack Assignments (1-32)	6-187

- **Data Module Form**—Complete an MPDM/MTDM, Data Line Data Module, or 7500B Data Module form as required.
- **Modem Pool Group Form**—Assign Circuit Pack port locations if dialing outside locations requiring digital to analog conversion.

Hardware Requirements

Data Call Setup is a means of using data equipment to establish data calls. Requirements for data modules, 510D, 515, or 615 BCT and 715 BCS terminals, and modems areas follows:

- **Data Modules:** Each MPDM/MTDM Data Module requires one port on a TN754B Digital Line circuit pack. The 7500B Data Module requires a port on a TN556 ISDN BRI Line circuit pack. When administered in multipoint (passive bus) configuration, a BRI port may be shared by up to two endpoints which can be of the following types stand-alone voice or stand-alone data. However, there can only be one integrated voice and data endpoint on a BRI port. A DTDM and a BRI ADM share the port with their associated voice terminal. Each Data Line data module requires a port on a TN726B Data Line circuit pack.
 - **7400A Data Module:** The 7400A Data Module may be used instead of a MTDM when using the combined Modem Pooling feature.
 - **7400B Data Module:** The 7400B Data Module can be used to provide voice and data communications to 7400D series voice terminals and the 602A1 Callmaster Digital Voice terminal that have connections to a data terminal or PC. The 7400B does not support synchronous communication or keyboard dialing.
 - **Data Line Data Module** Each TN726B Data Line circuit pack port connects to an ADU that provides an EIA 232C interface to the switch.
- **510D or 515 BCT:** Each 510D or 515 BCT requires one port on a TN754B Digital Line circuit pack for shared use of voice and data.
- **615BCT or 715 BCS:** Each 615BCT or 715 BCS requires one port on a TN754B Digital Line circuit pack for shared use of voice and data.
- **7400D Series or Callmaster Digital Voice Terminals:** Each voice terminal requires one port on a TN754B Digital Line circuit pack for shared use of voice and data. The 7403D and 74050 voice terminals require an optional DTDM. The 7404D requires an optional messaging cartridge, the 7406D requires an optional 703A Data Stand, and the 7407D requires an optional 702A DSU for connection to associated data terminals. In addition, a 7400B Data Module may be used to provide all 7400D series voice terminals a connection to data terminals and a common DCP interface to the switch.

- **7500D Series Voice Terminals:** Each voice terminal requires one port on a TN556 ISDN-BRI Line circuit pack for shared use of voice and data. The 7505D, 7506D, and 7507D require an optional ADM for connection to associated data terminals. For BRI applications, a TN778 Packet Control circuit pack is also required to provide ISDN BRI connectivity. The Packet Control circuit pack provides ISDN signaling links with Link Access Protocol for the D-Channel. See also the "Asynchronous Data Module" section in this Chapter.
- **Modems:** Each modem requires one port on a TN742, TN746B, or TN769 Analog Line circuit pack. (Administration designates the modem as a 2500-series voice terminal and assigns an extension number. A modem is connected to the port instead of a voice terminal. Access is through the assigned extension number.)
- **Modem Pooling:** A TN758 Modem Pool circuit pack, or one digital port associated with a TDM (either TDM or MTDM) and one analog port with analog modem, is required for each conversion resource.

Keyboard Dialing to off-premises data endpoints requires the use of a TN748C Tone Detector circuit pack. Extensive use of features and services using tone detection may necessitate adding additional TN748C circuit packs (several features also use a TN748C).

Data Hot Line

Provides for automatic nondial placement of a data call to an endpoint when the originator goes off-hook.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Abbreviated Dialing	All	6-2
Station	Data Module form	6-245
	AD List	
	Special Dialing Option	
	Hot Line Destination	
	AD Dial Code	
Data Modules:	AD List1 :	6-89
Data Line	Special Dialing Option	6-112
Processor Interface	AD Dial Code	6-105
MPDM, MTDM		6-109
NetCon		6-84
7500B		

- Abbreviated Dialing Form—Complete an AD form and enter the hot line dial string beside an appropriate AD Dial Code field.
- Station Forms—Complete the station's associated Data Module form. Assign the AD List per the AD form completed above (for example, "p" for personal, "g" for group, etc.). Enter "hot-line" in the Special Dialing Option field, and enter the appropriate AD Dial Code (code number on AD form that contains the hot line dial string) in the AD Dial Code field.
- Data Module Forms—Assign the AD List per the AD form completed above (for example, "p" for personal, "g" for group, etc.). Enter "hot-line" in the Special Dialing Option field, and enter the appropriate AD Dial Code (code number on AD form that contains the hot line dial string) in the AD Dial Code field.

Hardware Requirements

See Data Call Setup.

Data Modules

The following provides administration information for equipment requiring a data module interface to the switch.

Note: In addition to the equipment listed below, data module administration required for voice terminals is provided in the appropriate terminal coverage.

- Asynchronous EIA 232C compatible DTE
- AUDIX
- Data service unit associated with a private data line or the digital data system
- Data set
- Data terminal
- Local host computer
- MSA
- On- or off-premises administration/maintenance terminal
- Other DEFINITY Systems, System 75s, System 85s, or enhanced AT&T DIMENSION® PBX nodes in a DCS
- SMDR output device
- System Printer
- 3270 type data modules

Figure 4-8 shows typical data module connections to the System.

Administration

To implement data modules the following forms must be completed.

Form	Field	Form Instructions (Page #)
MPDM/MTDM	All	6-105
Recorded Announcement Data Module	All	6-115
Processor Interface Data Module	All	6-112
Data Line Data Module	All	6-89
Netcon Data Module	All	6-109
7500B	All	6-84

- **MPDM/MTDM Data Module Form—**
 - 700A—Complete one MPDM/MTDM Data Module form for each PDM-700A to be assigned. PDM-700A provides an interface to a MSA, SMDR output device, an on-premises administration terminal, data terminal, or a local host computer.
 - 700B—Complete one MPDM/MTDM Data Module form for each TDM-700B to be assigned. A TDM-700B provides an interface to an SMDR output device, a data set, or a data service unit associated with a private data line or the DDS.
 - 700C—Complete one MPDM/MTDM Data Module form for each TDM-700C to be assigned. The TDM-700C functions the same as a TDM-700B.
 - 700D—Complete one MPDM/MTDM Data Module form for each PDM-700D to be assigned. The PDM-700D functions similar to the PDM-700A. The MPDM can support a variety of data interface requirements. It provides V.35, EIA 232C, or RS-449 interfaces and an ACU RS-366 interface.
 - 700E—Complete one MPDM/MTDM Data Module form for each TDM-700E to be assigned. The MTDM is a multipurpose data module configured to provide digital switch interface to support trunk data requirements.
 - 7400A—Complete one MPDM/MTDM Data Module form for each 7400A Data Module to be assigned. The 7400A may be used as a replacement for an MTDM in support of the combined Modem Pooling feature.
 - 7400B—Instructions for administering a 7400B data module are provided in the appropriate voice terminal (that is, 7400D series, Callmaster digital voice terminal) coverage provided in Chapter 6.
- **Recorded Announcement Data Module Form—**Complete all fields on this form. This form is used with the Netcon Channel form that allows the System to transfer the recorded announcements file from the announcement board to the System tape and from the System tape to the announcement board.
- **Processor Interface Data Module Form—**Complete one Processor Interface Data Module form for each synchronous/asynchronous interface port to be assigned. These ports provide communications interfaces for the following:
 - 3B/CMS (maximum of one)
 - 3B/Message Server (maximum of one)
 - DCS (maximum of eight for multi-carrier cabinet System and maximum of four for a—single-carrier cabinet System)
 - AUDIX (maximum of one)
 - ISDN-PRI (maximum of eight for multi-carrier cabinet System and maximum of four for a single-carrier cabinet System)
 - vendor-supplied outbound CMS (maximum of one)
 - ISDN Gateway Adjunct (maximum of one)—supports the Station Identification/Automatic Number Identification (SID/ANI) feature.

Note: Not all maximums can be achieved at the same time. Either a vendor-supplied outbound CMS or an ISDN Gateway Adjunct interface can be supported in the System, but not both.

This form assigns a physical channel (01 through 08) from a TN765 Processor Interface circuit pack; it does not assign a physical port circuit. Connections for these interfaces is achieved via a digital line port and an MPDM combination, and/or in the case of DCS or ISDN-PRI, via a DS1 interface. One of the Processor Interface circuit packs (TN765) provides one direct EIA connection (labeled as Processor Interface on the back of the Control Carrier) which is available for simplex operation only. Use of this connection eliminates the need for one digital line/MPDM combination.

- Data Line Data Module Form—Complete one Data Line Data Module form for each Asynchronous Data Unit (ADU) EIA 232C DTE type interface to be assigned. A port on a TN726B Data Line circuit pack is required for each ADU interface to be provided.
- NetCon Data Module Form—Complete one Netcon Data Module form for each of a maximum of four data channels on the TN777 Network Control circuit pack.

The NetCon Data Module form is used to assign a physical channel (01 to 04) from the TN777 Network Control circuit pack. An associated port interface to the switch requires completion of a MPDM/MTDM form. The port assignment requires a port on a TN754B Digital Line circuit pack to the TDM associated with the equipment.

Since many applications can be assigned to the Netcon interface and there are just four channels, consideration must be given to the actual administration assignments so as not to exceed these limitations. In addition, several of the applications require use of the Terminal User's Interface (TUI) which is an internal software process. The TUI can support up to five associated ports being active at one time. As a result, care must be taken when provisioning a system to ensure that the assigned features can indeed be supported by the hardware and software.

There are two classifications of access or paths into the software maintenance of the switch central processor. The paths and their associated port requirements are as follows:

- Physical Paths:**
1. EIA Port (SMDR)—1 port
 2. Maintenance Circuit Pack (RMATS, local G3-MT, and remote G3-MT)—4 ports
 3. NetCon Channels (BCMS, Remote G3-MT, etc.)—4 ports
- Software Path**
1. Terminal User ID's (TUI's)—5 ports

The requirement for a physical path and/or software path is based on the application and the need for login sessions. The following provides a summary of the applications that can be assigned these paths and their path requirements:

Application	Netcon (Note)	TUI (Note)
PPN G3-MT port	No	Yes (1)
EPN G3-MT port	No	Yes (1)
Remote G3-MT	Yes (2)	Yes (2)
BCMS Terminal	Yes (2)	Yes (2)
INADS	No	Yes (6)
SMDR - DCE Port	No	No
SMDR - Other Than DCE Port	Yes (3)	No
PMS Printer	Yes (2)	Yes (2)
Journal/Log Printer	Yes (2)	Yes (2)
System Printer - DCE Port	No	Yes (2)
System Printer - Other Than DCE Port	Yes (2)	Yes (2)
PMS Interface	Yes (3)	No
Announcement Circuit Pack (TN750)	Yes (4)	No
Data Channel Loop Test	Yes (5)	No

- Notes:**
1. TUI in use when "powered up"
 2. In use while logged-in and/or printing
 3. NetCon channel in use continuously once established
 4. NetCon channel in-use while Saving/Restoring announcements
 5. Two NetCon channels are in-use while performing a Loop-Around test
 6. TUI in-use while dialed in

Access to a NetCon channel requires the assignment of a extension number on a NetCon Data Module form. Access to the TUI software requires a valid login. Internal design limits allows only five of the above TUI applications to be active at one time. As shown on the table, when announcements are Uploaded or Downloaded (store/restore to/from tape) from a TN750 Announcement circuit pack, the use of a NetCon port is required during the process. Also, maintenance requires the use of two NetCon channels during a data channel loop-around test. Several applications can share use of the same Netcon port (not simultaneously though) such as the Remote G3-MT and Announcement Upload/Download or the PMS interface and journal/log printers.

- ADM—Refer to the 7505D, 7506D, and 7507D Voice Terminal coverage in Chapter 6 associated Data Module form, if required, is covered with each respective terminal's coverage).

- Digital Terminal Data Module—Refer to the 7403D and 7405D Voice Terminal coverage in Chapter 6 (the associated Data Module form, if required, is covered with each respective terminal's coverage).
- 3270 type Data Module Form—Complete one PDM/TDM Data Module form for each 3270-type Data Module to be provided an interface to the digital switch. The 3270 Data Module allows 3270-type terminals such as an IBM* 3278 Information Display System to communicate with a host computer via the digital switch. A 3270 type data module allows connection to industry-type cluster controllers. A port on a TN754B Digital Line circuit pack is required for each 3270 Data Module interface provided.
- 7500B Data Module Form—Complete one 7500B Data Module form for each 7500B Data Module to be assigned. The 7500B Data Module connects DTE such as a modem to the ISDN network.

Hardware Requirements

A port is required on a TN754B Digital Line circuit pack for each MPDM, MTDM, or 7400A Data Module to be assigned. One TN754B provides eight ports.

A port is required on a TN726B Data Line circuit pack for each interface to be provided asynchronous EIA 232C compatible equipment. An ADU allows direct connection between the digital switch port on a TN726B Data Line circuit pack and EIA terminals, printers, and computer ports. One TN726B provides eight ports.

A port is required on a TN556 ISDN BRI Line circuit pack for each 7500D data module to be assigned. Due to multipoint support, a port may be shared with another voice-only or data-only endpoint. The TN556 ISDN BRI Line circuit pack provides 12 ports which support a maximum of 24 stations or data modules. In addition, the TN778 Packet Control Circuit pack is also required.

* Registered trademark of International Business Machines Corporation

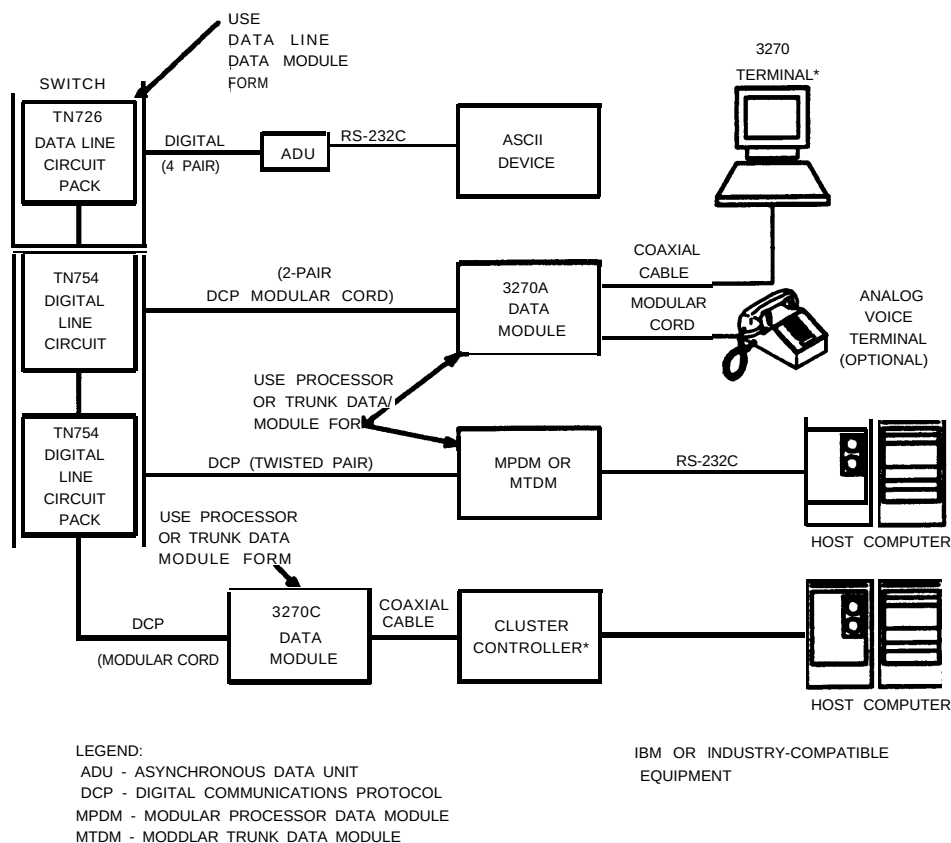


FIGURE 4-8. Typical Data Module Connections

Data-Only Off-Premises Extensions

Allows users to establish data calls involving DCE or DTE that is located remotely from the System site using DATAPHONE® data communication service or other private line data facilities. A Data-Only Off-Premises Extension uses a MTDM located on-premises. Communication with the remote data equipment is accomplished through the private line facility linking the on-premises MTDM and the remote data equipment.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
MPDM/MTDM Data Module	All	6-105

- MPDM/MTDM Data Module Form—Assign the associated data module port interface to the digital switch.

Hardware Requirements

Requires a MTDM and one port on a TN754B Digital line circuit pack.

Data Privacy

Protects analog or digital endpoints involved in a data connection from unwanted intrusion of tones, music, or voice which may be misconstrued as data. Data Privacy, when activated by a user, denies the system the ability to gain access to, or to superimpose tones, music, or voice onto, the protected call.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Data Privacy Access Code	6-127
Class of Service	Data Privacy (0-15)	6-77

- Feature Access Codes Form—Complete Data Privacy Access Code field.
- COS Form—Verify Data Privacy field has the correct permission.

Hardware Requirements

None.

Data Restriction

Protects analog or digital endpoints involved in a data connection from unwanted intrusion of tones, music, or voice which may be misconstrued as data. Data Restriction, when administered to an extension number or trunk group, denies the system the ability to gain access to, or to superimpose tones, music, or voice onto, the protected call.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station	Data Restriction	6-245
Trunk Groups:	Data Restriction	
Access		5-98
APLT		5-112
CO		5-123
CPE		5-137
DID		5-156
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264

- Station Forms—Complete Data Restriction field.
- Trunk Group Forms—Complete Data Restriction field.

Hardware Requirements

None.

DCS Alphanumeric Display for Terminals

Allows calls to or from terminals on different nodes (switches) in a DCS equipped with alphanumeric displays to have transparency with respect to the display of call-related data.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Tie Trunk Group (DCS TG)	Outgoing Display	5-247

- Tie Trunk Group Form—Enter "n" in the Outgoing Display field of the DCS Tie Trunk Group forms. This enables the called party's name to be displayed at the calling terminal.

Hardware Requirements

DCS interface hardware is required.

DCS Attendant Control of Trunk Group Access

Allows an attendant at any node in the DCS to exercise control over an outgoing trunk group at a different node in the cluster.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Feature Button Assignments -act-tr-grp -deact-tr-g -remote-tgs	6-32

- Attendant Console Form—Assign Attendant Control of Trunk Group Access Activate (act-tr-grp) and Attendant Control of Trunk Group Access Deactivate (deact-tr-g) buttons for each remote trunk group to be controlled. Assign a "remote-tgs" button for each remote trunk group to be controlled [that is, Direct Trunk Group Select **[1]** through **[6]** for the Basic Attendant Console (301A) or **[1]** through **[12]** on the Enhanced Attendant Console (302A)].

Hardware Requirements

DCS interface hardware is required.

DCS Attendant Direct Trunk Group Selection

Allows attendants at one node to have direct access to an idle outgoing trunk at a different node in the DCS.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Direct Trunk Group Select Button Assignments -remote-tgs	6-32

- Attendant Console Form—Assign up to 12 "remote-tgs" buttons in the Direct Trunk Group Buttons (Access Code) field on Page 1 of the form if not already assigned. An additional 12 buttons can be assigned on Page 2 of the form if required. Assign the TAC used to access the remote switch and the TAC of the remote trunk group to be accessed.

Hardware Requirements

DCS interface hardware is required.

DCS Attendant Display

Provides some transparency with respect to the delay of call-related information.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Display Module Button Assignments	6-32

- Attendant Console Form—Assign up to eight buttons in the Display Module Button Assignment field as required.

Hardware Requirements

DCS interface hardware is required.

DCS Automatic Callback

Allows a user at one node to make an automatic callback call to a user at another node in the DCS. Note that automatic callback calls do not apply for VDNs.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Automatic Callback—No Answer Timeout Interval	6-133
Feature Access Codes	Automatic Callback Activation Automatic Callback Deactivation	6-127
Station (multi-appearance)	Button/Feature Button Assignments -auto-cback	6-245
Class of Service	Automatic Callback (0-15)	6-77

- Feature-Related System Parameters Form—Specify callback time-out interval in the Automatic Callback—No Answer Timeout Interval (rings) field.
- Feature Access Codes Form—Verify Automatic Callback Activation and Deactivation fields have been assigned.
- Station Forms—Assign Automatic Callback (auto-cback) buttons to multi-appearance voice terminals, as desired.
- COS Form—Verify Automatic Callback field has the correct permission.

Hardware Requirements

DCS interface hardware is required.

DCS Automatic Circuit Assurance

Allows a voice terminal user or attendant at a System node to activate or deactivate Automatic Circuit Assurance (ACA) referral calls for the entire DCS network. This transparency also allows the referral calls to be generated at a node other than the node that detects the problem.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	ACA Referral Calls	6-133
Attendant Console	Feature Button Assignments -aca call	6-32
Station (multi-appearance)	Button/Feature Button Assignments -aca call	6-245
Tie Trunk Group	ACA Assignment	5-247

- Feature-Related System Parameters Form—Determine if ACA referral calls are to be "local," "remote," or "primary."
 - If administered as "local," referral calls are generated at the System node for the the System node.
 - If administered as "remote," referral calls are generated at a remote node for the System node. In this case, the remote node PBX identification must also be entered. The remote PBX ID is the same PBX code as defined on the Dial Plan form.
 - If administered as primary, referral calls are made at the System node for one or more remote nodes.
- Station (multi-appearance) Form—Assign ACA (aca-call) feature button if required.
- Attendant Console Form—Assign ACA (aca-call) feature button if required.
- Tie Trunk Group form—Complete the ACA Assignment and associated Long and Short Holding Time and Short Holding Threshold fields as required.

Hardware Requirements

DCS interface hardware is required.

DCS Busy Verification of Terminals and Trunks

Allows attendants and multi-appearance voice terminal users to make test calls to voice terminals and trunk groups that are located at other nodes within the DCS.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Feature Button Assignments -verify	6-32
Station (multi-appearance)	Button/Feature Button Assignments -verify	6-245

- Attendant Console Form—Assign a “verify” button.
- Station Forms—Assign a “verify” feature button on multi-appearance voice terminals.

Hardware Requirements

DCS interface hardware is required.

DCS Call Forwarding—All Calls

Allows all calls to an extension number to be forwarded to a selected extension number within the DCS network or to an external (off-premises) number. This feature is activated or deactivated by dial access code or by a Call Forwarding button. The feature can be activated or deactivated only by voice terminal users within the DCS. Note that calls can be forwarded to a VDN anywhere in the DCS network. An attendant cannot activate/deactivate Call Forwarding for a VDN.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Call Forwarding Activation Call Forwarding Deactivation	6-127
Station	Redirect Notification Button/Feature Button Assignments -call-fwd	6-245
Class of Service	Call Fwd-All Calls (0-15)	6-77

- Feature Access Codes Form—Verify Call Forwarding Activation and Deactivation field access codes have been assigned.
- Station Forms—Complete Redirect Notification field (which causes the forwarding terminal to receive a half ring on calls that forward). This field is common to Call Coverage and Call Forwarding.
 - Station Forms—Assign a Call Forwarding (call-fwd) feature button.
 - COS Form—Verify Call Forwarding field has the correct permission.

Hardware Requirements

DCS interface hardware is required.

DCS Leave Word Calling

Enables System terminal users to leave preprogrammed “call me” messages at other terminals within the DCS network. Messages can be left by calling, called, or covering users.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Max. Number Of Messages Per Station Stations With System-wide Message Retrieval Permission	6-133
Feature Access Codes	LWC Message Retrieval Lock LWC Message Retrieval Unlook LWC Send A Message LWC Cancel A Message	6-127
Station	LWC Reception LWC Activation Button/Feature/Button Assignments -lwc-store -lwc-cancel -aut-msg-wt (Ext:_) -msg-retr -delete-msg -lwc-lock -next -call-disp -cov-msg-rt	6-245
Attendant Console	Feature Button Assignments -cov-msg-rt -delete-msg -next -lwc-cancel -call-disp -lwc-store -aut-msg-wt (Ext:_)	6-32

- Feature-Related System Parameters Form—Complete the Maximum Number of Messages Per Station and Stations with System-wide Retrieval Permission fields.
- Feature Access Codes Form—Verify or assign the following access codes:
 - LWC Message Retrieval Lock field
 - LWC Message Retrieval Unlock field
 - LWC Send a Message field
 - LWC Cancel a Message field
- Station Forms—Complete the “LWC Reception” and “LWC Activation” fields (which specify if the voice terminal can receive and/or activate LWC messages, respectively).
 - Assign a LWC (lwc-store) button, if desired
 - Assign a Cancel (lwc-cancel) button, if desired, to allow a calling party to cancel a previously left message.
- Attendant Console Form or the Station Form—For each voice terminal or attendant console group that can retrieve LWC messages, optionally assign the following buttons:
 - Message Retrieve (msg-retr) to access one’s own messages—voice terminals only
 - Cover Msg Retrieval (cov-msg-rt) to access another user’s message
 - Delete Message (delete msg) to remove a retrieved message
 - Lock LWC (lwc-lock) displays locked or unlocked status of the Message Retrieval
 - Next (to retrieve the next stored message)
 - Cancel LWC (lwc cancel) to allow canceling a previously left message
 - Message name or extension # (aut-msg-wt) used for voice terminal users who monitor another user’s messages.

Note: Buttons can be assigned on the visual display module or in the “features area” of the terminal or console. If a Message Retrieval or a Coverage Message Retrieval button is specified, a Next Message and a Delete Message button should also be specified. These button assignments are covered in the Attendant Display and Voice Terminal Display features.

Hardware Requirements

DCS interface hardware is required.

DCS Over ISDN-PRI D-Channel

Enhances the DCS feature by allowing access to the public network to provide DCS feature connectivity between DCS switch nodes. DCS features are no longer restricted to private facilities. The ISDN-PRI B-Channel is used for voice communications, and the ISDN-PRI D-Channel is used to transport DCS control information. The only difference between DCS networks that do not utilize the DCS over ISDN-PRI feature and those that do is in the method of signaling. The DCS Over ISDN-PRI D-Channel feature uses TSCS to transport certain DCS control information.

A TSC provides a temporary signaling path through ISDN switches for exchanging user-user information. There are two types of temporary signaling connections: Call Associated Temporary Signaling Connection (CA-TSC) and NCA-TSC.

A CA-TSC refers to a service for exchanging USER INFORMATION messages that are associated with an ISDN B-Channel connection by the call reference value of the call control data packets.

An NCA-TSC is a connection that is not related to any ISDN B-channel connections. It is an administered virtual connection established for exchanging USER INFORMATION messages on the ISDN D-Channel for the DCS over ISDN-PRI D-Channel application as well as for the DCS AUDIX application. Once an NCA-TSC has been administered and enabled it will be active for an extended period of time. There are two types of administered NCA-TSCS depending on their setup mechanism: **Permanent**— Can be established by Near-end or Far-end, and **As-needed** NCA-TSCs.

Once enabled, a permanent NCA-TSC will remain established while the System is running. If the permanent NCA-TSC is dropped for any reason, the System will attempt to re-establish the connection. An as-needed administered NCA-TSC is established based on user request and the availability of TSC facilities. The connection is dropped after an administered period of inactivity.

The System can transport DCS or DCS Audix messages over an ISDN-PRI D-Channel and over BX.25 data links when functioning as a gateway between a PBX equipped with the DCS Over ISDN-PRI D-Channel feature and a PBX equipped with traditional DCS using BX.25 data links. In this situation, the messages travel from the gateway through the NCA-TSCs or CA-TSCs to TSC-capable PBXs and from the gateway to PBXs that support only traditional DCS via a BX.25 logical channel.

ISDN DCS Gateway Node

At least one PBX must be configured as an ISDN DCS Gateway node in a DCS network that consists of PBXs that support DCS Over ISDN-PRI D-Channel and PBXs that do not support the feature.

Examples of various DCS Network Configurations are provided later in this section. Administration necessary to configure the TSCs and other related parameters for the network is provided with the examples.

There are two configurations that allow the ISDN Gateway to monitor calls which involve vector processing. Both of the following configurations trace calls for their durations once they terminate to an ISDN Gateway split (not necessarily answered by an agent in that split):

- Calls that terminate to an ISDN Gateway split and are redirected to a vector. The calls are redirected by either call forwarding from the split to a vector or by an agent in the ISDN Gateway split answering the call and then transferring the call to a vector. This seems to be the most useful configuration since it allows the use of “queue to main” and “check backup” vector steps.
- Calls that first terminate to a vector and then are routed to an ISDN Gateway split. In this configuration, the “queue to main” and “check backup” vector steps cannot be used because they involve vector controlled splits.

Administration

The ISDN-PRI option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

Note that the following does not provide administration instructions associated with assigning an ISDN-PRI trunk group or administering a DCS network. Refer to the appropriate sections in the manual for related instructions.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
SIGNALING GROUP Page 1 contains TSC-related fields Pages 2 through 5 contain Administered TSC-related fields.	Max number of NCA TSC Max number of CA TSC Trunk Group for NCA TSC Complete Administered “NCA-TSC Assignment” fields as needed. Service/Feature As-needed Inactivity Time-out (rein)	5-81
ISDN TSC GATEWAY CHANNEL ASSIGNMENTS	All	5-89
ISDN PRI TRUNK GROUP (Page 2 of form)	Used for DCS? PBX ID DCS Signaling NCA TSC Signaling Group	5-195
ROUTING PATTERNS	TSC CA-TSC Request	5-29
PROCESSOR CHANNEL ASSIGNMENT	Appl	6-194

- Signaling Group Form—Complete the following fields:
 - Max number of NCA-TSC—Specifies the maximum number of NCA-TSCs that will be supported in the Signaling Group. Allowable entries are 0 through 256. Default is “0.”
 - Max number of CA-TSC—Specifies the maximum number of CA-TSCs that will be supported in the Signaling Group. Allowable entries are 0 through 400. Default is “0.”
 - Trunk Group for NCA-TSC—Specifies the ISDN-PRI trunk group whose incoming Call Handling Table (ICHT) will be used to handle incoming NCA-TSCs through this signaling group.

Complete Pages 2 through 5 of the form as required to assign administered NCA-TSCs. A maximum of 64 administered NCA-TSCs may be administered as part of the Signaling Group form.
 - Service/Feature—Specifies the service type for all the Administered NCA-TSCs in this signaling group. Allowable entries are “accunet,” “i800,” “inwats,” “lds,” “mega800,” “megacom,” “multiquest,” “operator,” “sdn,” “sub-operator,” “wats-max-bnd.” Default is blank.
 - As-needed Inactivity Time-out(min)—Specifies the inactivity time-out for as-needed NCA TSCs assigned in this signaling group. When timer expires, an as-needed administered TSC will be torn down. Enter a number between “10” and “90.” Default is blank.
- ISDN TSC Gateway Channel Assignment Form—Used to map administered NCA-TSCs to (BX.25) processor channels in an Integrated DCS Network. (Form only required for PBX location serving as an ISDN Gateway in an Integrated DCS Network). Complete all fields as required.
- ISDN Trunk Group Form—Complete the following fields:
 - Used for DCS?—Appears for “access,” “rlt,” “tandem,” “tie,” and “isdn-pri” trunk group types. This field determines if a trunk will send and receive messages via a DCS signaling link. (NOTE: This field does not appear for an “isdn-pri” trunk group with a service type of “dmi-bos” or “ivbs.”) For all other “isdn-pri” trunk group types, if “y” is entered in this field, then the dependent fields “PBX ID” and “DCS Signaling” appear.
 - PBX ID (dependent field)—Only displayed when the “Used for DCS?” field entry on the ISDN PRI trunk group form is “y.” Identifies the remote PBX within the network with which the trunk will communicate on a DCS signaling link. Allowable entries are “1” through “63.” Default is “1.”
 - DCS Signaling (dependent field)—Only displayed when the “Used For DCS?” field entry on the ISDN PRI trunk group form is “y.” The option “bx.25” is used to support the traditional DCS feature. The option “d-chan” is used to support the DCS Over ISDN-PRI D-Channel feature. Enter “d-chan.”

- NCA-TSC Signaling Group—Specifies on which signaling group NCA-TSC calls routed to this trunk group should be established. Allowable entries are “1” through “8” or blank. Number entered must match at least one of the entries in the “Sig Grp” column on the “Trunk Group Member Assignments” portion of the Trunk group form. Default is blank.

Note: If there is no ambiguity in the “Sig Grp” column (that is, only one number has been entered for one or more group members), then, if this field is left blank, the system will fill in the field based on the information that was entered in the “Trunk Brd” column on Page 1 of the Signaling Group form. If there is ambiguity, then you must fill in this field.

- Routing Pattern Form—Complete the following fields:

- TSG—Allowable entries are “y” or “n.” When a “y” is entered in this field, the “CA-TSC” field becomes writable. (See “CA-TSC Request” below.) For an NCA-TSC, the option means that the NCA-TSC will be blocked if it is routed through this pattern in a tandem switch. Default is “n.”
- CA-TSC Request—This field becomes writable when a “y” is entered in the “TSC” field. (See “TSC” above.) You must specify when a CA-TSC will be established if the call is routed through a particular preference of a routing pattern. Allowable entries are then “as-needed,” “at-setup,” and “none.” The first two entries, “as-needed” and “at-setup” are meaningful only for CA-TSCs. If the “as-needed” option is entered, a CA-TSC will be established only when it is requested during a call. If the “at-setup” option is requested, then the CA-TSC will be established when the call is set up. Selection of the “none” option means that there will be no CA-TSC associated with this call. Default is “none.”

- Communications-Links Processor Channels Form—The “Appl” field specifies to which application channel this processor channel is connected. Enter “gateway” in the associated “Appl” field if the processor channel is used as one end of the gateway channel assigned in the ISDN TSC Gateway Channel Assignments form. The gateway node serves as the terminating node to the D-Channel DCS network as well as the terminating node to the traditional DCS network.

A PBX serving as an ISDN DCS Gateway node introduces some interesting situations when administering processor channels in an associated traditional DCS PBX. In a traditional DCS network, (bx.25 processor channel links) the “Remote Proc Chan” field in the Processor Channel Assignments form refers to the processor channel of the destination PBX. In an Integrated DCS network, the “Remote Proc Chan” field in the Processor Channel Assignments form refers to the processor channel of the Gateway PBX (if the destination PBX is an ISDN DCS PBX), NOT the destination PBX. On the contrary, the “Machine-ID” field in the Processor Channel Assignments form refers to the destination PBX, either an ISDN DCS PBX or a traditional DCS PBX. The Gateway PBX number MUST not be used in this field if the destination PBX is an ISDN DCS PBX.

Example of an Integrated DCS Network

Figure 4-9 shows an example of an integrated DCS network configuration. PBXs A, B, C, E, and F are PBXs which do not support the DCS over ISDN-PRI D-Channel feature. PBXs D, G, and H are PBXs which support the DCS over ISDN-PRI D-Channel feature. PBX D acts as an **ISDN DCS Gateway Node** for PBXs A, B, and C to transport DCS messages to/from PBXs on the other side of the AT&T network. PBX G acts as an **ISDN DCS Gateway Node** for PBXs E and F to transport DCS messages to/from PBXs on the other side of the AT&T network as well as to/from PBX H.

The DCS configuration between PBXs A, B, C, and D, as well as between PBXs E and F, is a traditional DCS network. That means they are interconnected with tie trunks and separate BX.25 data links.¹ The tie trunks are used for voice communication while the BX.25 data links are used to transport supplementary call and feature control information. DCS messages may hop/tandem² through one PBX to another PBX in a traditional DCS network.

PBXs D, G, and H are interconnected with ISDN-PRI facilities which include B-channels and D-Channels. The voice communication will be carried by B-channels while the control information will be carried by D-Channels. DCS messages exchanged in these PBXs are ISDN DCS messages. ISDN DCS messages from PBX D to PBX H are tandemmed by PBX G. Figure 4-10 shows typical NCA-TSCs and Data Link connections in an Integrated DCS network.

1. These tie trunks or the BX.25 data links could be ISDN-PRI B-channels.

2. A DCS message may be hopped/tandemmed to another PBX in a **traditional DCS network** depending on the DCS feature and the DCS network configuration.

Table 4-C shows the logical connections required for PBX H to other PBXs in the integrated DCS network shown in Figure 4-10.

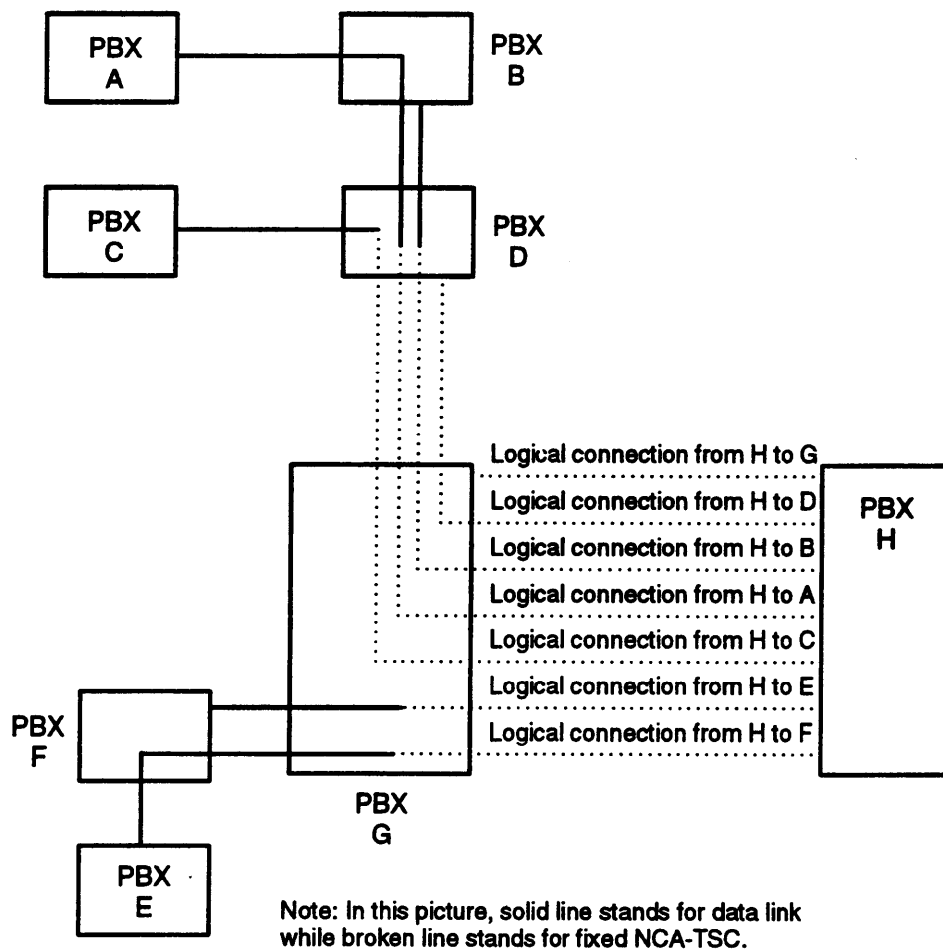


FIGURE 4-10. NCA-TSC and Related Data Link Assignments from PBX H to Other PBXs

TABLE 4-C. Example Integrated DCS Network NCA-TSC/Data Link Connections

From PBX	To PBX	Logical Connection
H	A	An administered NCA-TSC from PBX H to PBX D which then connects to a BX.25 logical channel from PBX D to PBX A which hops through PBX B.
H	B	An administered NCA-TSC from PBX H to PBX D which then connects to a BX.25 logical channel from PBX D to PBX B.
H	C	An administered NCA-TSC from PBX H to PBX D which then connects to a BX.25 logical channel from PBX D to PBX C.
H	D	An administered NCA-TSC from PBX H to PBX D.
H	E	An administered NCA-TSC from PBX H to PBX G which then connects to a BX.25 logical channel from PBX G to PBX E which hops through PBX F.
H	F	An administered NCA-TSC from PBX H to PBX G which then connects to a BX.25 logical channel from PBX G to PBX F.
H	G	An administered NCA-TSC from PBX H to PBX G.

From PBX H, a separate administered NCA-TSC connection is needed to every other PBX in the Integrated DCS network. If the terminating PBX is not a PBX that supports the DCS over ISDN-PRI D-Channel feature then the administered NCA-TSC is terminated at the appropriate ISDN DCS gateway node and a gateway channel is administered on the gateway node to complete the connection.

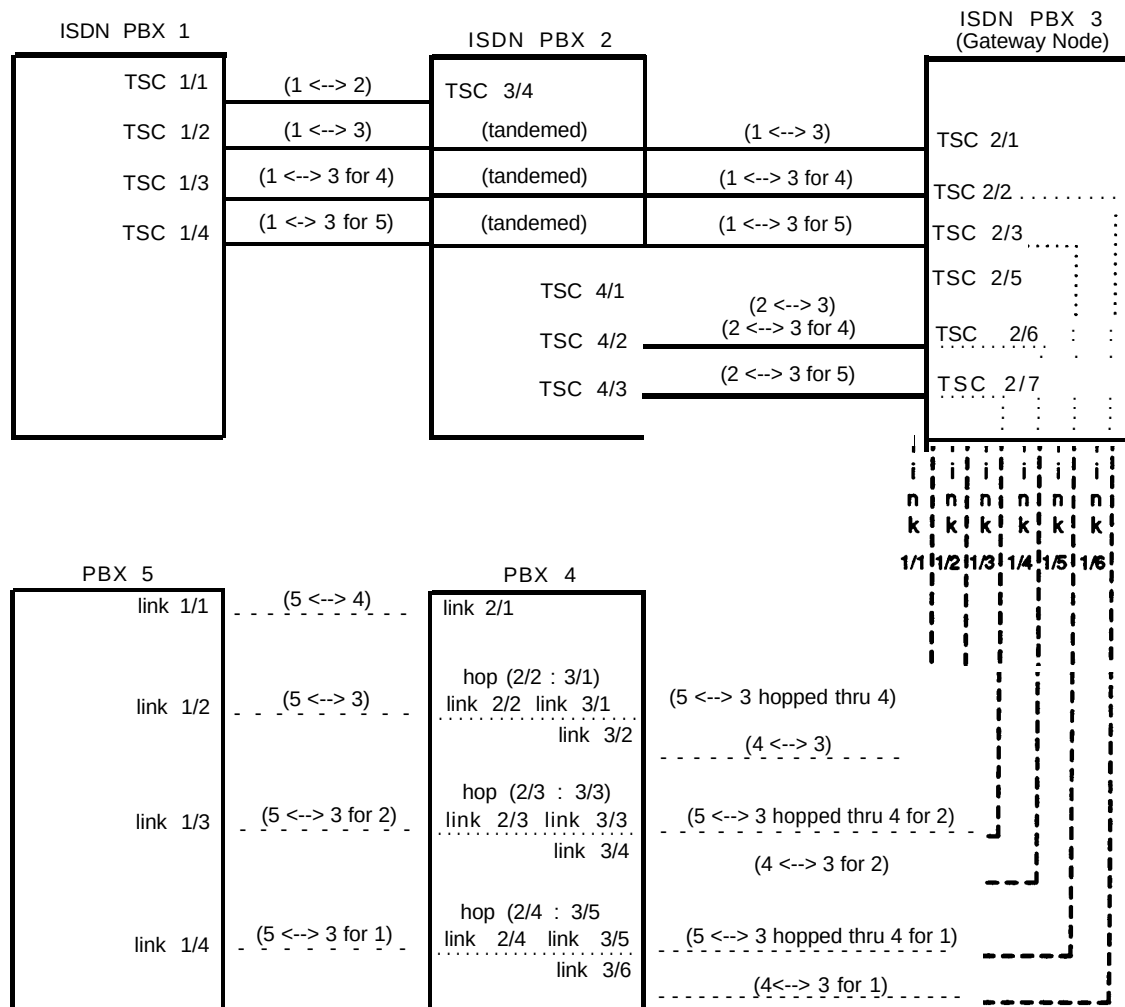
All other PBXs in the Integrated DCS network will have the similar link configuration.

Example DCS Network Configuration

Figure 4-11 provides an example of a traditional DCS Network configuration. PBXs 1, 2, and 3 are TSC Capable PBXs that support DCS over ISDN PRI D-Channel. PBXs 4 and 5 do not support DCS over ISDN PRI D-Channel, but use traditional DCS. Solid lines represent administered NCA-TSCs, dotted lines represent gateway channels and hop channels, and dashed lines represent SCI links.

● Notation

- TSC x/y - Administered NCA-TSC Index y belonging to Signaling Group x
- (m <--> n) - represents a connection between PBX m and PBX n
- (m <--> n for z) - An administered NCA-TSC exists between PBX m and “gateway” PBX n, for the purpose of establishing a connection between PBX m and PBX z (a non-TSC Capable PBX)
- Link a/b - Logical channel b on interface link a
- hop(a/b : c/d) - A hop channel exists between interface link a - BX.25 logical channel b and interface link c - logical channel d



Note: In the above figure, PBXs 1, 2, and 3 support TSCs. PBXs 4 and 5 do not support TSCs.

FIGURE 4-11. Sample DCS Network Configuration

Administration Example

It should be noted that the following administration is not intended to be complete but merely to aid in the understanding of Figure 4-11. Refer to the various screen forms elsewhere in the manual for specific information related to the referenced forms and fields on forms.

The following describes the administration necessary to configure the DCS Network shown in Figure 4-11. For administered NCA-TSC administration, all the administered NCA-TSCs are assumed to be enabled and the establishment strategy is assumed to be in accordance with one of the first three examples presented in Table 4-D. Table 4-E provides administration instructions associated with each PBX.

An entry of NA on the Processor Channel Assignments form means that field will be left blank.

- Assumptions:

- Extensions in the range 2000-2999 terminate at PBX 1
- Extensions in the range 3000-3999 terminate at PBX 2
- Extensions in the range 4000-4999 terminate at PBX 3

Administration for PBX 1

- Administered NCA-TSC Administration:

TABLE 4-D. Administered NCA-TSC Administration - PBX 1

Signaling Group 1				
Admin. TSC Index	Local Ext.	Dest. Digits	Far End PBX ID	Notes
1	2000	3000	2	A. NCA-TSC PBX 1<-->PBX 2
2	2001	4000	3	A. NCA-TSC PBX 1<-->PBX 3
3	2002	4001	4	Use Node 3 as a gateway to PBX 4
4	2003	4002	5	Use Node 3 as a gateway to PBX 5

Administration for PBX 2

- Administered NCA-TSC Administration:

TABLE 4-D (continued).
Administered NCA-TSC Administration - PBX 2

Signaling Group 4				
A. TSC Index	Local Ext.	Dest. Digits	Far End PBX ID	Notes
1	3001	4003	3	A. NCA-TSC PBX 2<-->PBX 3
2	3002	4004	4	Use Node 3 as a gateway to PBX 4
3	3003	4005	5	Use Node 3 as a gateway to PBX 5

Signaling Group 3				
A. TSC Index	Local Ext.	Dest. Digits	Far End PBX ID	Notes
4	3000	2000	1	A. NCA-TSC PBX 2<-->PBX 1

Administration for PBX 3 (Gateway PBX)

- Administered NCA-TSC Administration:

TABLE 4-D. (continued).
Administered NCA-TSC Administration - PBX 3

Signaling Group 2				
A. TSC Index	Local Ext.	Dest. Digits	Far End PBX ID	Notes
1	4000	2001	1	A. NCA-TSC PBX 3 <-->PBX 1
2	4001	2002	gateway	Gateway Channel from PBX 1 to PBX 4
3	4002	2003	gateway	Gateway Channel from PBX 1 to PBX 5
5	4003	3001	2	A. NCA-TSC PBX 2<-->PBX 3
6	4004	3002	gateway	Gateway Channel from PBX 2 to PBX 4
7	4005	3003	gateway	Gateway Channel from PBX 2 to PBX 5

- Gateway Channel Administration:

Sig. Group	Administered TSC Index	Processor Channel	Application
2	2	10	d c s
2	3	9	dcS
2	6	8	dcS
2	7	7	dcS

- Processor Channel Administration:

TABLE 4-D (continued).
Administered NCA-TSC Administration - PBX 3

Proc. Channel	Application	Int. Link	Channel	Remote Proc. Channel	PBX ID
5	dcs	1	1	5	5
6	dcs	1	2	6	4
7	gateway	1	3	7	NA
8	gateway	1	4	8	NA
9	gateway	1	5	9	NA
10	gateway	1	6	10	NA

Administration for PBX 4

- Processor Channel Administration:

TABLE 4-D (continued).
Administered NCA-TSC Administration - PBX 4

Proc. Channel	Application	Int Link	Channel	Remote Proc. Channel	PBX ID
6	4	3	2	6	3
8	dcs	3	4	8	2
10	dcs	3	6	10	1
11	dcs	2	1	11	5

TABLE 4-D (continued).
(continued).
Administered NCA-TSC Administration - PBX 4

- Hop Channel Administration:

Link	Channel	Link	Channel
3	1	2	2
3	3	2	3
3	5	2	4

Administration for PBX 5:

- Processor Channel Administration

TABLE 4-E. Administered NCA-TSC Administration - PBX 5

Proc. Channel	Application	Int. Link	Channel	Remote Proc. Channel	PBX ID
5	dcS	1	2	5	3
7	dcS	1	3	7	2
9	dcS	1	4	9	1
11	dcS	1	1	11	4

DCS Trunk Group Busy/Warning Indication

Provides attendants with a visual indication that the number of busy trunks in a remote group has reached an administered level. A visual indication is also provided when all trunks in a trunk group are busy.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Direct Trunk Group Select Button Assignments (1-6) for 301A Basic or (1 -12) for the 302A Enhanced Attendant Console.	6-33
Trunk Groups:	Busy Threshold	
Access		5-94
APLT		5-104
CO		5-113
CPE		5-123
DMI-BOS		5-129
FX		5-145
ISDN-PRI		5-155
RLT		5-174
Tandem		5-183
Tie		5-193
WATS		5-204

- Attendant Console Form—Trunk group must be assigned to one of the first six Direct Trunk Group Button Assignments (Access Codes) field on the console. Refer to Attendant Direct Trunk Group Selection feature for additional information.
- Trunk Group Forms—Assign Busy Threshold (warning) field.

Hardware Requirements

DCS interface hardware is required.

Default Dialing

Enhances Data Terminal (Keyboard) Dialing by allowing a data terminal user to place a data call to a pre-administered destination by simply entering a carriage return at the "DIAL" prompt. The user can still place calls to other destinations by entering the complete address after the "DIAL" prompt (normal Data Terminal Dialing with/without Alphanumeric dialing).

For the AT command set supported by the 7400A Data Module, the Attendant Dial (ATD) command may be entered instead of a carriage return to dial the default destination. The "AT" command set emulates the AT command set of the Hayes Smartmodem™.

Default Dialing can be assigned to any data endpoint that has Data Terminal Dialing capability.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Abbreviated Dialing List Data Module	All	6-2
	Special Dialing Option Abbreviated Dialing List AD Dial Code	6-83

- Abbreviated Dialing List form—Enter the default destination on the appropriate Abbreviated Dialing List form for your terminal. This list can be a System, Group, Personal, or Enhanced List.
- Data Module form—Complete the following fields on appropriate Data Module forms (that is, Data Line, MPDM) as follows:
 - Special Dialing Option—Enter "default." Note that Default Dialing and the Data Hotline feature cannot both be assigned on the Data Module form.
 - Abbreviated Dialing List—Enter the abbreviated dialing list type where the default destination is stored.
 - AD Dial Code—Enter the AD list number associated with the stored default destination.

Hardware Requirement

Refer to the Data Call Setup feature coverage for associated hardware requirements.

Demand Print

Allows the voice terminal user to print his/her own undelivered messages without calling the Message Center.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -print-msgs	6-245
Station	Security Code	6-245
Feature Access Codes	Print Messages Access Codes	6-127

- Station Forms—Assign Demand Print (print-msgs) feature buttons to multi-appearance stations. Assign 4-digit code in the Security Code field to enable retrieving Demand Print messages.
- Feature Access Codes Form—Assign Print Messages Access Codes.

Hardware Requirements

A Message Server Adjunct (MSA) such as a 3B2 equipped with appropriate Message Server software and associated printers. Refer to the Message Server implemental.bn instructions for additional information.

Dial Plan

The Dial Plan is the system's guide to digit translation. When a digit is dialed, the system must know what to expect, based on that digit. For example, if a voice terminal user dials a 4, the system must know how many more digits to expect before the call will be processed.

A feature access code cannot be assigned to a feature if it is not already defined and consistent with the Dial Plan.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Dial Plan	All	6-117

- Dial Plan Form—Enter the local area code and whether or not a digit 1 is required to indicate a long distance call. Identify if a UDP is to be used and complete all First Digit Table entries as required.
- If the UDP option is used, enter the number of digits in the plan (4 or 5), PBX Codes, Local/Remote Indicator, RNXs for all switches, and all PBX IDs.

Hardware Requirements

None.

Dialed Number Identification Service (DNIS)

Provides a called party or answering position with a personalized identification of the service or product associated with the call. The system can be administered to detect and display the name of the product or service being called about.

For ISDN-PRI calls, Dialed Number Identification Service (DNIS) is the called party number in the associated call setup messages. No additional administration is required for these type calls.

For non-ISDN-PRI type calls, DNIS can be obtained from the network by subscribing to AT&T-COMM DNIS service. The connecting central office passes four digits (extension number) representing the dialed 800 number to the digital switch. The System then connects the call to an interim TEG, hunt group, phantom extension (see Administration Without Hardware feature) or ACD split which immediately forwards the call to a terminating extension. The terminating extension can be either a station, hunt group, or ACD split. The interim extension is assigned the name of the product or service associated with the call. When the terminating extension answers the call, the user's display-equipped voice terminal shows the name of the product or service being called. As a result, the user can answer the call accordingly.

Implementation of the switch for non-ISDN-PRI type calls can be accomplished in several ways. Note that the answering user requires a display-equipped station to identify the product or service being called.

Administration

The following does not provide administration guidelines for the answering extension. Refer to the appropriate coverage (for example, 7400D series Voice Terminals, ACD, DDC/UCD) in this chapter for those guidelines.

DNIS via DID Trunk Group

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
DID Trunk Group	All	5-156
Hunt Group	All	6-160
or		
Station (phantom extension)	All	6-245
or		
Terminating Extension Group	All	6-214
Call Coverage Paths	All	6-55

- DID Trunk Group Form—A separate DID trunk group must be assigned whose incoming calls will terminate at the interim extension. The extension can be a phantom extension, TEG, hunt group, or ACD split. The Group Name field on the form can be administered as "DNIS" or as appropriate to identify the trunk group usage.

- **Hunt Group Form**—This hunt group is administered as an interim extension. The purpose of the hunt group is to send the call along with the name of the product or service being called to an answering (display-equipped) station. The hunt group will not have Group Member Assignments (that is, no members). Administer the Group Extension field as the 4-digit number representing the 800 number being called. Administer the Group Name field with the name of the product or service being called. Assign a coverage path in the Coverage Path field. The Coverage Path form will be administered to forward the calls to the appropriate terminating extension. Optionally, the Hunt Group form can be administered as an ACD split (ACD field = “y”), and if appropriate, the Measured field as “internal” (BCMS), “external” (CMS), or “both” to obtain measurement reports of the call activity associated with the product or service.
- **Station Form**—Complete a station form to assign a phantom extension. Administer the Extension field as the number representing the 800 number being called. Administer the Name field with the name of the product or service being called. Assign a coverage path in the Coverage Path field. The Coverage Path form will be administered to forward the calls to the appropriate terminating extension. Enter “x” in the Port field. This permits the administering of a station form without having a port assigned and does not require a voice terminal.
- **TEG Form**—This form can be administered as the interim extension instead of the Hunt Group form. Administer the Group Extension, Group Name and Coverage Path fields as required for the Hunt Group form. Do not administer the Group Member Assignments fields. Note that when using a TEG as the interim extension, measurement reports cannot be obtained.
- **Call Coverage Paths Form**—Assign the Coverage Path Number field per the path number entered on the interim extension form (that is, Hunt Group, ACD split, phantom extension, or TEG form). Assign the Coverage Criteria All field as “y” for both inside and outside calls. Administer the Coverage Point 1 field as the terminating extension. This extension can be a station, hunt group, or ACD split.

DNIS via Megacom 800 Service Tie Trunk Group

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Tie Trunk Group	All	5-247
Hunt Group	All	6-160
or		
Station (phantom extension)	All	6-245
or		
Terminating Extension Group	All	6-214
Call Coverage Paths	All	6-55

- Tie Trunk Group Form—A separate Tie Trunk Group must be assigned. Administer the Group Name field as “Megacom” or as required to identify the trunk group usage. Administer the Incoming Destination field as the interim extension. The extension can be a TEG, hunt group, phantom extension, or ACD split.
- Hunt Group Form—Administer same as for DID trunk group above.
- Station Form—This form can be administered as the interim extension instead of the Hunt Group form. Administer same as for DID trunk group above.
- Terminating Extension Group Form—This form can be administered as the interim extension instead of the Hunt Group form. Administer same as for DID trunk group above.
- Call Coverage Paths Form—Administer same as for DID trunk group above.

Implementation Summary

The recorded announcements that a caller hears for the various methods of DNIS implementation are as follows:

- When the interim extension is a TEG or phantom extension and the final destination is a non-ACD hunt group, no announcements are heard by the caller, even if an announcement was administered via the hunt group.
- When the interim extension is a TEG or phantom extension and the terminating destination is an ACD split, one of two situations will occur. [If a second announcement has been administered for the split, that announcement will be played for the caller. The first announcement will not be played. If a second announcement has not been administered, no announcement will be heard by the caller.
- When the interim extension is a hunt group or an ACD split and the final destination is a non-ACD hunt group, only an announcement administered at the interim extension could be played. This announcement must be administered as a forced first announcement at the interim extension.
- When the interim extension is a hunt group or ACD split and the final destination is an ACD split, a forced first announcement will be played for the interim extension and the second announcement at the final destination will be played.

Measurements

When the interim extension is an ACD split, measurement of DNIS calls can be made. The CMS for example, pegs all calls which leave the interim extension via the coverage path as overflowed calls. Therefore, a count of how many calls reached the interim extension can be made. In order to obtain an accurate count of DNIS calls, it is essential that all such calls are routed to the interim extension first. If some DNIS calls are routed directly to the terminating extension, the measurements for calls reaching the split via the DNIS service will not be accurate.

The measurement facility (CMS for example) can also provide information on whether or not the covered call was connected or whether the caller abandoned the call. From this information, the number of calls terminated and abandoned can be determined.

Hardware Requirements

DNIS via DID

Requires a port on a TN753 DID trunk circuit pack or TN767 DS1 Interface circuit pack for each DID trunk to be administered.

DNIS via Megacom 800 Service Tie Trunk Group

Requires a port on a TN760B Tie Trunk, TN722B or TN767 DS1 Tie Trunk circuit pack for each tie trunk to be administered.

DNIS via ISDN-PRI

Refer to the ISDN-PRI coverage elsewhere in this Chapter for hardware requirements.

Digital Multiplexed Interface (DMI)

The Digital Multiplexed Interface (DMI) provides for digital trunk interfaces to the System. DMI supports high volume (high speed, high capacity) data transmission via DS1 digital facilities between; host computers, another PBX, or a private or public network and analog and digital data endpoints. When ISDN-PRI signaling is used, associated trunks can be connected to host computers, another PBX, or a private or public network.

Administration

Instructions for administering the DS1/DMI interface to the System are provided in DS1/DMI Interface Manual.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
DS1 Circuit Pack	All	5-65
DMI-BOS Trunk Group	All	5-144
ISDN-PRI Trunk Group	All	5-195
Synchronization Plan	All	6-89

- DS1 Circuit Pack Form—Complete all fields. Assign ports for each trunk member to be assigned on the associated Trunk Group form.
- DMI-BOS Trunk Group Form—Complete all fields as required when using Bit-Oriented Signaling (BOS).
- ISDN-PRI Trunk Group Form—Complete all fields as required when using Message-Oriented Signaling (BOS).
- Synchronization Plan Form—Complete all fields.

Hardware Requirements

A TN722B or TN767 DS1 Tie Trunk circuit pack must be provided for trunk assignments. The circuit pack must be assigned (via a DS1 Circuit Pack form) prior to administration of DMI-BOS or ISDN-PRI Trunk Groups. If ISDN-PRI signaling is used, a TN767 must be used in conjunction with a TN765 Processor Interface circuit pack. The TN722B or TN767 provides up to 24 independent trunks. When used with common channel or ISDN-PRI signaling, 23 trunks are available for data and one trunk is used for signaling purposes.

A port is required on a TN754B Digital Line circuit pack if a Long Haul DCS is used with a high speed modem, Data Service Unit, a DATAPHONE data set, or a Local Area Data Set.

Direct Department Calling

Allows direct inward access to an answering group other than the attendant even if the system does not have the DID feature.

A Direct Department Calling (DDC) answering group can consist of voice terminals and individual attendants.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Recorded Announcements	As Required	6-198
Recorded Announcement Data Module	All	6-115
Call Coverage Paths	All	6-55
Hunt Groups	All	6-160
Trunk Groups:	Incoming Destination Night Service	
Access		5-98
APLT		5-112
CO		5-123
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264

- Recorded Announcements Form—Assign recorded announcement extension numbers, if used.
- Recorded Announcement Data Module Form—Complete all fields.
- Call Coverage Paths Form—Verify or assign Call Coverage Path for the group, if used.
- Hunt Groups Form—Complete all fields.
- Trunk Group Forms—If this feature is to be provided via DID, the assigned hunt group extension number must be accessible via DID. Enter the extension number assigned to the hunt group in the trunk group Incoming Destination and/or Night service fields.

Hardware Requirements

Requires one port on a TN742, TN746B, or TN769 Analog Line circuit pack for each Auxiliary Queue Warning lamp. A 21C-49 indicator lamp may be used as a warning lamp. This lamp is approximately two inches in diameter and has a clear beehive lens. The lamp operates on ringing voltage and can be mounted in any convenient location.

Each delay announcement requires announcement equipment and a port on a TN742, TN746B, or TN769 Analog Line circuit pack. If music is to be provided after the delay announcement, a music source and a port on the TN76C Auxiliary Trunk circuit pack is also required. The announcement and music equipment are not provided as part of the System equipment.

Refer to the Recorded Announcements and Trunk Groups features for additional administration and hardware requirements.

Direct Inward Dialing (DID)

Connects calls from the public network directly to the dialed extension number without attendant assistance.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Direct Inward Dialing Trunk Group	All	5-156

- DID Trunk Group Form—Verify or complete all fields.

Hardware Requirements

Each Group Member Assignment (DID trunk) in the DID Trunk Group requires a port on a TN753 DID Trunk circuit pack. A TN753 provides eight ports.

Direct Inward and Outward Dialing (DIOD) (International G1.2SE only)

Note: The TN429 DIOD trunk circuit pack (G1.2SE only) is used in Japan to provide a communication link between a public local exchange and a G1.2SE. DIOD is a combination of the DID feature and the CO feature. The Japanese require that both calling operations be merged on the same trunk.

Allows calls from a local exchange to be made to a subscriber on a PBX system, without connecting through the Attendant Console. The Japanese version of DID, however, implies a 2-way service, with both inward and outward dialing features. The TN429 circuit pack is an 8-port loop start trunk circuit pack and can be used in any of the following ways:

- DID trunk
- CO trunk — 2-way, 1-way, or 1-way outgoing CO trunk capability
- Direct Inward and Outward Dialing (DIOD) trunk with DID service and one-way outgoing CO trunk capability.

The TN429 supports several administrable timers and different trunk group types (DID, CO, DIOD, FX, and WATS).

Note: When the TN429 is administered, only loop-start is allowed to be entered as its trunk type.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Direct Inward and Outward Dialing	All	5-167

Hardware Requirements

- TN429 Direct Inward and Outward Trunk circuit pack International (G1.2SE only).

Direct Outward Dialing (DOD)

Allows voice terminal users by use of a Trunk Access Code to access the public network without attendant assistance.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Dial Plan	Identification/Number Of Digits for: -Local CO Trunk Group -Foreign Exchange Trunk Group -WATS Trunk Group	6-117
Trunk Groups: CO FX WATS	All	5-123 5-180 5-264

- Dial Plan Form—Verify trunk access codes for local CO, FX offices, ISDN-PRI trunk groups, and/or outward WATS.
- Trunk Group Forms—Verify or complete all fields for the applicable outgoing CO, FX offices, or WATS Trunk Group form.

Hardware Requirements

Requires a port on a TN747B Central Office Trunk or TN767 DS1 Interface circuit pack for each trunk to be assigned in the trunk group. Each TN747B provides eight ports and each TN767 provides 24 Ports.

Disconnect Supervision (International G1.1SE and G1.2SE)

Allows the system at call completion to remove resources used on a call and make them available for servicing new calls; otherwise, the resources can be used indefinitely. At international locations, it cannot always be assumed that incoming Public Network trunks will provide a disconnect supervision signal. If no parties on a call provide disconnect supervision, the call cannot be allowed, and without a guaranteed disconnect supervision a transfer operation is denied.

In the U.S., all incoming trunks are assumed to provide disconnect supervision, while an outgoing trunk is assumed never to have disconnect supervision. In international locations, public network trunks rarely provide disconnect supervision. This requires administration of incoming disconnect supervision on a trunk group basis. The second assumption (outgoing trunks never provide disconnect supervision) will be made for both standard and international locations.

The Disconnect Supervision feature adds a new Disconnect Supervision field to the trunk group forms.

Administration

To implement this feature, the following form(s) or section(s) of forms must be completed:

Form	Field	Form Instructions (Page #)
Trunk Groups:	Disconnect Supervision	
Access		5-98
APLT		5-112
Central Office		5-123
CPE		5-137
DMI-BOS		5-144
DID		5-156
DIOD		5-167
FX		5-180
ISDN-PRI		5-195
PCOL		5-217
Release Link		5-221
Tandem		5-232
Tie		5-247
WATS		5-264

Distinctive Ringing (Alerting)

Helps voice terminal users and attendants distinguish between various types of incoming calls.

Distinctive Ringing is a standard feature. No administration is required to activate it. However, Distinctive Ringing can be disabled for single-line voice terminals if required.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (single-line)	Distinctive Audible Alert	6-260
Station	Redirect Notification	6-8

- Station Forms for 500, 2500, 7101A, 7102A, 7103A, and 7104A voice terminal—Complete Distinctive Audible Alert field.
- Station Forms—Enter "y" in the Redirect Notification field to provide a half ring at the voice terminal when calls to the terminal have been redirected (via Call Coverage or Call Forwarding).

Hardware Requirements

Requires that a 500-type, 2500-type, or 7100-series voice terminal be assigned.

Distributed Communications System (DCS)

Allows a configuration (cluster) of two or more switches (nodes) to provide certain attendant and voice terminal features as if the cluster is a single large System. This simplifies dialing procedures between locations, and also allows transparent use of some of the System's features between locations.

For an example of connecting three switches in a DCS configuration using voice tie trunks and DS1 signaling, refer to the Distributed Communications System coverage in Chapter 5. Examples of completed forms are also provided.

For detailed information on DCS, refer to *AT&T Network and Data Services Reference Manual*, 555-025-201, and *AT&T System 75 Application Notes—Distributed Communications System*, 555-209-003.

Administration

The DCS option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered. In addition, when required, the UDP option must also be enabled.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Dial Plan	All	6-117
Tie Trunk Group	All	5-247
ISDN-PRI Trunk Group	All	5-195
Routing Patterns	All	5-29
DS1 Circuit Pack	All	5-65
Synchronization Plan	All	6-209
Netcon Data Module	All	6-109
Processor Interface Data Module	All	6-112
Processor Channel Assignment	All Proc Chan fields to be assigned DCS	6-194
Interface Links	Interface Links (assign DCS links)	6-175
Hop Channel Assignments	(as required)	6-152

- Dial Plan Form—Complete all fields to assign a 4- or 5-digit number for DCS and complete all applicable fields for UDP.
- Tie Trunk Group Form—Provide data links (can be DS1 or tie trunks) and voice channels. If trunk group is used for voice, enter the required number. If the trunk group is used for DS1 signaling, enter only one member in the trunk group. This one member is used to establish the link using a port on a DS1 circuit pack. Enter wink/wink in the Trunk Type field and “avd” in the Comm Type field for DS1 signaling trunk groups.
- ISDN-PRI Trunk Group Form—Used to provide voice and data paths. Assign Service Type field as “tie,” “tandem,” or “access” as appropriate.
- Routing Patterns Form—Assign routing patterns.
- DS1 Circuit Pack Form—Complete form. This form must be completed if the tie trunk is used for DCS signaling.
- Synchronization Plan Form—Complete form. This form must be completed if the tie trunk is used for DCS signaling. Assign a secondary circuit pack that the System can use if the primary circuit pack fails.
- NetCon Data Module Form—Assign NetCon physical channels as required.
- Processor Interface Data Module Form—Assign up to eight interface links using eight Processor Interface Data Module forms. Note that the single-carrier cabinet System has just four links (01 through 04) available for assignment. The interface links are assigned by entering a physical channel number from 01 through 08 in the Physical Channel field. One Processor Interface Data Module form must be completed for each interface link.
- Processor Channel Assignment Form—Enter the DCS link numbers and then assign associated channel numbers to each link. Complete all fields of the form as required.
- Interface Links Form—Assign the DCS link numbers one through eight for a multi-carrier cabinet System as required. Assign Link 1 if the Processor Interface jack (located on the back of the Control Cabinet) is used for the DCS interface to the switch. Assign links 1 through 4 for a single-carrier cabinet System as required. Complete all fields on the form as required. Enter a TAC or extension number in the Destination field when used to route DCS signaling data.
- Hop Channel Assignments Form—Identify the link numbers and associated channels that are to be assigned as “hop” channels in the DCS. Complete all fields of the form as required.

Note: To provide 4- or 5-digit dial plan among a group of switches, refer to the UDP feature and complete all forms as indicated.

Hardware Requirements

Requires a TN765 Processor Interface circuit pack if not already provided. A DCS data link may be assigned to a vacant channel on a TN722B Tie Trunk or TN767 DS1 Interface circuit pack or a vacant port on TN754B Digital Line circuit pack.

Do Not Disturb

Allows guests, attendants, and authorized front desk voice terminal users to request that no calls, other than priority calls, terminate at a particular extension number until a specified time. At the specified time, the system automatically deactivates the feature and allows calls to terminate normally at the extension.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Feature Button Assignments -dn-dst -ext-dn-dst -grp-dn-dst	6-32
Station (multi-appearance)	Button/Feature Button Assignments -dn-dst -ext-dn-dst -grp-dn-dst	6-245
Feature Access Codes for Hospitality Features	Voice Do Not Disturb Access Code	6-127
Feature-Related System Parameters	Controlled Termination Restriction (Do Not Disturb)	6-133

- Attendant Console Form—Assign do not disturb feature buttons.
- Station Forms—Assign dn-st, ext-dn-st, and grp-dn-dst feature buttons as required to appropriate voice terminals.
- Feature Access Codes for Hospitality Features Form—Assign a feature access code to the Voice Do Not Disturb Access Code field.
- Feature-Related System Parameters Form—Assign the type of intercept treatment (that is, intercept tone, recorded announcement, call coverage, or attendant) the caller will receive when the call is placed to a termination restricted (Do Not Disturb active) voice terminal.

Hardware Requirements

A TN725B Speech Synthesizer circuit pack is required if voice prompting is used. Each circuit pack has four ports to provide voice prompting.

DS1 Tie Trunk Service

Provides a set of digital trunks that support voice and data communications.

Refer to Chapter 5 for additional information on DS1 Tie Trunk Services including a listing and description of each type of trunk supported.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
DS1 Circuit Pack	All	5-65
Trunk Group		
Access	All	5-98
APLT	All	5-112
DMI-BOS	All	5-144
ISDN-PRI	All	5-195
RLT	All	5-221
Tandem	All	5-232
Tie		5-247
Synchronization Plan	All	6-209

- DS1 Circuit Pack Form—Assign the circuit pack to the System before the administration of the associated trunks
- Trunk Group Forms—Associate trunk members to groups, as required.
- Synchronization Plan Form—Complete all fields.

Hardware Requirements

A TN767 DS1 circuit pack must be used when supporting ISDN-PRI services. One TN722B or TN767 DS1 Tie Trunk circuit pack is required for every 24 DS1 tie trunks when using Robbed Bit Signaling or for every 23 trunks when using Common Channel or ISDN-PRI signaling. If ISDN-PRI signaling is used, a TN765 Processor Interface circuit pack is required in addition to the TN767 DS1 circuit pack. A TN768 Tone Clock circuit pack is required to provide synchronization for the DS1 tie trunks.

EIA Interface

Provides an alternative to DTDMs and MPDMS within the System hardware, for interconnection between EIA 232 compatible DTE and the System. The EIA Interface consists of a Data Line circuit pack port and an ADU.

Figure 4-12 shows a typical EIA interface connection.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -data-ext (Ext:_)	6-245
Data Line Data Module	All	6-69

- Station Forms—Assign Data Extension (data-ext) buttons to multi-appearance voice terminals.
- Data Line Data Module Form—Assign a vacant port and complete the Capabilities and Options fields.

The following permissions can be administered on a data line port to allow DTEs to be used.

- Keyboard Dialing (KYBD)—Must be set to allow data endpoints to receive and send text during data call origination or termination. Text prompts are provided.
- Configuration—Must be set to allow DTEs to change their data module options; that is, examine and change options, such as speed, from the DTE. Keyboard Dialing permission must be granted first.
- Busy Out—Should be set for DTEs that are members of a hunt group, and to allow “busy out” (when DTE turns power off) so that calls will not terminate on that DTE.

The following options can be examined and changed from the DTE if the “configuration” permission has been granted:

- Speed—All speeds (up to 19.2 kbps) at which the DTE can operate are selectable, including Autoadjust. Autoadjust is the capability of the data line port to determine what speed and parity the associated DTE is transmitting at and match it for terminal dialing and/or text feedback purposes.
- Parity—All choices of parity (even, odd, mark, or space) can be selected.
- Permit Mismatch—The EIA Interface may be operated at a higher transmission speed rate than the rate between the Data Line circuit and the far end data module. This allows for calls between digital endpoints with different speeds without changing the speed of the DTE.

- Dial Echoing—Can be set to echo typed characters back to the DTE during dialing.
- Disconnect—Set the signal to indicate “disconnect.” Choices are one break greater than two seconds or two breaks within one second.
- Answer Text—Can be selected when DTE is an intelligent device, to allow text messages to be delivered to the DTE when a call is being answered; also, applies to text generated by the data line circuit and received from the System. The following call progress messages may be answered:
 - INCOMING CALL
 - PLEASE ANSWER
 - TRANSFER
 - FORWARDED
 - ANSWERED
 - ABANDONED
 - DISCONNECTED
 - OTHER END
- Connected Indication—can be set to allow the text “CONNECTED SPEED= XXXX” to be sent to the DTE when the data call has been established.
- Other Characteristics—The Data Line circuit always operates in automatic answer (provided the DTE is on), asynchronous, and full duplex modes. The “Loss of Carrier Disconnect” is set to off; that is, the Data Line circuit, unlike other data modules, does not disconnect upon loss of EIA updates in the previous four seconds.

Hardware Requirements

Requires an ADU and a port on a TN726B Data Line circuit pack for each interface to be provided. A TN726B provides eight ports.

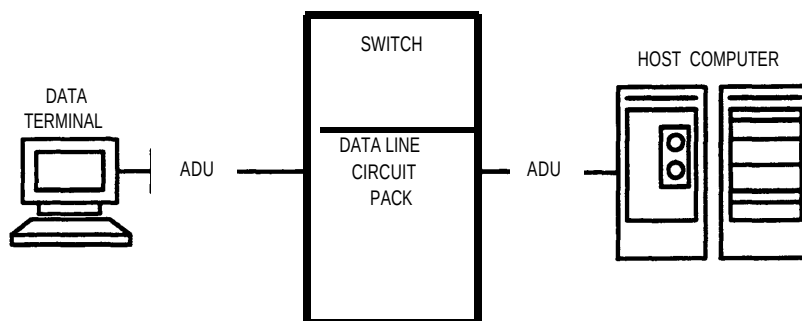


FIGURE 4-12. Typical EIA Interface

Emergency Access to the Attendant

Provides for emergency calls to be placed to an attendant. These calls can be placed automatically by the system or can be dialed by system users. Such calls can receive priority handling by the attendant.

Administration

The Emergency Access to Attendant option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Note: At least one attendant console must be administered before activating this feature.

Form	Field	Form Instructions (Page #)
Class of Service	Off-Hook Alert	6-77
Feature-Related System Parameters	Emergency Access Queue Length	6-133
	Time Before Off-Hook Alert	
	Redirection Extension on Full Emergency Access Queue	
	Time of Scheduled Emergency Access Activity Report	6-154
Hospitality-Related System Parameters	Extension of Journal/Schedule Printer	
Attendant Console	Feature Button Assignments -em-acc-att	6-32
Feature Access Codes for Hospitality Features	Emergency Access To Attendant Access Code	6-132

- COS Form—Assign correct permission to access Off-Hook Alert.
- Feature-Related System Parameters Form—Assign the number of calls that can go in the emergency queue. Assign the time, in seconds, a voice terminal with an off-hook alert class of service can remain off-hook before an emergency call for the voice terminal is sent to the attendant. Assign the extension number where emergency queue overflow will redirect.
- Hospitality-Related System Parameters Form—Assign time for scheduled emergency access activity report.

- Attendant Console Form—Assign emergency access feature button (em-acc-att).
- Feature Access Codes for Hospitality Features Form—Assign access code to the Emergency Access To Attendant Access Code field.

Hardware Requirements

Requires a 301A Basic or 302A Enhanced Attendant Console if a unique Emergency tone is required at the console, otherwise, normal ringing is heard for an emergency call and the attendant display flashes.

Enhanced Terminal Administration

Provides for the administration of new terminals that are not supported by the System's software. Administration information associated with terminals that are supported (that is, MET sets, 7100 series, 7400D series, etc.) is provided at the end of this chapter. For any new terminal types, the Enhanced Terminal Administration (ETA) feature allows the new terminal to be "mapped" to an existing or supported type. The mapping does not guarantee set compatibility. It does allow non-supported types to be administered and tracked by their own unique names. The administration commands that are used to display station set types and to obtain help messages will include the new set types.

The administrator must refer to customer set-type documentation for supported types and terminal manuals for non-supported types to avoid set type mismatches between the new terminal and the supported set-type. In particular, the protocol used by the new terminal (for example, analog, DCP, hybrid) must match the protocol used by the terminal to which it is mapped. For example DCP type terminals, such as the 7400D series, must be matched to existing DCP set types.

Administration

To administer a new voice terminal-type not supported by a system form, the following form must be completed.

Form	Field	Form Instructions (Page #)
Alias Station	All	6-27

Hardware Requirements

None.

Facility and Non-Facility Associated Signaling

Facility Associated Signaling (FAS) allows an ISDN DS1 Interface D-Channel to carry signaling information for only those B-Channels located on the same DS1 facility (circuit pack) as the D-Channel.

Non-Facility Associated Signaling (NFAS) allows an ISDN DS1 Interface D-Channel (signaling channel) to convey signaling information for B-Channels (voice and data channels) on ISDN-PRI DS1 facilities other than the one containing the D-Channel. As a result, a D-Channel can carry signaling information for numerous B-Channels located on different DS1 facilities.

In addition, to improve reliability in the event of a signaling link failure, a signaling channel (D-Channel Backup) may be administered. If a signaling link failure does occur, a switch to a backup signaling channel (D-Channel) can be implemented.

D-Channel Backup requires that one D-Channel be administered as the Primary D-Channel and that a second D-Channel be administered as the Secondary D-Channel. These assignments ensure that at certain times during the D-Channel back-up process, that each switch at each end of the interface select the same D-Channel. In these cases, the Primary D-channel is given precedence over the Secondary D-Channel.

Immediately following the administration instructions, an example is provided for administering a FAS/NFAS interface.

Administration

Refer to the ISDN-PRI coverage in this chapter for a complete listing of forms and fields on forms to be completed for ISDN-PRI applications.

The following provisioning and administration must be considered when implementing FAS, NFAS, and D-Channel backup. Coordinate the following with the far-end switch for the DS1 facilities to be used:

- Decide which DS1 facilities will use FAS.
- Decide which of the remaining DS1 facilities will carry D-Channel signaling information on the 24th channel. For those channels that have a D-Channel Backup, D-Channel pairs must be allocated.
- Define Signaling Groups (1 through 8). Each Signaling Group must be designated as either an FAS or NFAS Signaling Group.
 - A FAS Signaling Group must contain all the ISDN B-Channels on the DS1 interface associated with the group's D-Channel, and cannot contain B-Channels from any other DS1 circuit pack. Some of the DS1 ports may use in-band (robbed-bit) signaling and be members in a tie trunk group rather than an ISDN trunk group. These tie trunks cannot be members of a Signaling Group.
 - There is no restriction on which DS1 ports can belong to a NFAS Signaling Group. Normally, an NFAS Signaling Group would consist of one or two D-Channels and several complete DS1 interfaces as shown in Figure 4-13.

Note that if a Signaling Group contains only a subset of a DS1's B-Channels (ports 1 through 12 for example), it is considered an FAS Signaling Group, not an NFAS Signaling Group. The remaining B-Channels on the DS1 would then be assigned as members of another NFAS Signaling Group.

- An Interface ID must be assigned to each DS1 facility in a NFAS Signaling Group. For example, if the B-Channels in a Signaling Group span three DS1 facilities, a unique interface ID must be assigned to each of the three DS1 facilities.
- D-Channel Backup involves two or more ISDN-PRI DS1 facilities that interconnect the switch to another PBX or to the network. Two D-Channels must be present on the facilities. One of the D-Channels is designated as Primary and the other as Secondary. This designation must be agreed upon by both sides of the interface and administered prior to initialization. The purpose of this designation is to resolve glare situations between the two D-Channels.

To implement FAS/Non-FAS and/or D-Channel Backup, the following form must be completed:

Form	Field	Form Instructions (Page #)
Signaling Group	All	5-84

- Signaling Group Form—Up to eight Signaling Groups (that is, forms) can be assigned. Complete all fields as required.

Note that the use of the DS1 circuit pack form and other related ISDN-PRI forms for implementation of an ISDN-PRI interface are described in the ISDN-PRI feature coverage.

Hardware Requirements

Refer to the ISDN-PRI feature coverage.

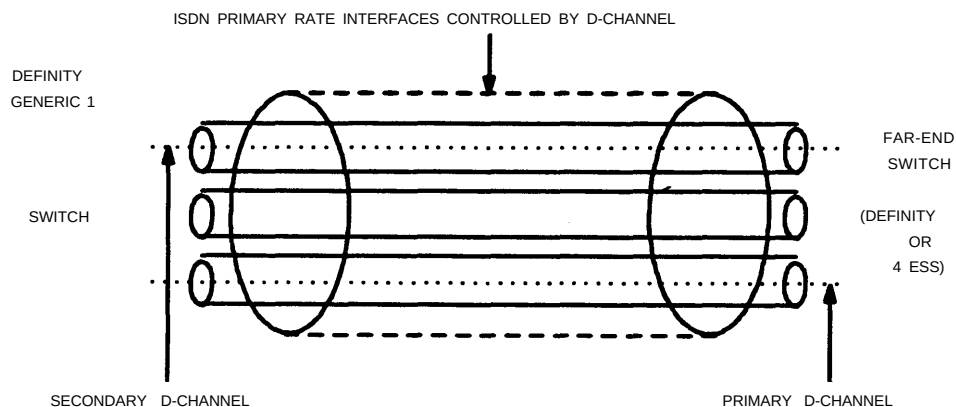


FIGURE 4-13. Example D-Channel Backup With Three ISDN-PRIs

The following examples describe the DS1 interface configuration shown in Figure 4-13 for NFAS. The examples make use of key forms associated with implementation of the ISDN-PRI feature described elsewhere in this chapter in addition to the use of the Signaling Group form. Refer to the ISDN-PRI coverage for additional information associated with implementing ISDN-PRI. When implementing FAS and NFAS, the DS1 form must be submitted first, followed by the Interface Link and associated forms followed by the ISDN-PRI trunk group form.

Note that the Interface Link and associated forms may be administered at any time after the DS1 forms have been administered, with the following restrictions:

- A D-Channel cannot be assigned on a Signaling Group form unless the associated link is disabled
- A trunk member cannot be assigned unless its associated Signaling Group has been administered.

For each DS1 circuit pack, the Signaling Mode must be specified. Currently the options are “common-channel” (default), “robbed-bit,” “isdn-pri,” or “isdn-ext.” The “isdn-ext” entry is used to indicate that the circuit pack uses ISDN (mixed) signaling, but that the 24th port on the circuit pack will not be used as a D-Channel. All trunks on this circuit pack will be signaled using either inband robbed-bit signaling, or by a D-Channel on another DS1 circuit pack. The following DS1 screen form shows the fields that are displayed when “isdn-ext” is entered.

Page 1 of 1

DS1 CIRCUIT PACK

Location: <u>1B17</u>	Name: _____
Line Compensation: <u>1</u>	Zero Code Suppression: <u>b8zs</u>
Framing Mode: <u>esf</u>	Signaling Mode: <u>isdn-ext</u>

MAINTENANCE PARAMETERS

Slip Detection? <u>n</u>	Remote Loop-Around Test ? <u>n</u>

SCREEN 4-18. DS1 Circuit Pack Form (Signaling Mode = “isdn-ext”)

Next, Signaling Groups are administered using Signaling Group forms.

Page 1 of 1

SIGNALING GROUP

Group Number : 1 Associated Signaling? n Max number of NCA TSC: 0
 Primary D-Channel: 1B1524 Max number of CA TSC: 0
 Secondary D-Channel: 1B1624 Trunk Group for NCA TSC: _

	Trunk Brd	Interface ID		Trunk Brd	Interface ID
1:	<u>1B15</u>	<u>1</u>	11.	_____	—
2:	<u>1B16</u>	<u>2</u>	12.	_____	—
3:	<u>1B17</u>	<u>2</u>	13.	_____	—
4:	_____	—	14.	_____	—
5:	_____	—	15.	_____	—

SCREEN 4-19. Signaling Group Form (Group 1)—D-Channel Backup, Three DS1 Interfaces

Page 1 of 1

SIGNALING GROUP

Group Number : 2 Associated Signaling? n Max number of NCA TSC: 0
 Primary D-Channel: 1B1824 Max number of CA TSC: 0
 Secondary D-Channel: _____ Trunk Group for NCA TSC: _

	Trunk Brd	Interface ID		Trunk Brd	Interface ID
1:	<u>1B17</u>	<u>17</u>	11 .	_____	—
2:	<u>1B18</u>	<u>18</u>	12 .	_____	—
3:	_____	—	13 .	_____	—
4:	_____	—	14 .	_____	—
5 :	_____	—	15 .	_____	—

SCREEN 4-20. Signaling Group Form (Group 2)—No D-Channel Backup, Two DS1 Interfaces

SIGNALING GROUP		Page 1 of 1
Group Number : <u>3</u>	Associated Signaling? <u>y</u>	Max number of NCA TSC: 0
	Primary D-Channel: <u>1B1924</u>	Max number of CA TSC: 0
		Trunk Group for NCA TSC:—

SCREEN 4-21. Signaling Group Form (Group 3)—Facility Associated Signaling

Note in the three previous screen displays:

- Signaling Group 1 B-Channels on DS1 circuit packs (boards) B15 and B16 are signaled by D-Channel pair B1524 (see Primary D-Channel field) and B1624 (see Secondary D-Channel field).
- Signaling Group 2 B-Channels on board B18 are signaled by D-Channel B1824.
- Board B17 has no D-Channel. The B-Channels on board B17 can be signaled by either D-Channel pair B1524/B1624 (Signaling Group 1) or D-Channel B1 824 (Signaling Group 2) .
- The DS1 interface on board B19 (Signaling Group 3) is an FAS case. Note that the Secondary D-Channel and Trunk Board/Interface ID fields are not displayed when the Associated Signaling field is "y."

The following two communications-interface forms must be completed for the ISDN-PRI interface:

- Interface Links Form—Used to create an association between the D-Channel on a DS1 circuit pack and the port on a TN765 Processor Interface circuit pack used for this link.
- Processor Channels Form—Used to assign processor channels to the link administered on the Interface Links form.

Finally, trunk ports are added to the ISDN-PRI trunk group and to Signaling Groups.

GROUP MEMBER ASSIGNMENTS				Page 3 of 9
	Port	Name	Night	Sig Grp
1:	<u>1B1501</u>	_____	_____	
2:	<u>1B1523</u>	_____	_____	
3:	<u>1B1601</u>	_____	_____	
4:	<u>1B1623</u>	_____	_____	
5:	<u>1B1701</u>	_____	_____	<u>1</u>
6:	<u>1B1709</u>	_____	_____	<u>1</u>
7:	<u>1B1716</u>	_____	_____	<u>2</u>
8:	<u>1B1724</u>	_____	_____	<u>2</u>
9:	<u>1B1801</u>	_____	_____	
10:	<u>1B1823</u>	_____	_____	
11:	<u>1B1901</u>	_____	_____	
12:	<u>1B1923</u>	_____	_____	
13:	_____	_____	_____	
14:	_____	_____	_____	
15:	_____	_____	_____	

SCREEN 4-22. ISDN-PRI Trunk Group Form—Trunk Members with Required Signaling Group Numbers Shown

The Sig Grp column on the above trunk group form is completed as follows:

- If a DS1 interface appears in one and only one Signaling Group, then the Sig Grp field may be left blank.
- If a DS1 circuit pack appears in more than one Signaling Group, then the Signaling Group numbers must be entered in the appropriate fields before submitting the form.

For FAS and NFAS implementation, the following signaling/configurations are supported for far-end 4ESS switch and DEFINITY Communications System Generic 2 switches:

- FAS <-----> 4ESS Simplex
- NFAS (no Secondary D-Channel) <-----> 4ESS Simplex
- NFAS (with Secondary D-Channel) <-----> 4ESS Duplex
- FAS <-----> DEFINITY Generic 2 FAS (no D-Channel Group assigned)
- FAS <-----> DEFINITY Generic 2 NFAS (D-Channel Group with no backup)
- NFAS (no Secondary D-Channel) <-----> DEFINITY Generic 2 NFAS (no D-Channel Group assigned)
- NFAS (no Secondary D-Channel) <-----> DEFINITY Generic 2 NFAS (D-Channel Group with no backup)
- NFAS (with Secondary D-Channel) <-----> DEFINITY Generic 2 NFAS (D-Channel Group with backup)

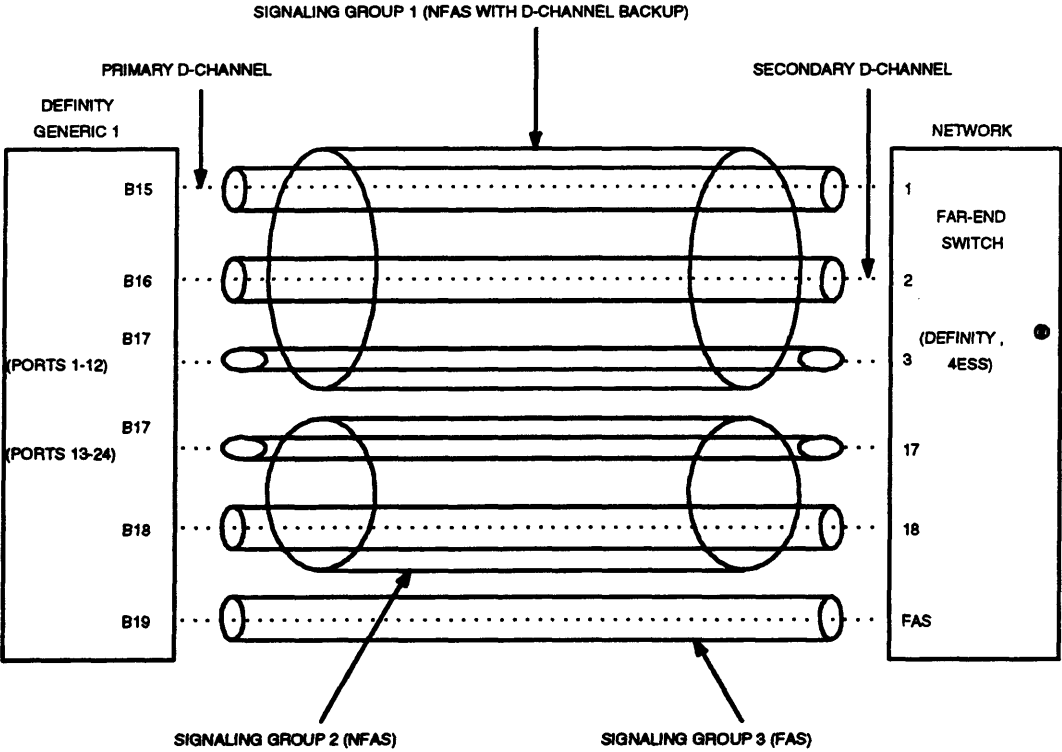


FIGURE 4-14. Example DAS/NFAS Interface Configurations With Interface IDs

Facility Busy Indication

Provides multi-appearance voice terminal users with a visual indication of the busy or idle status of an extension number, a trunk group, terminating extension group, a hunt group (DDC or UCD group), or any loudspeaker paging zone, including all zones. The Facility Busy Indication button provides the voice terminal user direct access to the extension number, trunk group, or paging zone. Note that the Facility Busy lamp indication for a VDN is always off (that is, dark). The associated button may be used to place a call to a VDN.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -busy-ind	6-6
Attendant Console	Feature Button Assignments -busy-ind	6-32

- Station Forms—Assign "busy-ind" to a voice terminal button.
- Attendant Console Form—Assign "busy-ind" feature button.

Hardware Requirements

None.

Facility Restriction Levels and Traveling Class Marks

Provides up to eight levels of restriction for users of the AAR and/or ARS features.

Administration

The Private Networking and ARS options must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	FRL	6-72
Routing Patterns	FRL (0-7)	5-29

- COR Form—Assign originating FRLs.
- Routing Patterns Form—Assign terminating FRLs.

FRL and TCM Guidelines and Examples

The examples given here are designed to help understand FRLs and to illustrate some of the practical aspects of FRLs. These are, however, only examples. In reality, each System must be administered to meet individual needs.

FRLs on the terminating end of a call are not checked unless the terminating facility is a trunk group. This simplifies assignments. At each switch, the trunk groups available to handle a given call must be listed in the preferred order within the Routing Pattern. The most-preferred choice must be at the top of the list. Up to six choices can be specified. Access to each of the listed trunk groups must be determined. This, of course, is specified via an FRL. On a scale of 0 through 7, the relative value is determined and assigned. Decisions are normally based on the cost of using the facility, although other criteria can be used. The same FRL value can be assigned to more than one trunk group if there is no reason to prefer one trunk group over the other.

If some users within the System are not allowed to make outside calls, use a value other than 0 as the value for the first-choice trunk group. By assigning these users an FRL of 0, none of the trunk groups can be accessed (since all trunk group FRLs will be greater than 0). Such calls are denied.

Each Routing Pattern must be individually constructed. The same trunk group can be used in more than one pattern. The associated FRL is assigned within the pattern and is not associated with the trunk group itself. The same trunk group can have a different FRL in a different pattern.

Be consistent in FRL assignments. Do not use a range of 0 through 5 in one pattern and a range of 2 through 7 in another pattern if all users can access the first-choice route. Admittedly, the trunk group with an FRL of 2 may be more expensive than the trunk group with an FRL of 0, but there is no real reason to assign a 2 to a trunk group that everyone can access. For ease of assignments, always use a 0 for such a trunk group.

A COR should be established for each FRL used in a Routing Pattern. The appropriate COR is then assigned to the users who can access the routes restricted by the FRL value. For example, a middle executive might be able to access all routes with an FRL of 5 or lower, whereas the president can access all routes. In this case, the executive is assigned a COR with an FRL of 5 and the president is assigned a COR with an FRL of 7.

Remote Access users can access the System's features and services the same as an on-premises user. FRL assignment is via Remote Access Barrier Codes. Up to 10 Barrier Codes, each with its own COR (and FRL), can be assigned. Although the COR defines other restrictions, 10 Barrier Codes are enough to also provide a range of FRL assignments. Assignment of Barrier Code FRLs is the same as if the user were on-premises. The simplest way to assign these FRLs is to duplicate the on-premises FRLs, and then merely relate the appropriate Barrier Code to those that will be using Remote Access.

FRLs apply only on ARS and AAR calls. If SMDR 15-digit account codes are used, the FRL field in the SMDR record is overwritten.

The following is an example of how FRLs can be assigned:

- **FRL0**— No outgoing calls
- **FRL1**— Local calls only
- **FRL2**— FRL1 plus the home area code calls using WATS
- **FRL3**— FRL2 plus the use of local lines for all calls in the home area code
- **FRL4**— FRL3 plus the calls to all the U.S.A., using WATS only
- **FRL5**— FRL4 plus the calls to all the U.S.A., using local lines
- **FRL6**— FRL5 plus the international calls
- **FRL7**— Reserved for a spare

Hardware Requirements

None.

Facility Test Calls

Provides a voice terminal user with the capability of making test calls to access specific trunks, touch-tone receivers, time slots, and system tones. The test call is used to make sure the facility is operating properly. A local voice terminal user can make a test call by dialing an access code. An INADS terminal user can also make test calls.

Note: AT&T has designed the Facility Test Calls feature incorporated in this product that, when properly administered by the customer, will enable the customer to minimize the ability of unauthorized persons to gain access to the network. It is the customer's responsibility to take the appropriate steps to properly implement the features, evaluate and administer the various restriction levels, protect access codes and distribute them only to individuals who have been advised of the sensitive nature of the access information. Each authorized user should be instructed concerning the proper use and handling of access codes.

In rare instances, unauthorized individuals make connections to the telecommunications network through use of test call features. In such event, applicable tariffs require that the customer pay all network charges for traffic. AT&T cannot be responsible for such charges, and will not make any allowance or give any credit for charges that result from unauthorized access.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Facility Test Calls Access Code	6-127
Class of Restriction	Facility Access Trunk Test	6-72
Station (multi-appearance)	Button/Feature Button Assignments -trk-ac-alm	6-245

- Feature Access Codes Form—Assign the "Facility Test Calls Access Code."
- COR Form—Enter "y" in the Facility Access Trunk Test (FAT) field to allow FAT calls from facilities assigned the associated COR.
- Station (Multi-appearance) Form—Assign a "trk-ac-alm" feature button if required. The associated status lamp lights when a successful FAT call has occurred. Pressing the button when the status lamp is lighted will turn off all trk-ac-alm lamps administered in the System.

Hardware Requirements

None.

Forced Entry of Account Codes

Requires users to dial an account code when making certain types of outgoing calls.

Administration

The Forced Entry of Account Codes (FEAC) option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

For All Toll Calls via ARS or a Trunk Access Code (TAC):

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Forced Entry of Account Codes for Calls Marked on Toll Analysis Form SMDR Account Code Length	6-133
Toll Analysis	Dialed String, Min, Max, SMDR FEAC	6-216

- Feature-Related System Parameters Form—Enter "y" in the FEAC For Calls Marked on Toll Analysis field to indicate that an account code must be entered when making a call. Complete the SMDR Account Code Length field.
- Toll Analysis Form—Complete entries for the Dialed String, Min, and Max fields if the Dialed String is not already on form and enter "x" in the SMDR FEAC field for each dialed string to be marked as a call associated with the FEAC feature.

For Toll Calls Made By A Particular Group of Users (via ARS or a TAC):

Form	Field	Form Instructions (Page #)
Class of Restriction	Forced Entry of Account Codes	6-72
Call Originating Facility (for example, station, data module, etc.)	COR	6-245
Toll Analysis	Dialed String, Min, Max, SMDR FEAC	6-216

- COR Form—Assign "y" to the Forced Entry of Account Codes field on each appropriate COR form.
- Call Originating Facility Forms—Assign the appropriate COR (Forced Entry of Account Codes field = "y") to each station, data module, etc., form as required.

- Toll Analysis Form—Complete appropriate lines on the form for each dialed string to be associated with the FEAC feature. For each line, complete the Dialed String, Min, and Max fields if the Dialed String is not already on form and enter "x" in the SMDR FEAC field for each dialed string to be marked as a call associated with the Forced Entry of Account Code feature.

For All Calls Routed Over A Particular Trunk Group (TAC calls only):

Form	Field	Form Instructions (Page #)
Class of Restriction	Forced Entry of Account Codes	6-72
Trunk Group	COR	5-92

- Class of Restriction Form—Assign "y" to the FEAC field on each appropriate COR form.
- Trunk Group Forms—Assign the appropriate COR (FEAC field = "y") to each Trunk Group form as required.

Hardware Requirements

None.

Foreign Exchange (FX) Trunk Group

A Foreign Exchange (FX) Trunk Group provides for trunk connections between the System and a distant central office.

Administration

To assign an FX Trunk Group, the following form must be completed.

Form	Field	Form Instructions (Page #)
Foreign Exchange Trunk Group	All	5-180
Digit Absorption	All	6-125

- FX Trunk Group Form—Complete all fields.
- Digit Absorption Form—If required, complete this form when the far-end central office is a step-by-step office. The Digit Absorption List field on the FX trunk group must reference the Digit Absorption List number entered on the form.

Hardware Requirements

A port is required on a TN747B CO Trunk or TN767 DS1 Interface circuit pack for each trunk to be assigned. A TN747B provides eight ports and a TN767 provides 24 ports.

Generalized Route Selection

Enhances the AAR and ARS features by providing additional parameters to be considered in the routing decision. Optimal routing of voice and data calls is supported.

For a detailed description of the GRS feature, refer to the *DEFINITY® Communications System Generic 7 and Generic 3i—Feature Description*, 555-230-201.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (non-ISDN endpoints) (Station Data Module Page)	ITC	6-245
Station (BRI) (Station Data Module Page)	Default ITC	6-245
Data Module (non-ISDN endpoints) (pdm, data-line, netcon, or tdm types)	ITC	6-83
Data Module (BRI)	Default ITC	6-84
Trunk Group	BCC ITC	
Access		5-98
CO		5-123
FX		5-180
Tandem		5-232
Tie		5-247
WATS		5-247
Access Endpoint	ITC	6-18
Routing Patterns	IXC BCC ITC BCIE Service/Feature Band	5-29

- Station Form (non-ISDN endpoints)—The Information Transfer Capability field is not available for voice-only stations and BRI stations. The default of this field is set to "restricted." The system administrator may change the value of this field to either "restricted" or "unrestricted."
- Station Form (BRI stations)—The Default ITC field is only used to administer the Information Transfer Capability for BRI Administered Connections. The default value of this field is "restricted." The system administrator may change the value of this field to either "restricted" or "unrestricted."
- Data Module Form (non-ISDN endpoints)—The ITC field is administrable only if the data module is of the pdm, data-line, netcon, or tdm type. The default value of this field is "restricted." The system administrator may change the value of this field to either "restricted" or "unrestricted."
- Data Module Form (BRI data modules)—The Default ITC field is only used to administer the Information Transfer Capability for BRI Administered Connections. The default value of this field is "restricted." The system administrator may change the value of this field to either "restricted" or "unrestricted."
- Trunk Group Forms—The ITC field is for non-ISDN trunk group forms only and is displayed and administrable only if the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0." The default value of this field is "restricted." The system administrator may change the value of this field to either "restricted" or "unrestricted." The BCC field does not appear for ISDN-PRI trunk groups.
- Access Endpoint Form—The ITC field is displayed and administrable only if the Comm Type field is set to "56K-data" or "64K-data." The field is not available for access endpoints where the comm type field is set to "voice." The default value of the ITC field is "restricted." The system administrator may change the value of this field to either "restricted" or "unrestricted."
- Routing Pattern Form—The changes on this form are only available if the ISDN-PRI option has been set to "y" (yes) on the System-Parameters Customer-Options Form. The system administrator may change the value of this field to either "rest," "unre," or "both." The default value of this field is "rest." If the ITC is administered as "both," the BCIE field is displayed and administerable. The system administrator may change the value of the BCIE field to either "ept" (endpoint) or "unr." The default for the BCIE field is "ept" (endpoint).

Hardware Requirements

None.

Go to Cover

Allows users, when making a call to another internal extension, to send the call directly to coverage. Note that Go to Cover cannot be activated for calls placed to a VDN extension.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -goto-cover	6-245

- Station Forms—Assign a Go to Cover (goto-cover) button.

Hardware Requirements

None.

Hold

Allows terminal users to disconnect from a call temporarily, use the voice terminal for other call purposes, and then return to the original code.

Administration

To administer this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Answer Hold-Unhold	6-127

- Feature Access Codes Form—Assign an access code to the Answer Hold-Unhold field.

Hardware Requirements

None.

Hospitality Services

A System with the Hospitality option enabled and Hospitality Parameter Reduction disabled on the System-Parameters Customer-Options form provides all System capabilities and supports all types of customers. A System with both the Hospitality and Hospitality Parameter Reduction options enabled provides reduced System parameters that have a major impact on essential System features used by non-lodging customers. The Hospitality features set (Auto Wakeup, Do Not Disturb, PMS) is the same on both packages.

The parameters that are reduced when the Hospitality Parameter Reduction option is enabled is shown in Table 4-F. The Standard or Current Package and reduced (New Package) and associated maximums with each parameter are shown.

TABLE 4-F. Hospitality Parameter Reduction

Parameter	Standard Package	Reduced Package
Trunks	400	50
Hunt Groups	99	5
Pickup Groups	400	5
Call Coverage Paths	600	5

Administration

Both Hospitality and Hospitality Reduced Parameters options must be enabled on the System-Parameters Customer-Options form for a Reduced Parameters System. In addition, associated hospitality parameters must be administered on the Hospitality-Related System-Parameters form (instructions provided in Chapter 6).

Hardware Requirements

None.

Hot Line Service

Allows single-line voice terminal users, by simply lifting the handset, to automatically place a call to a preassigned extension number, public or private network telephone number, or feature access code.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (single-line)	Hot Line Destination Number and Dial Code Abbreviated Dialing (List 1, 2, 3)	6-260
Abbreviated Dialing 7103A List	Dial Code (hot line destination)	6-16
Abbreviated Dialing System List	Dial Code (hot line destination)	6-13
Abbreviated Dialing Group List	Dial Code (hot line destination)	6-8
Abbreviated Dialing Personal List	Dial Code (hot line destination)	6-11
Abbreviated Dialing Enhanced List	Dial Code (hot line destination)	6-2
Data Modules	Special Dialing Option Hot Line Destination AD List	
Data Line		6-89
MPDM/MTDM		6-105
Netcon		6-109
Processor Interface		6-112

- Station Forms—On associated Voice Terminal forms, complete the Hot Line Destination field to specify the list entry containing the Hot Line Destination. Complete Abbreviated Dialing List 1, 2, 3 field.
- Abbreviated Dialing List Forms—Assign the Hot Line Destination to the Abbreviated Dialing list.
- Data Module Form—Complete the Special Dialing Option field as "hot-line" where required. Complete the Hot Line Destination Abbreviated Dialing Code field.

Hardware Requirements

None.

Hunting

Checks for the active or idle status of extension numbers in one or more ordered groups. If all members of a group are active, the call can route to another group through Call Coverage or can wait in a queue for an available group member, if a queue is provided.

Refer to ACD DDC, UCD, or Call Coverage. Hunting is implemented via these features, either singularly or in combination with each other.

Inbound Call Management

Provides automated handling of incoming calls to ACD splits such as telemarketing centers to increase ACD agent efficiency and tracking. ACD agent terminal displays can be automated and associated with new and transferred calls and assist calls to a supervisor. Incoming call information such as CPN, BN, and DNIS may be displayed on the terminal. Calls can terminate on an ICM adjunct such as a CONVERSANT voice system, and the adjunct, using CallVisor ASAI 3rd party call capabilities, can route the call accordingly. Or, for example, the adjunct can:

1. Perform a data base search on the caller information (that is, CPN/BN) or call prompter-collected digits
2. Retrieve caller data to display on a selected agent's screen based on the service dialed (that is, DNIS).

An ASAI link between the ICM adjunct and the switch allows the adjunct to:

1. Control incoming calls
2. Control the routing

If optioned, Direct Agent Calling (DAC) allows the adjunct to direct a call to a particular ACD agent when required and have the call treated as an ACD call.

Administration

The ACD, ASAI, and appropriate ASAI Capability Groups options must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

Note: The ASAI Capability Groups are automatically defaulted to "y" when the ASAI interface option is enabled.

In addition, if Call Vectoring is to be used with this feature, the Vectoring (Basic) and/or Vectoring (Prompting) options must also be enabled.

In addition to the following administration requirements, refer to the ACD, Call Vectoring, Call Prompting, and CallVisor ASAI features (this chapter) for associated administration requirements. Figure 4-7 (provided with the CallVisor ASAI feature coverage) shows the system connections required for an adjunct ICM application.

To implement this feature, the following form(s) or section(s) of forms must be completed:

Form	Field	Form Instructions (Page #)
Trunk Group (ISDN-PRI)	Per Call CPN/BN	5-195
Hunt Groups	Group Type Message Center ACD Queue Queue Length First Announcement Delay	6-160
Class of Restriction	Direct Agent Calling	6-72
Call Vector	All	6-61
Station (agent stations)	All	6-245
Station	ASAI Interface	6-245

- **Trunk Group Form**— Administer the Per Call CPN/BN field on the appropriate ISDN-PRI trunk group: Valid entries are "cpn-only," "cpn-pref," "bn-only," and "bn-pref." The corresponding information will be sent with a call offered event report to the adjunct. If the field is blank, no CPN/BN information is sent to the adjunct.
- **Hunt Group Form**—Complete a form for each split to be controlled by the ICM adjunct. Specific entries are:
 - Group Type—"ucd" is usually preferred
 - Message Center—"none" is typical entry
 - ACD—Enter "y"
 - Queue—Enter "y"
 - Queue Length—Assign a short Queue Length
 - First Announcement Delay—Entering "0" implements Forced First Announcement (not recommended for ICM)
- **COR Form**— Enter "y" (yes) in the DAC field on the appropriate COR form to enable the DAC feature for the COR. DAC is only allowed if the call originator and the destination agent have a COR that allows the DAC.

- **Call Vector Form**— If Call Vectoring is to be used, insure that a Call Vector form has been completed. An ASAI link interface extension number is required for an "adjunct routing" command entered on the form. This extension is the same as that entered on the station form.
- **Station Forms**— On the appropriate station forms, complete all ASAI interface fields as required to administer agent voice terminals. Queue status feature buttons may be assigned (status lamps are functional after agent login).

Hardware Requirements

Additional hardware requirements for the ASAI port interface are described with the CallVisor ASAI feature coverage (this chapter).

Individual Attendant Access

Allows users to access a specific attendant console. Each attendant console can be assigned an individual extension number.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Dial Plan	First Digit Table	6-117
Attendant Console	Extension and Name	6-32
Console Parameters	COR and COS	6-79

- Dial Plan Form—Ensure that the First Digit Table Assignments include extension numbers to be assigned individual attendants.
- Attendant Console Form—Enter attendant extension and name. Assign optional Coverage and Make Busy feature buttons for Hunting and CAS Backup feature button for status indication.
- Console Parameters Form—Assign COR and COS.

Hardware Requirements.

None.

Information System Network (ISN) Interface

The AT&T ISN is a packet switched local area network that links mainframe computers, minicomputers, word processors, storage devices, personal computers, printers, terminals, and communications processors into a single system. The interface to the System is via an ADU.

Figure 4-15 provides a typical ISN interface connection to the System using a port on a TN726B Data Line circuit pack.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Data Line Data Module	All	6-89

- Data Line Data Module Form—Complete all fields.

Hardware Requirements

One TN726B Data Line circuit pack is required for each eight ISN interfaces.

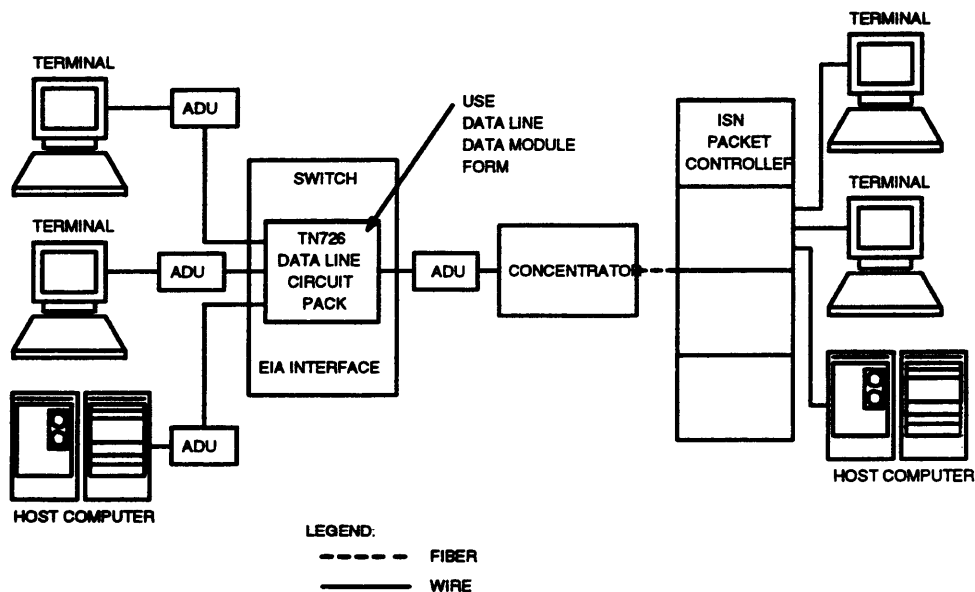


FIGURE 4-15. Typical ISN Connection to the System

Integrated Directory

Allows internal System users with display-equipped terminals to access the System data base, use the touch-tone buttons to key in a name, and retrieve an extension number from the System directory. The directory contains an alphanumeric listing of the names and extension numbers assigned to all voice terminals administered in the System. Note that the use of VDN names and extensions are not supported for this feature.

The set of characters allowed in the Integrated Directory database are alphabets "A" to "Z" and "a" to "z," numbers "0" to "9," and delimiters "blank" and "," (comma). In addition, the following special characters are allowed: "-" (hyphen), "'" (apostrophe), "." (period), and "&" (ampersand). These special characters can be entered from the G3-MT and are considered characters. However, the special characters will not be entered into the Integrated Directory. The special characters are treated as follows:

"." (period)—replaced by a "space"
 "'" (apostrophe)—ignored
 "-" (hyphen)—ignored
 "&" (ampersand)—ignored

If a character outside the allowed set is entered as the name of station or data module, that name is not included in the Integrated Directory database, and a directory search for that name using the "directory" button will fail.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (Associated Display Module Form)	Display Module Button Assignments -directory -next -call-disp	6-245
Attendant Console	Feature/Display Button Assignments -directory -next -call-disp	6-32
7404D Voice Terminal (Associated Data Module Form)	All	6-287

- Station Forms—Enter "y" in the Display Module field. Assign an Integrated Directory (directory) display button.
- Display Module Form—Assign one Integrated Directory (directory) display feature button, if desired. If an Integrated Directory button is assigned as a feature button, you cannot assign an Integrated Button on the Display Module, or vice versa. Assign Next and Return Call (call-disp) buttons also.

- Attendant Console Form—Assign one Integrated Directory display feature button. Assign Next and Return Call (call-disp) display buttons also.
- 7404D Station Form—Assign a "y" to the Display field if a 7404D Messaging Cartridge is attached to the voice terminal. Complete an associated 7404D Data Line Data Module form.
- 7404D Station Form—Assign a "y" to the Data Module field if a 7404D Messaging Cartridge is attached to the voice terminal. Complete an associated Data Module form.

Hardware Requirements

The 7404D voice terminal requires an optional Messaging Cartridge if the terminal is to be connected to an associated data terminal. (The data terminal provides display capabilities for the 7404D.)

Integrated Services Digital Network—Basic Rate Interface

Allows connection of the system to an Integrated Services Digital Network (ISDN) by using a standard ISDN frame format called the Basic Rate Interface (BRI). Also allows connection of adjunct systems on ASAI interface.

An ISDN provides end-to-end digital connectivity and uses a high-speed interface which provides service-independent access to switched services. Through internationally accepted standard interfaces, an ISDN provides circuit- or packet-switched connectivity within a network and can link to other ISDN-supported interfaces to provide national and international digital connectivity. Two types of ISDN interfaces are currently defined: the PRI and the BRI. This description focuses on ISDN-BRI (For details on ISDN-PRI, refer to the "Integrated Services Digital Network-Primary Rate Interface" sections in Chapters 4 and 5.)

The ISDN Basic Rate Interface is a 192-Kbps interface that carries two 64-Kbps "B-channels," which transport voice and/or data, and one 16-Kbps "D-channel," which transport data, signaling, and other bits for framing.

A BRI device (most commonly a terminal) operates at 192 Kbps, and provides bearer service over two 64 Kbps B-channels for voice and/or data. A BRI device also has one 16-Kbps D-channel for signaling and/or data. Although BRI supports data transmission on the D-Channel, DEFINITY Generic 3i does not support this capability, and only provides signaling on this channel. ISDN-BRI provides much of the same functionality that is provided with the DCP. ASAI interfaces use only the 16-Kbps D-Channel.

Note: The term "endpoints" is used in statements that apply to a BRI voice terminal, a BRI data module, and a BRI integrated terminal such as an integrated voice/data terminal.

BRI Endpoint Configurations

With ISDN-BRI, there are two possible configurations:

- point-to-point—only one endpoint connected on a BRI port
- multipoint—multiple endpoints connected on a BRI port. This configuration is also referred to as "passive bus" configuration.

Because DEFINITY G3i BRI implementation provides non-blocking voice and data services, the number of endpoints supported on one BRI port in multipoint configuration is restricted to a maximum of two.

As stated previously, each BRI interface has two B-channels. B-Channels are resources which are dynamically chosen by the switch or BRI endpoints for voice or data service requests. Because there are two B channels, only two simultaneous service requests can be granted at any one time on a BRI port to provide non-blocking service, either through point-to-point or multipoint configurations.

When one endpoint, such as the integrated voice/data endpoint, is capable of providing two service requests, it must be configured point-to-point, because both B-channels can potentially be used simultaneously by the two services. Currently, in the point-to-point configuration, you can have the following endpoint types:

- 1 voice-only endpoint
- 1 stand-alone data endpoint
- 1 integrated voice/data endpoint (See note below).

Two endpoints, each capable of providing only one service request, can be administered on the same BRI port. These two endpoints are thus configured as multipoint. Here again, both B channels can potentially be used simultaneously by the two service requests. Therefore, no more endpoints can be administered on the same BRI port. In multipoint configuration, you can have:

- 2 voice-only endpoints
- 2 stand-alone data endpoints
- 1 voice-only endpoint and 1 stand-alone data endpoint.

Note: Although the integrated voice/data endpoint supports two services requests, it is not considered to be in multipoint configuration since it is only one endpoint.

Service Profile Identifier (SPID)

When more than one endpoint is connected on a BRI port, the switch associates endpoints with the administered station or data module extensions using a Service Order Profile Identifier (SPID). A SPID is administered on the station or data module forms and is programmed in the BRI endpoint using the procedure described in Appendix A. The endpoint sends the SPID to the switch during initialization. The SPID administered on the station or data module administration forms must match the SPID which is programmed into the endpoint. If they don't match, the system will restrict service to such endpoint. Therefore, the SPID administration and programming of the SPID into the endpoint is required for multipoint configuration. When there is only one endpoint connected to the BRI port, the SPID administration is optional. However, if the SPID is administered, it must match the SPID programmed into the endpoint. If the SPID is not administered, the switch will use the port to associate the endpoint with the administered station or data module extension.

ISDN-BRI Data Services

Data transmission on ISDN-BRI is provided by the 7500B Data Module and the ADM. The 7500B Data Module is a stand-alone unit that supports asynchronous or synchronous DCE and asynchronous DTE. In asynchronous mode, the 7500B supports packet or circuit-switched data communications, and can be controlled via the front panel or the keyboard of a connected terminal. In synchronous mode, the 7500B supports circuit-switched or nailed-up data communications, requires either the Multipurpose Enhancement Board or the High Speed Synchronous Enhancement Board, and can only be controlled via the front panel.

The ADM may be used with asynchronous DTE as a data stand for 7500-series BRI voice terminals. Consisting of a circuit pack located inside the BRI voice terminal, the ADM allows the transmission of integrated voice and data through one voice terminal. The ADM supports the Hayes command set for compatibility with PC communications packages.

The system can support a maximum of 800 data modules. This value includes both BRI and DCP data modules.

Administration

The Packet Bus Activated field must be set to "yes" on the Maintenance-Related System Parameters form before BRI station forms can be administered.

The 7500B Data Module is administered via the Data Module form while the ADM is administered via associated station administration forms, using the data module administration page.

ASAI is administered via station administration.

Hardware Requirements

BRI services require the following hardware:

- The TN778 Packet Control circuit pack which provides the interface to the packet bus in G3i, for establishing the signaling connectivity.
- The TN556 BRI Line circuit pack which can support 12 line interfaces (a maximum of 24 endpoints in multipoint configuration), each operating at 192 Kbps.
- If the TN556 BRI Line circuit pack is on an EPN, then TN570 EI circuit pack not TN776 must be used.
- ISDN-BRI Type B and Type D Terminal Management S/T interface terminals.
- The AT&T ISDN 7505D, 7506D, 7507D, and 8503T voice terminals.
- The 7500B Data Module and the ADM. The ADM is supported by the AT&T ISDN 7505D, 7506D, and 7507D voice terminals with firmware version FP2.0 or later.

For additional information, refer to the "7500B Data Module," "Asynchronous Data Module," and "Data Modules" sections in this chapter and to the "7500B Data Module" and "7500D Series Voice Terminals" sections in Chapter 6.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Maintenance-Related System Parameters	Packet Bus Activated	See Note
Station (7500 series)	All	6-396
Station (8500 series)	All	6-396
7500B Data Module	All	6-84

Note: The Maintenance-Related System Parameters Form is a maintenance form. For more information, refer to *DEFINITY® Communications System Generic 1—Maintenance, 555-204-105*.

- Maintenance-Related System Parameters Form Enter "yes" in the Packet Bus activated field to enable to Packet Control circuit pack.
- Station Form (7505D, 7506D, and 7505D) Complete all fields.
- Station Form (8503T) Complete all fields.
- 7500B Data Module Form Complete all fields.

Integrated Services Digital Network-Primary Rate Interface

Provides end-to-end digital connectivity within the network and can provide national and international digital connectivity to other Integrated Services Digital Networks (ISDNs) that support the Primary Rate Interface (PRI) standard.

Note: For administration information associated with an ISDN Gateway adjunct (that is, 3B2 or 6386 computer) used in support of the CPN/BN feature, refer the CPN/BN coverage (this Chapter).

Administration

The ISDN-PRI option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
DS1 Circuit Pack	All	5-65
Signaling Group	All	5-61
Synchronization Plan	All	6-209
Processor Interface Data Module	All	6-112
Interface Links	All	6-175
Processor Channel Assignment	All	6-194
ISDN-PRI Trunk Group	All	5-195
CPN Prefix Table	All	5-79
Routing Patterns	All	5-29
Hunt Groups	ISDN Caller Display	6-160
Terminating Extension Group	ISDN Caller Display	5-92

- DS1 Circuit Pack Form—Assign all fields as required. For FAS, up to 23 ports are available for administration as trunk members in an associated ISDN-PRI trunk group. The 24th port is utilized as a signaling channel. For Non-Facility Associated Signaling, all 24 ports may be used on certain DS1 circuit packs. The D-Channel signaling function for these packs must be provided by a designated DS1 pack on its 24th channel.
- Signaling Group Form—Complete all fields. This form is used to identify groups of ISDN-PRI DS1 interface B-Channels for which a given D-Channel (or D-Channel pair) will carry the associated signaling information (supports the FAS and NFAS).
- Synchronization Plan Form—Used to assign primary and secondary external synchronization sources for the DS1 circuit pack. Complete all fields of the form as required.

- Processor Interface Data Module Form—Assign up to eight interface links using eight Processor Interface Data Module forms for multi-carrier cabinet Systems and up to four links for single-carrier cabinet Systems. One Processor Interface Data Module form must be completed for each interface link to be assigned.
- Interface Links Form—Assign link numbers 01 through 08 for a multi-carrier cabinet System or links 01 through 04 for a single-carrier cabinet System as required. **(See Note following this listing.)**
- Processor Channel Assignments Form—Enter assigned link numbers and assign associated channel numbers to each link. Complete all fields of the form as required. **(See Note following this listing.)**
- ISDN-PRI Trunk Group Form—Complete all fields as required.
- CPN Prefix Table Form—Complete all fields. This form is used to support the ISDN-PRI Call Identification Display feature.
- Routing Pattern Form—Complete all fields including the Supplemental ISDN Routing Information fields as required.
- Hunt Group Form—Complete the ISDN Caller Display field by entering either "grp-name" or "mbr-name" to specify whether the hunt group name or member name, respectively, will be sent to the originating user (used in support of the ISDN-PRI Call Identification Display feature).
- Terminating Extension Group (TEG) Form—Complete the ISDN Caller Display field by entering either "grp-name" or "mbr-name" to specify whether the group name or member name, respectively, will be sent to the originating user (used in support of the ISDN-PRI Call Identification Display feature).

Note: When first administering the Interface Links/Processor Channel Assignments forms in the System for ISDN:

1. Administer the required fields for ISDN on the Interface Links form except the "Enable" field.
2. Administer the required fields on the Processor Channel Assignments form for ISDN.
3. Finally administer the "Enable" field on the Interface Links form.

Hardware Requirements

Requires a TN767 DS1 Tie Trunk circuit pack for assignment of a signaling link and up to 23 ISDN-PRI Trunk Group members. The DS1 provides 24 ports. A TN768 Tone Clock circuit pack is required to provide synchronization for the DS1 circuit pack. Also requires use of a TN765 Processor Interface circuit pack for assignment of associated links.

Voice terminals equipped with displays are required to display ISDN-PRI Call Identification information.

Intercept Treatment

Provides an intercept tone or a recorded announcement or routes the call to an attendant for assistance when calls cannot be completed or when use of a feature is denied. Note that a VDN extension cannot be administered to receive intercept treatment.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	DID/Tie/ISDN Intercept Treatment	
	Controlled Restrictions	6-133
Recorded Announcements	Port Assignments (1-128)	6-198

- Feature-Related System Parameters Form—Complete the following fields:
 - DID/Tie/ISDN Intercept Treatment—This entry (extension number or 0 for the attendant) is to be used for intercepting invalid DID and/or tie trunk calls.
 - Controlled Outward Restriction Intercept Treatment—This entry determines the type of intercept treatment the caller receives on outward restricted calls.
 - Controlled Termination Restriction (Do Not Disturb)—This entry determines the type of intercept treatment a caller receives when a call is placed to a termination restricted voice terminal.
 - Controlled Station-to-Station Restriction—This entry determines the type of intercept treatment the caller receives when a call is placed to a restricted voice terminal.
- Recorded Announcements Form—Assign intercept announcement extension number, if used.

Hardware Requirements

Requires announcement equipment and a port on a TN742, TN746B, or TN769 Analog Line circuit pack for each announcement device to be assigned. A TN750 Announcement circuit pack can be used to provide up to 16 different announcements. The announcements can be directly recorded onto the TN750 circuit pack (does not require announcement equipment).

Intercom—Automatic

Provides a talking path between two voice terminal users. Calling users press the Automatic Intercom button and lift the handset, or vice versa. The called user receives a unique intercom alerting signal, and the status lamp associated with the Dial or Automatic Intercom button, if provided, flashes.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Intercom Groups	Group Member Assignments	6-172
Station (multi-appearance)	Button/Feature Button Assignments -auto-icom (Grp:_ DC:_)	6-245

- Intercom Groups Form—Complete intercom-dial fields.
- Station Forms—Assign Auto Intercom (auto-icom) button(s).

Hardware Requirements

None.

Intercom-Dial

Allows multi-appearance voice terminal users to gain rapid access to as many as 32 other voice terminal users within an administered group. Calling voice terminal users lift the handset, press the Dial Intercom button, and dial the 1- or 2 - digit code assigned to the desired party. The called user receives alerting tone, and the status lamp associated with the Intercom button, if provided, flashes.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Intercom Groups Station (multi-appearance)	All	6-172
	Button/Feature Button Assignments -dial-icom (Grp:_)	6-245

- Intercom Groups Form—Establish intercom groups.
- Station Forms—Assign Dial Icom buttons on voice terminals for all intercom group members who can originate an intercom call. Anyone in a group can be called, but only those members with an assigned Intercom button can originate an intercom call.

Hardware Requirements

None.

International Toll/Code Restriction (International G1.1SE only)

Note: The following information on implementing calling restrictions is only needed for G1.1SE systems. With G1.2SE, these methods for implementing calling restrictions are not needed because of the G1.2SE's implementation of Multi-National Call Routing and Multi-National Toll Analysis, which provide for calling restrictions.

For International G1.1SE systems, USA Toll and Code Restriction features will work as in standard G1.1 systems only if both the public network dialing plan and the G1.1SE follow the North American Numbering Plan (that is, 7- and 10-digit dialing and other USA-specific restrictions). If the switch has a North American Numbering Plan but the CO doesn't, then the system administrator should proceed as described in the two methods outlined below.

The use of the USA Toll Restriction feature requires that long-distance and operator-assisted calls begin with a "1" or a "0." The USA Toll Restriction feature is implemented by administering CO and FX trunk groups as toll restricted and then administering certain COR codes as toll restricted. Finally, stations assigned the COR whose calls are routed over the trunk groups are prevented from placing "1" or "0" calls unless the dialed digits are on the system's "Allowed Calls List." As a result of using another dial plan, USA Toll Restriction cannot be implemented when long-distance and operator-assisted calls begin with digits other than "1" or "0," respectively. (However, if the switch is being used in a country that doesn't use "1" or "0" as the first digits of toll calls, it is still possible for the switch to perform a kind of toll restriction using the two methods described below.)

The USA Code Restriction feature denies the calling party completion of outgoing calls to destinations whose numbers have selected initial three digits (within the local calling area), special service, and area codes. Code Restriction applies when a code restricted user (controlled by COR) accesses a CO or FX trunk group whose Restriction field is set to "code." The system then checks appropriate Code Restriction tables to determine if the call will be allowed or sent to intercept. These Code Restriction tables can be for local calling areas (called HNPAs in standard G1.1 Systems) or for long-distance calling areas (called FNPAs or Foreign Numbering Plan Areas or FNPAs in standard G1.1 Systems). Code Restricted calls are routed over CO or FX trunks which require 7- or 10-digit dialing strings. As a result, the USA Code Restriction feature cannot be implemented in systems with 3-, 5-, 6-, or 8-digit dial plans, for example, because the trunk group requires 7-or 10-digit dialing.

We have discussed why you can use the built-in USA Code Restriction feature only if you are in a country that uses 7- or 10-digit dial plans similar to the USA. But in other countries, you can create practically the same kind of calling restrictions by one of the following two methods. Method 1 below describes a way to implement call restrictions and Method 2 describes a way to implement the handling of special numbers (such as USA service codes 411 and 811).

Method 1 Calling restrictions can be implemented using ARS and FRLs. Translations should be implemented primarily using entries in the ARS FNPA table (for long-distance areas). While the meanings of the various dial plan entries may change from location to location, the basic format should remain intact. Restriction is accomplished by using the FRLs for the various ARS Routing Patterns. ARS and FRLs are described in their own sections in this chapter. Call processing can be controlled as follows:

- **Local Calls**— Route calls based on the first three dialed numbers using the ARS HNPA table.
- **National Toll Calls**— Generally of the format 0NX...X. These calls route via the ARS FNPA table, entry 001 (labeled "Operator Assist" in the standard manual). At locations where 01X...X translations are required, ARS FNPA entry 012 should be set to the same pattern as entry 001.
- **International Toll Calls**— Generally of the format 00NX...X. These route by the ARS FNPA table entry 003 (labeled "IXC Operator Assist" in the standard manual). At locations where 000/001 call routing is required, where 00 is used by itself for international access and sometimes followed by a "1" (country code for USA and Canada), then the ARS FNPA entry 004 should be set to the same pattern as entry 003.

ARS FNPA entry 000 and 002 should also be set to the same pattern as entry 003 to prevent unauthorized access to toll facilities.

Method 2 When using special numbers such as service codes, the numbers should be translated using Privileged Abbreviated Dialing lists as described in the "Abbreviated Dialing" section of this chapter or by defining empty Hunt Groups and forwarding calls to those groups to the appropriate outside numbers.

Inter-PBX Attendant Calls

Allows attendant positions for more than one branch location to be concentrated at one central, or main location. Incoming trunk calls to the branch location, as well as attendant-seeking voice terminal calls, are routed over tie trunks to the attendants at the main location.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Tie Trunk Group (Main)	Incoming Destination	5-247
Console Parameters (Branch)	IAS (Branch)	
	IAS Tie Trunk Group No.	
	IAS Att. Access Code	6-79
Tie Trunk Group (Branch)	All	5-247

- Tie Trunk Group Form (Main)—Requires a Tie Trunk Group with the Incoming Destination field set to the attendant group access code (typically 0).
- Console Parameters Form (Branch)—Enter "y" in the IAS (Branch) field. The IAS (Branch) and CAS fields cannot both be "y." Assign an "IAS Trunk Group Number" and an "Inter-PBX Attendant Access Code."
- Tie Trunk Group Form (Branch)—Requires a tie trunk group connected to the CAS Main (this is the trunk group referral to as "IAS Tie Trunk Group No." on the Console Parameters form).

Hardware Requirements

Requires a port on a TN722B or TN767 DS1 Tie Trunk circuit pack for each tie trunk to be assigned.

Intra-switch SMDR

Note: This section describes the implementation of the Intra-switch SMDR feature. For administrative information on SMDR, refer to the "Station Message Detail Recording (SMDR)" section in this chapter.

An administrable option that allows SMDR records to be generated for some internal calls. Intra-switch SMDR records are generated by an internal direct call that is originated by an extension that is optioned for intra-switch SMDR or that has a dialed number which is optioned for intra-switch SMDR.

For an Intra-switch SMDR record to be generated, one of the stations involved in a call must have been optioned for the Intra-switch SMDR call. Intra-switch will or will not generate a record based on the DIALED number (assuming the originator is not intra-switch optioned), but the number which is actually displayed in the dialed number field will be determined by the administration of group/member/VDN information.

Some calls may look like intra-switch SMDR calls, but will result in trunk calls. For example, a call from a station to a VDN will be routed as an outgoing call on trunk T1. Such calls will not generate Intra-switch SMDR records.

Note: When a trunk SMDR record and an intra-switch SMDR record are involved in a call due to transfers or conferences, an attempt will be made to preserve intra-switch records. For example, if A (which has administered with the intra-switch SMDR option) calls B (which has not been administered with the intra-switch SMDR option), and B then transfers the call to T1, an intra-switch record would be generated for the activity between A and B before the transfer. The portion of the call between B and T1 would be output as an outgoing trunk record. However, if A calls T1, the output would be a trunk record.

The originating extension for ACA and SVN (that is, referral) calls cannot be administered with the intra-switch option. However, the destination extension can be administered with the intra-switch option.

Administration

To implement the Intra-switch SMDR feature, the following form must be completed.

Form	Field	Form Instructions (Page #)
Intra-switch SMDR	All	6-180
Feature-Related System Parameters	Intra-switch SMDR	6-133

The Intra-switch SMDR form has 100 fields. Allowed extensions on the form must correspond to TEGs, stations, data modules, VDNs, or hunt groups. Attendants are not allowed to be optioned on the Intra-switch SMDR form. To add the Intra-switch feature to an extension, add the extension to the form. The **change intra-switch-smdr** and **display intra-switch-smdr** commands are supported for this feature.

Note: The Intra-switch SMDR feature is not supported for ASAI stations.

Intraflow and Interflow

Allows ACD calls to be redirected from one split to another split under busy or unanswered conditions. Intraflow provides redirection of ACD calls to other splits within the system. Interflow uses the Call Forwarding All Calls feature to redirect ACD calls to an external location and requires no further administration.

Administration

To implement the Intraflow feature, the following form(s) or sections of the form(s) must be completed in addition to ACD administration requirements.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Coverage—Don't Answer Interval for Subsequent Redirection	6-133
Hunt Groups	Inflow Threshold	6-160
	Priority on Intraflow	
Call Coverage Paths	Don't Answer Busy Number of Rings	6-55

- Feature-Related System Parameters Form—Assign the number of times a voice terminal in a Call Coverage path will ring before the call is routed to the next coverage point.
- Hunt Group Form—Assign "y" to the Priority On Interflow field if calls incoming from this split to a covering split will have priority over calls waiting in the covering split's queue. Assign the number of seconds in the Inflow threshold field that a call will remain in the queue before no more calls will be accepted by the queue.
- Call Coverage Paths Form—Complete the Coverage Criteria Busy and Don't Answer fields for both inside and outside calls. Assign the Number of Rings field to the rings that will occur at an agent's terminal before an unanswered call is redirected to the first coverage point.

Hardware Requirements

None.

Last Number Dialed

Automatically redials the last number dialed when users press the Last Number Dialed button or dial the Last Number Dialed feature access code.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Last Number Dialed Access Code	6-127
Station (multi-appearance)	Button/Feature Button Assignments -last-numb	6-245
Attendant Console	Feature Button Assignments -last-numb	6-32

- Feature Access Codes Form—Verify Last Number Dialed Access Code field.
- Station Forms—Assign Last Number Dialed (last-numb) button to voice terminal.
- Attendant Console Forms—Assign Last Number Dialed (last-numb) button to the console.

Hardware Requirements

None.

Leave Word Calling

Allows internal system users to leave a short preprogrammed message for other internal users. Users can activate Leave Word Calling (LWC) at any time during a call attempt. Note that the LWC messages cannot be stored, canceled, or retrieved for VDN extensions.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Max. Number Of Messages Per Station	6-133
Station	Stations With System-Wide Message Retrieval Permission	
	LWC Reception	6-245
	LWC Activation	
	Button/Feature/Button Assignments	6-32
	-lwc-store	
	-lwc-cancel	6-127
	-aut-msg-wt (Ext:_)	
	-call-disp	6-127
	-msg-retr	
	-next	6-127
	-delete-msg	
	-lwc-lock	6-127
	-cov-msg-rt	
Attendant Console	Feature Button Assignments	6-127
	-lwc-store	
	-lwc-cancel	6-127
	-delete-msg	
	-next	6-127
	-call-disp	
	-aut-msg-wt (Ext:_)	6-127
Feature Access Codes	LWC Message Retrieval Lock	
	LWC Message Retrieval Unlock	6-127
	LWC Send A Message	
	LWC Cancel A Message	6-127

Note: Refer to the Attendant Display and Voice Terminal Display features for additional information on LWC feature related buttons that can be assigned an attendant console or voice terminal display.

- Feature-Related System Parameters Form—Complete the Maximum Number of Messages Per Station and Stations with System-wide Retrieval Permission fields.
- Station Forms—Complete the LWC Reception and LWC Activation fields (which specify if the voice terminal can receive and/or activate LWC messages, respectively).
 - Assign a LWC button, if desired.
 - Assign a Cancel button, if desired, to allow a calling party to cancel a previously left message.
 - Automatic Message Waiting. (The buttons associated status lamp lights at the same time the message lamp lights at the called voice terminal. A common use is to provide an indication of an extension's messages on a secretary's voice terminal. This lamp also provides an indication of LWC messages left for a DDC group, a UCD group, an ACD split, a TEG or PCOL group.)
- Attendant Console Form or the Station Form—For each voice terminal or attendant console group that can retrieve LWC messages, optionally assign the following buttons:
 - Message Retrieval (to access one's own messages-voice terminals only)
 - Coverage Msg Retrieval (to access another user's message)
 - Delete Message (to remove a retrieved message)
 - Call Display (to automatically call the person who left the message while displaying a retrieved message)
 - Lock (displays locked or unlocked status of the Message Retrieval)
 - Next (to retrieve the next stored message)
 - Cancel LWC (to allow canceling a previously left message)
 - Automatic Message Waiting (the buttons associated indicator is used to indicate a remote message waiting).

Note: Buttons can be assigned on the visual display module or in the "features area" of the terminal or console. If a Message Retrieval or a Coverage Message Retrieval button is specified, a Next Message and a Delete Message button should also be specified.

- Feature Access Codes Form—Verify or assign the following access codes:
 - LWC Message Retrieval Lock field
 - LWC Message Retrieval Unlock field
 - LWC Send a Message field
 - LWC Cancel a Message field.

Hardware Requirements

None.

Lookahead Interflow

Provides a flexible and intelligent ACD load balancing capability based on programmable call vectors. It enhances the Call Vectoring (CV) feature so that calls will not interflow to a remote location that cannot accept the calls. This service is provided by the use of private network ISDN-PRI connections. The receiving switch may accept or deny the lookahead calls and the sending switch has the option to initiate lookahead interflow to an alternate backup location.

Note that the receiving switch must have the Call Vectoring and the Lookahead Interflow features active also. In addition, all Lookahead Interflow calls must connect ISDN-PRI switch-to-switch using private facilities.

The Lookahead Interflow, ISDN-PRI, and CV (Basic) options must be enabled on the System-Parameters Customer-Options form.

Administration

To implement this feature, the following forms or sections of forms must be completed:

Note: Refer to the CV feature coverage in this chapter for associated CV administration information.

Form	Field	Form Instructions (Page #)
Trunk Group (ISDN-PRI)	-Display, TCM, Lookahead Codeset -Outgoing Display	5-195
CPN Prefix Table	-Ext Len -Ext Code -CPN Prefix	5-79

- **Trunk Group Form (ISDN-PRI)**—If the far-end switch can only receive Lookahead Interflow information in Codeset 7 (for example, System 85 R2V4) the Display, TCM, Lookahead Codeset field must be administered as "7." For switches that can receive the information in either codeset six or seven. Default is "6."

For those System's that do not want the call originator's display to be updated on each Lookahead Interflow call attempt, lookahead calls should be routed over trunk groups with the Outgoing Display field set to "n."

- **CPN Prefix Table Form**—Administer a CPN Prefix for each VDN that maps to a call vector that is used to place Lookahead Interflow calls. Failure to administer a CPN/Prefix results in a Lookahead Interflow DNIS of all spaces being sent to and displayed on the answering agent's terminal.

Hardware Requirements

Existing ISDN-PRI hardware can be used for Lookahead Interflow ISDN-PRI connectivity to the receiving switch. Interconnecting facilities must be ISDN-PRI with no interworking (that is, call connections that use both ISDN-PRI and non-ISDN-PRI facilities to complete) for the full capabilities of the feature to be operational. Lookahead Interflow calls which interwork may interflow successfully, but the ability to do so on an intelligent basis will be lost as will the lookahead DNIS information.

Loudspeaker Paging Access

The following provides administration guidelines for Loudspeaker Paging Access feature and for administering a PagePac paging system. In addition to or instead of the System's Loudspeaker Paging Access feature, a PagePac paging system can be used.

Loudspeaker Paging Access

Provides attendants and voice terminal users dial access to voice paging equipment. Up to nine individual paging zones and one zone that can be used to activate all nine zones simultaneously can each be accessed using unique trunk access codes assigned each zone. The access codes may be assigned on AD feature buttons or when activated by an attendant may also be assigned Trunk Group Select button(s) on the console.

This feature is particularly useful when used in conjunction with the Call Park feature. When a user is away from his or her location and receives a call, an incoming call can be answered and then parked by another user. The called party can then be paged and told what extension number to call to receive the incoming call. The called party dials the Answer-Back access code and (after receiving Dial tone) the extension number that the call is parked on.

Refer to the Loudspeaker Paging Access-Deluxe feature which integrates the Call Park feature into the use of the Loudspeaker Paging feature.

Administration—Loudspeaker Paging

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments	6-245
Attendant Console	DTGS Selector Feature Button Assignments	6-32
Loudspeaker Paging and Code Calling Access	All	6-183

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Call Park Timeout Interval	6-133
	Deluxe Paging and Call Park Timeout to Originator	
Dial Plan	First Digit Table	6-117
Console Parameters	Common Shared Extensions	6-79
Class of Service	Console Permission	6-77

- Station/Attendant Console Forms—Up to 10 (one per zone) Loudspeaker Paging Access buttons (per multi-appearance voice terminal and attendant console) can be assigned through the Attendant Direct Trunk Group Selection, AD, and the Facility Busy Indication features, if required.
- Loudspeaker Paging and Code Calling Access Form—Complete Loudspeaker Paging fields.
- Feature-Related System Parameters Form—Enter in the Call Park Timeout Interval field, the desired time in minutes that a call can remain parked before it is canceled. Enter "n" in the Deluxe Paging and Call Park Timeout to Originator field. (All parked calls that time out are returned to the attendant console.)
- Dial Plan Form—Assign the length (one through three digits) of the trunk access code to be used to activate Loudspeaker Paging Access.
- Console Parameters Form—Complete the Common Shared Extensions fields that are exclusively used for Call Park.
- COS Form—Complete the Console Permission field on those Class of Service forms that will allow associated voice terminal users to park calls on the attendant consoles "Common Shared Extensions."

Hardware Requirement—Loudspeaker Paging

Requires loudspeaker paging equipment and a port on a TN763C Auxiliary Trunk circuit pack for each individual paging zone port (maximum of nine) to be assigned. In addition, paging interface hardware consisting of a 278A Adapter and a 24-volt power supply is required per paging zone. (This hardware can be shared with the Code Calling Access feature. Each feature is activated via an assigned trunk access code.) Associated wiring information is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Wiring*, 555-204-111.

PagePac Paging

In addition to, or instead of the System loudspeaker paging equipment, a PagePac paging system can be used. A PagePac paging system has an advantage over the System's Loudspeaker Paging Access feature in that a PagePac system requires only one port to provide as many as 39 paging zones. The System's Loudspeaker Paging Access feature requires a separate port for each paging zone with a maximum of nine zones.

PagePac equipment is easy to use. A user simply dials the trunk access code assigned to the PagePac system. This connects the user to the PagePac equipment. If there is only one paging zone, the user then uses the handset of the voice terminal to page someone. If there are multiple zones, the user, after hearing a steady tone, dials a 1- or 2-digit code to access the desired zone(s) before paging.

Administration—PagePac Paging

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
CPE Trunk Group	All	5-137
Feature-Related System Parameters	Call Park Timeout Interval	6-133
Dial Plan	First Digit Table	6-117
Console Parameters	Common Shared Extensions	6-79
Class of Service	Console Permission	6-77

- CPE Trunk Group Form—Complete a CPE Trunk Group form and associated member number to assign a TN763C Auxiliary Trunk port interface to the PagePac paging equipment. Assign the TAC that will be used to access the paging equipment.

Note that the administration of this port and associated PagePac paging zones is not provided for on the Loudspeaker Paging and Code Calling Access form. The port must be administered using a CPE Trunk Group form. Support for single or multiple zone paging is provided by the PagePac system and is not administered on the switch. Associated wiring information is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Wiring*, 555-204-111.

- Feature-Related System Parameters Form—Enter in the Call Park Timeout Interval field, the desired time in minutes that a call can remain parked before it is canceled. (All parked calls that time out are returned to the attendant console.)
- Dial Plan Form—Assign the length (one to three digits) of the trunk access code to be used to activate the paging equipment.

- Console Parameters Form—Complete the Common Shared Extensions fields that are exclusively used for Call Park
- COS Form—Complete the Console Permission field on those COS forms that will allow associated voice terminal users to park calls on the attendant consoles "Common Shared Extensions."

Hardware Requirements—PagePac Paging

Three different PagePac paging systems are available for use with DEFINITY Generic 3i:

- PagePac 20

This is the smallest PagePac system. The basic system provides a single paging zone with an input source for music over the paging system. The music can also serve as the music for the Music-on-Hold Access feature. Additional add-on hardware is available to provide multi-zone paging for three, nine, or 39 paging zones.
- PagePac VS

This system provides one to three paging zones. It also permits the paging of all zones simultaneously. Additional hardware is available to provide music and/or talk-back over the paging system.
- PagePac 50/100/200

This system provides up to 24 paging zones. Additional hardware is available to provide music and/or talkback over the paging system.

Loudspeaker Paging Access-Deluxe

Provides attendants and voice terminal users with integrated dial access to voice paging equipment and Call Park capabilities. Up to nine individual paging zones and one zone that can be used to activate all nine zones simultaneously can each be accessed using unique trunk access codes assigned each zone. The access codes may be assigned on AD feature buttons or when activated by an attendant may also be assigned Trunk Group Select button(s) on the console.

This feature is particularly useful in that the Call Park feature is integrated into the use of the feature. When a user is away from his or her location and receives a call, an incoming call can be answered and then parked by another user. The user dials the Loudspeaker Paging access code and upon receiving Dial tone dials the extension that the call is to be parked on. The called party can then be paged and told what extension number to call to receive the incoming call. The called party dials the Answer-Back access code and (after receiving Dial tone) the extension number that the call is parked on.

Note: Also, see "Loudspeaker Paging Access."

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments	6-245
Attendant Console	DTGS Selector Feature Button Assignments	6-32
Loudspeaker Paging and Code Calling Access	All	6-183
Feature-Related System Parameters	Call Park Timeout Interval Deluxe Paging and Call Park Timeout to Originator	6-133
Dial Plan	First Digit Table	6-117
Console Parameters	Common Shared Extensions	6-79
Class of Service	Console Permission	6-77

- Station/Attendant Console Forms—Up to 10 (one per zone) Loudspeaker Paging Access buttons (per multi-appearance voice terminal and attendant console) can be assigned through the Attendant Direct Trunk Group Selection, AD, and the Facility Busy Indication features, if required.
- Loudspeaker Paging and Code Calling Access Form—Complete Loudspeaker Paging fields. Enter "y" in the Deluxe Paging field.

- Feature-Related System Parameters Form—Enter in the Call Park Timeout Interval field, the desired time in minutes that a call can remain parked before it is canceled. Enter "y" (yes) in the Deluxe Paging and Call Park Timeout to Originator field. (All parked calls that timeout are returned to the parking party.)
- Dial Plan Form—Assign the length (one to three digits) of the trunk access code to be used to activate Loudspeaker Paging Access - Deluxe.
- Console Parameters Form—Complete the Common Shared Extensions fields that are exclusively used for Call Park.
- COS Form—Complete the Console Permission field on those COS forms that will allow associated voice terminal users to park calls on the attendant consoles "Common Shared Extensions."

Hardware Requirements

Requires loudspeaker paging equipment and a port on a TN763C Auxiliary Trunk circuit pack for each individual paging zone port (maximum of nine) to be assigned. In addition, paging interface hardware consisting of a 278A Adapter and a 24-volt power supply is required per paging zone. (This hardware can be shared with the Code Calling Access feature. Each feature is activated via an assigned trunk access code.) Associated wiring information is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Wiring*, 555-204-111.

Manual Message Waiting

Enables multi-appearance voice terminal users, by pressing a designated button on their own terminals, to light the status lamp associated with the Manual Message Waiting button at another multi-appearance voice terminal. Activating the feature causes the lamp to light on both the originating and receiving voice terminals. Either terminal user can cause the lamp to go dark by pressing the button.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -man-msg-wt	6-245

- Station Form—Assign "man-msg-wt" to a voice terminal button.

Hardware Requirements

None.

Manual Originating Line Service

Connects users to the attendant automatically when the user lifts the handset.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Abbreviated Dialing System List	Dial Code (attendant)	6-13
Abbreviated Dialing Group List	Dial Code (attendant)	6-8
Abbreviated Dialing Personal List	Dial Code (attendant)	6-11
Station (single-line)	Abbreviated Dialing-List 1, 2, or 3 Hot Line Destination-AD List	6-260

- AD List Forms—Verify or assign an attendant code to a list.
- Station Forms—Assign the AD List to designated single-line voice terminal. List can be List 1, 2, or 3. Complete Hot-Line Destination field to indicate the AD List entry containing the attendant code.

Hardware Requirements

None.

Manual Signaling

Allows a voice terminal user to signal another voice terminal user. The receiving voice terminal user hears a two-second burst of tone. Note that a Manual Signaling button cannot point to a VDN.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/feature Button Assignments -Signal (extension # or name)	6-245

- Station Forms—Assign Manual Signal buttons as required to the voice terminal.

Hardware Requirements

None.

Message Server Interface

The Message Server (MS) provides MS-based features to the System such as Directory Service, Message Center Service, and Unified Messaging Services, such as Electronic Documentation Communications, UNIX® system mail, Office Telesystem, and DCS Centralized Messaging (principals switch is remote from MS host switch).

Figure 4-16 shows a MS interface to the System. The Switched Communications Interface (SCI) Link connectivity (Control Path) is provided via either a MPDM (distance between the System and Message Server less than 5000 feet) or via LADS and an associated MTDM (for distances greater than 5000 feet). The EIA connectivity (data path) can be implemented via one of the three options shown.

Administration

To implement the MS interface, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
SCI Link Connection		
Processor Interface Data Module	All	6-112
Processor Channel Assignment	All	6-194
Interface Links	All (for one MS link)	6-175
MPDM/MTDM	All	6-105
Feature-Related System Parameters	Message Server Adjunct (MSA) Connected	6-133
EIA Connection		
MPDM	ALL	6-105
Other		
Hunt Groups	All	6-160
Station	All	6-245

- SCI Link Connection

- Processor Interface Data Module Form—Complete all sections as required. Assigns a link (interface channel) in the digital switch for an MS interface. There are eight links (01 through 08) available for assignment in multi-carrier cabinet Systems and four links available for single-carrier cabinet Systems.
- Processor Channel Assignment Form—Complete the required fields on the form for the MS interface. Processor channels 1, 2, 3, 4, and 8 as shown on the

Processor Channel Assignments implementation instructions are reserved for Message Center Service. Enter the appropriate channel assignments and complete all associated field entries.

- Interface Links Form—Complete all fields on the form for one link as required. Assigns a link from the Processor Interface circuit pack for the MS.
- MPDM or MTDM Form—Complete all sections as required. Assigns a port on a TN754B Digital Line circuit pack to provide an interface between the MS, its associated MPDM, and the digital switch.
- Feature-Related System Parameters Form—Enter "y" in the Message Server Adjunct (MSA) Connected field.

- **EIA Connection**

- MPDM Form—Complete all sections as required. Assign a port on a TN754B Digital line circuit pack to provide a port interface.

- **Other**

- Hunt Group Form—Complete all fields as required to assign MS agents to the hunt group.
 - Station Form—Assign the PC/PBX Connection per implementation instructions, assign MS agent work stations as required. Complete System voice terminal, and data terminal forms as required for all users.

Hardware Requirements

Requires a TN765 Processor Interface circuit pack. In addition, a port on a TN754B Digital Line circuit pack is required to provide the MS interface from its associated MPDM or MTDM to the digital switch. The EIA connection requires either an MPDM and a port on a TN754B Digital Line circuit pack, an ADU and a port on a TN726B Data Line circuit pack or a modem and a port on a TN742, TN746B, or TN769 Analog Line circuit pack.

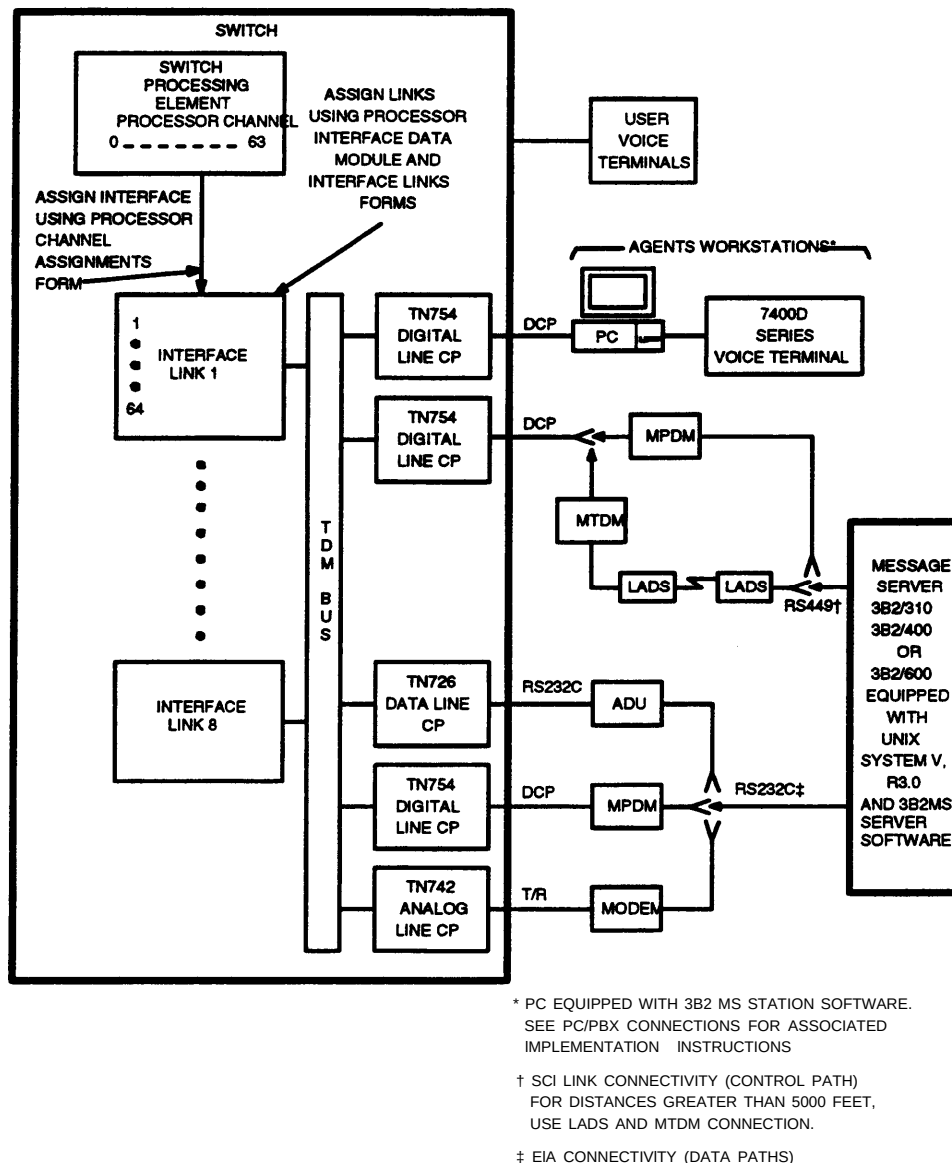


FIGURE 4-16. Typical Message Server Interface Connections

Modem Pooling

Allows switched connections between digital data endpoints (data modules) and analog data endpoints, and acoustic coupled modems. The analog data endpoint can be either a trunk or line circuit.

See Figure 4-17 for an example of integrated and combined modem pooling. Additional information on Modem Pooling is available in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, and in *AT&T System 75—Application Notes—Modem Pooling*, 555-209-007.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Integrated Modem Pooling

Form	Field	Form Instructions (Page #)
Modem Pool Group	All	6-187
Feature Access Codes	Data Origination Access Code	6-127
MPDM/MTDM	All	6-105

- Modem Pool Group Form—Complete all fields. Up to file Modem Pool Groups may be administered.
- Feature Access Codes Form—Complete the Data Origination access code entry (default is 134) if required. This code is used to indicate a need for a modem pooling conversion resource on an analog data call origination.
- MPDM/MTDM Form—Complete all fields as required when supporting a combined modem pool arrangement. Enter "tdm" in the forms "Type" field. A MTDM or 7400A Data Module may be used in support of the combined pool.

Combined Modem Pooling

Form	Field	Form Instructions (Page #)
Modem Pool Group	All	6-187
Feature Access Codes	Data origination Access Code	6-127

- Modem Pool Group Form—Complete all fields. Up to five Modem Pool Groups may be administered.
- Feature Access Codes Form—Complete the Data Origination access code entry (default is 134) if required. This code is used to indicate a need for a modem pooling conversion resource on an analog data call origination.

Hardware Requirements

A port on a TN758 Pooled Modem circuit pack is required for each integrated conversion resource to be supported. Up to 16 TN758s can be used for integrated conversion resources, each providing two ports. Combined conversion requires a port on a TN754B Digital Line circuit pack and a port on a TN742, TN746B, or TN769 Analog circuit pack for each combined resource to be supported.

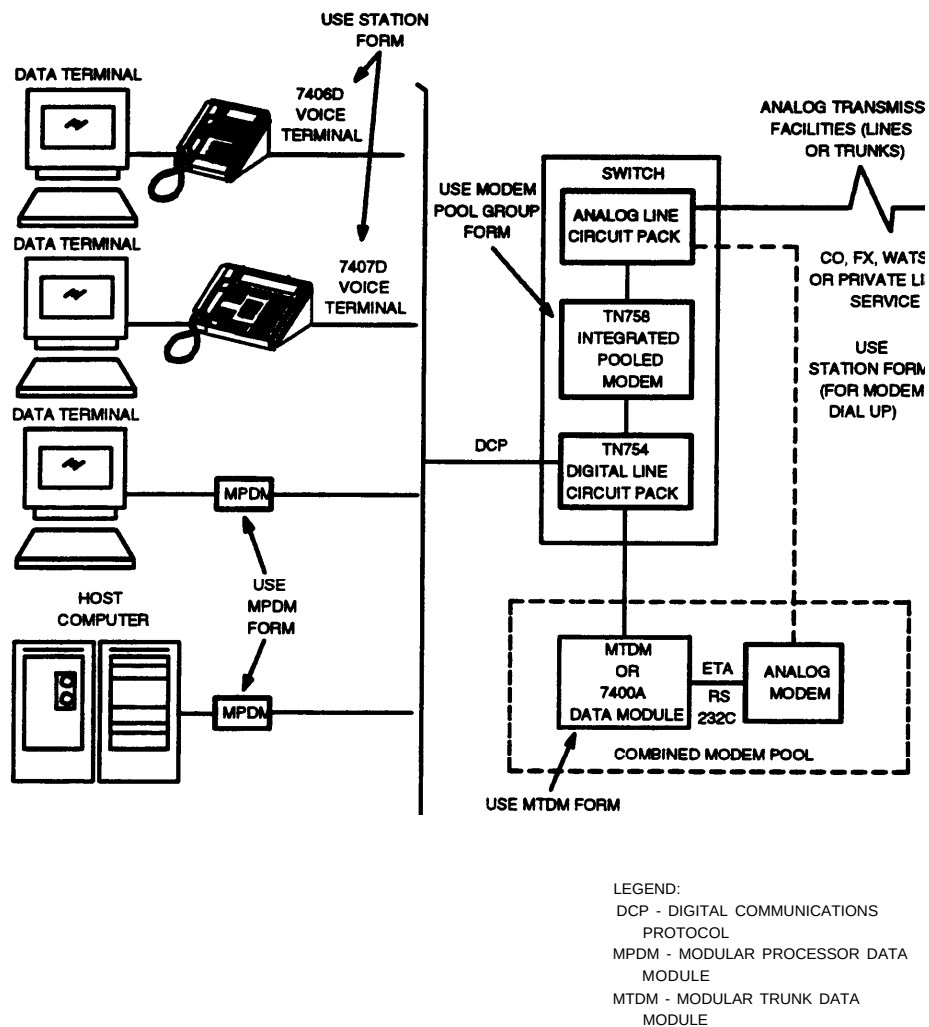


FIGURE 4-17. Typical Integrated and Combined Modem Pooling Arrangement

Multi-Appearance Preselection and Preference

Provides multi-appearance voice terminal users with options for placing or answering calls on selected appearances.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Idle Appearance Preference	6-245

- Station Forms—Complete Idle Appearance Preference field.

Hardware Requirements

None.

Multiple Listed Directory Numbers

Allows a publicly published number for each incoming only and two-way FX and local CO trunk group assigned in the System. Also allows up to eight DID numbers to be treated as LDNs.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
CO Trunk Group	Incoming Destination	5-123
FX Trunk Group	Incoming Destination	5-180
Listed Directory Numbers	All	6-181

- Trunk Group Forms—Assign Incoming Destination field for a CO or FX Office Trunk Group. The Incoming Destination field entry may be a VDN.
- Listed Directory Numbers Form—Assign up to eight listed directory numbers and an associated night service destination (may be a VDN) if required.

Hardware Requirements

None.

Music-on-Hold Access

Provides music to a party whose call is on hold, waiting in queue, parked, or on a trunk call that is being transferred. The music lets the waiting party know that the connection is still in effect.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Music On Hold Port Music (or Silence) on Transferred Trunk Calls	6-133
Trunk Group CPE	All	5-137

- Feature-Related System Parameters Form—Complete Music on Hold Port and the Music (or Silence) on Transferred Trunk Calls fields.
- CPE Trunk Group Form—Complete all fields as required to assign auxiliary trunk ports to interface with a customer provided music source.

Hardware Requirements

Requires a port on a TN763C Auxiliary Trunk circuit pack. Also, a 36A voice coupler is required if the music source is not FCC registered (provides an interface and System protection for the music source). See *DEFINITY® Communications System Generic 1 and Generic 3i—Wiring*, 555-204-111, for a description of the Music-on-Hold hardware interface requirements.

The music source may also be provided by a PagePac paging system (see Loudspeaker Paging Access—Deluxe feature) when used.

Names Registration

Automatically sends a guest's name and room extension from the PMS to the System's digital switch at Check-In and automatically removes the information at Check-Out. In addition, the guest's preferred call coverage arrangement (for example, voice mail or hotel operator) will be sent from the PMS to the switch at Check-In and set to the default coverage path for client rooms at checkout.

The name information can be displayed on display-equipped voice terminals to provide a display of the name of the calling party or called party. (Do not administer these type of voice terminals to guest rooms. The guest could dial other guest rooms and obtain the registered names.)

For suite rooms, pre-arranged call coverage paths can be administered in the switch and the numbers stored within the PMS that would allow one room in the suite to be the coverage point for the other.

Administration

Refer to the PMS Interface coverage for information on the PMS interface and for associated administration guidelines.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Hospitality-Related System Parameters	PMS Protocol Mode	6-154
	Default Coverage Path For Client Rooms	
	Milliseconds Before PMS Link Acknowledgement Timeout	

- Hospitality-Related System Parameters Form—In the PMS Protocol field, assign "normal" (supports 4-digit room numbers) or "transparent" (supports 5-digit room numbers).

In the Default Coverage Path For Client Rooms field, assign a valid call coverage path (one through 600), or leave blank for no coverage.

In the Milliseconds Before PMS Link Acknowledgement Timeout field, enter the maximum time the System will wait for an acknowledgement from the PMS that a transmitted message was received (100 through 1000 milliseconds).

Hardware Requirements

See Property Management System Interface.

Network Access—Private

Allows calls to be connected to the following types of networks:

- Common Control Switching Arrangement (CCSA)
- Electronic Tandem Network (ETN)
- Enhanced Private Switched Communications Service (EPSCS)
- Tandem Tie Trunk Network (TTTN)

Administration

The Private Networking option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Trunk Groups: Access APLT ISDN-PRI Tandem Tie	All	5-98 5-112 5-195 5-232 5-247
Class of Restriction	Advanced Private Line Termination	6-72
Feature Access Codes	Automatic Alternate Routing Access Code	6-127
Station	COR	6-245

- Trunk Group Forms—Specify group type as access, aplt, tandem, tie, or ISDN-PRI with Service Type as "access," "tie," or "tandem." Complete COR digit treatment and common type fields on the Tie Trunk Groups associated with a private network. Unless prohibited by the COR, all incoming private network trunks (except CCSA) can access outgoing trunks without attendant or terminal user assistance. All incoming CCSA calls must route to the attendant or a terminal user.
- COR Form—Complete the Advanced Private Line Termination field.
- Feature Access Codes Form—Assign an AAR access code consistent with user's ability to access these tie trunks.
- Station Forms—Assign a COR.

Hardware Requirements

Requires a port on a TN760C Tie Trunk circuit pack or TN722B or TN767 DS1 Tie Trunk circuit pack for each trunk assigned.

Network Access—Public

Provides voice terminal users and attendants with access to and from the public network.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
CO Trunk Group	All	5-123
DID Trunk Group	All	5-156
FX Trunk Group	All	5-180
ISDN-PRI	All	5-195
WATS Trunk Group	All	5-264

- Complete all Trunk Group Forms used for Public Network Access.

Hardware Requirements

Requires a port on a TN747B CO Trunk circuit pack or TN767 DS1 circuit pack for each trunk assigned.

Night Service—Hunt Group

Night Service—Hunt Group allows an attendant or a split supervisor to individually place a hunt group in the night service mode. A "hunt-ns" button when pressed, places an associated hunt group in the Night Service mode. All calls terminating on the hunt group or split in the night service mode will redirect to the designated night service extension.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -hunt-ns	6-245
Attendant Console	Feature Button Assignments -hunt-ns	6-32

- Station Forms—Assign "hunt-ns" buttons to designated voice terminals. Up to three hunt group buttons can be assigned to a combination of voice terminals and attendant consoles in each hunt group. The hunt group 2-digit number must be assigned to each button. These buttons should be assigned to feature buttons that have an associated status lamp. The lamp lights when hunt group night service is activated. If the assigned button does not have a status lamp, no visual indications of the hunt group night service status is given.
- Attendant Console Form—Assign "hunt-ns" feature button. Up to three buttons can be assigned to a combination of attendant consoles and voice terminals assigned to each hunt group. The hunt group two-digit number must be assigned to each button.

Hardware Requirements

None.

Night Service—Night Console Service

Directs all calls for the primary and daytime attendant consoles to a night console.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #}
Attendant Console	Console Type	6-32

- Attendant Console Form—The night console must be administered identical to the Primary Attendant Console. Specify the console as a "night console" in the Console Type field. Enter "night-only" if the console is dedicated to night service. Enter "day/night" if a day console is also used as the night console.

Hardware Requirements

None.

Night Service—Night Station Service

Redirects incoming attendant-seeking trunk calls to designated extension numbers whenever the system is placed in Night Service.

Administration

Do not provide Night Console Service with this feature assigned.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Listed Directory Numbers	Night Destination	6-181
Trunk Groups:	Night Service	
Access		5-98
APLT		5-112
CO		5-123
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264
Hunt Groups	Night Service Destination	6-160
Attendant Console	Feature Button Assignments	
	-hunt-ns	
	-trunk-ns	6-32
Station (multi-appearance)	Button/Feature Button Assignments	6-245
	-night-ser	
	-hunt-ns	
	-trunk-ns	

- LDN Form—Enter Night Destination extension that will receive LDN DID calls when the System is in the night service mode.
- Trunk Group Forms—Verify that the Night Service extension number of the answering voice terminal or group is specified for each desired trunk group, and where required, for specific trunk members.
- Hunt Group Form—Enter the Night Service Destination extension (or 0 for the attendant) where calls will direct when in the night service mode.
- Attendant Console/Station Forms—Assign feature buttons as required.

Hardware Requirements

None.

Night Service—Trunk Answer From Any Station

Allows voice terminal users to answer all incoming attendant-seeking calls when the attendant has activated the Night button on the primary console and when other voice terminals have not been designated to answer the calls and when a night console is not assigned or operational.

Administration

Do not provide a Night Console Position with this feature assigned.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Trunk Groups: Access APLT CO CPE DMI-BOS FX ISDN-PRI RLT Tandem Tie WATS	Night Service (blank)	5-98 5-112 5-123 5-137 5-144 5-180 5-195 5-221 5-232 5-247 5-264
Feature Access Codes	Trunk Answer Any Station Access Code	6-127
Console Parameters	Ext Alert Port (TAAS)	6-79

- Trunk Group Forms—Verify Night Service field is blank for the associated trunk group.
- Feature Access Codes Form—Verify feature access code is assigned for Trunk Answer Any Station Access Code field.
- Console Parameters Form—Assign a port on a TN742, TN746B, or TN769 Analog Line circuit pack to provide connection with an alerting device in the External Alerting Number Trunk Answer From Any Station (TAAS) field.

Hardware Requirements

Requires a port on a TN742, TN746B, or TN769 Analog Line circuit pack. A maximum of five alerting devices can be connected to one port. Also requires an external ringing device(s) positioned so that users can hear them.

Night Service—Trunk Group

Allows an attendant or a designated voice terminal user to individually assign a trunk group or all trunk groups to the night service mode.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -trunk-ns	6-245
Attendant Console	Feature Button Assignments -trunk-ns	6-32
Listed Directory Numbers	Night Destination	6-181

- Station Forms—Assign "trunk-ns" to a voice terminal button. Up to three buttons can be assigned to voice terminals in each trunk group. The trunk group number must be assigned to each button.
- Attendant Console Form—Assign "trunk-ns" feature button. Up to three buttons can be assigned per console. The trunk group number must be assigned to each button.
- Listed Directory Numbers Form—Complete Night Destination field if incoming LDN DID calls are to be directed to an extension or an attendant when the System is in the night service mode.

Hardware Requirements

None.

Off-Premises Station

Allows a voice terminal located outside the building where the switch is located to be connected to the System. If CO trunk circuits, the voice terminal must be analog and must be FCC-registered. Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—System Description*, 555-230-200, for cabling distance information for the various voice terminal types.

Administration

The following voice terminal types may be administered as OPS: 500, 2500, 7101, 7102A, 7103A, and 7104A. These Off-Premises Stations are administered similar to on-premises voice terminals. Refer to the appropriate voice terminal form for additional information.

Hardware Requirements

Requires cross-connecting capabilities and one port on a TN742, TN746B, or TN769 Analog Line or TN767 DS1 Tie Trunk circuit pack for each interface to be provided. Do not assign an OPS port on a 16-port TN746B Analog Line circuit pack. Note that the use of a Message Waiting indicator lamp on an OPS is not supported.

Personal Central Office Line (PCOL)

Provides a dedicated trunk for direct access to or from the public network for multi-appearance voice terminal users.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Personal Central Office Line Group	All	5-217
Station (multi-appearance)	Button/Feature Button Assignments -per-COLine (Grp:_) -aut-msg-wt (Ext:_)	6-245

- Personal Central Office Line Group (PCOLGs) Forms—Verify or complete all fields.
- Station Forms—Assign (per CO line) buttons to voice terminals in group. If LWC messages are to be stored for the PCOLG, assign a LWC Remote Message Waiting (aut-msg-wt) feature button with status lamp to one of the voice terminals in the group.

Hardware Requirements

Requires a port on a TN747B CO Trunk circuit pack for each CO, FX, or WATS trunk assigned as a PCOL. A maximum of 40 PCOLs can be assigned in the System.

Personalized Ringing

Allows users of certain voice terminals to uniquely identify their own calls. Each user can choose one of a number of possible ringing patterns.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
7303S Voice Terminal	Personalized Ringing Pattern	6-279
7305S Voice Terminal	Personalized Ringing Pattern	6-279
7404D Voice Terminal	Personalized Ringing Pattern	6-287
7406D Voice Terminal	Personalized Ringing Pattern	6-314
7407D Voice Terminal	Personalized Ringing Pattern	6-314
7434D Voice Terminal	Personalized Ringing Pattern	6-335
Callmaster Digital Voice Terminal	Personalized Ringing Pattern	6-348

- Voice Terminal Forms—Complete Personalized Ringing Pattern field for each 7303S, 7305S, 7404D, 7406D, 7407D, 7434D, and Callmaster digital voice terminal.

Note: The 7103A, 7404D, 7406D, 7407D, 7410D, 7434D, 7505D, 7506D, 7507D, 8503T, and Callmaster digital voice terminal users have the capability of setting their own ringing pattern. In the event of a power failure, the user-specified ringing pattern for a 7404D, 7406D, 7407D, 7410, or Callmaster Digital voice terminal is lost. In the case of BRI voice terminals, the user-specified ringing pattern is retained even in the event of a power failure.

Hardware Requirements

None.

Priority Calling

Provides a special form of call alerting between internal voice terminal users. The called voice terminal user receives a distinctive 3-burst alerting signal.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Priority Calling Access Code	6-127
Class of Service	Priority Calling	6-77
Attendant Console	Feature Button Assignments -priority	6-32
Station (multi-appearance)	Button/Feature Button Assignments -priority	6-245

- Feature Access Codes Form—Verify or assign Priority Calling Access Code field.
- COS Form—Verify Priority Calling field has correct permission.
- Attendant Console/Station Forms—Assign priority feature buttons as required.

Hardware Requirements

None.

Privacy—Attendant Lockout

Prevents an attendant from reentering a multiple-party connection held on the console unless recalled by a voice terminal user.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Console Parameters	Attendant Lockout	6-79

- Console Parameters Form—Enter "y" in Attendant Lockout field.

Hardware Requirements

None.

Privacy—Digits to Hide

Supports certain country requirements that specify a certain number of digits to be blanked from all calls.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Privacy—Digits to Hide	6-133

Privacy—Manual Exclusion

Allows multi-appearance voice terminal users to keep other users with appearances of the same extension number from bridging onto an existing call.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -exclusion	6-245

- Station Form—Assign Manual Exclusion button to voice terminals of members of a TEG and/or PCOL Group, as required.

Hardware Requirements

None.

Property Management System Interface

Provides a communications link between the System and a customer-owned Property Management System (PMS). The PMS allows a customer to control certain features used in both a hospital-type and a hotel/motel-type environment.

Administration

The Hospitality option must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

Also refer to the Names Registration feature for associated administration considerations.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Service	Client Room, Console Permission	6-77
Hospitality-Related System Parameters	All	6-154
Attendant Console	Feature Button Assignments -mwn-act -mwn-deact -check-in -check-out	6-32
Feature Access Codes	Hospitality Features	6-132
Station (multi-appearance) (Front Desk Terminal)	Button/Feature Button Assignments -mwn-act -mwn-deact -check-in -check-out	6-245
Netcon Data Module	All	6-109
Modular Processor Data Module	All	6-105
Data Line Data Module	All	6-89

- COS Form—Assign "y" to Client Room field for the COS to be used for guest voice terminals. For the Console Permission, assign "y" for the Class of Service assigned to the attendant and front desk voice terminal. This allows the attendant or front desk station to control the following items:
 - Check-in

- Check-out
 - Room change
 - Swap Maid Status
- Hospitality-Related System Parameters Form—Complete all fields.
- Attendant Console/Station Forms—Assign mwn-act (message waiting activation), mwn-deact (message waiting deactivation), check-in, and check-out buttons. These buttons can be assigned to the attendant console and display-equipped front desk voice terminals.
- Feature Access Codes Form—Assign Hospitality Feature Access Codes as required.
- Netcon Data Module Form—Complete all fields as required. Provides a data channel for the PMS interface.
- MPDM Form—Complete all fields. Assign three different PDMs as follows: assign one PDM for the PMS link and one PDM for each printer (Log and Journal).
- Data Line Data Module Form—Complete all fields. Complete this form if the PMS link is connected using a Data Line circuit pack.

Hardware Requirements

The PMS link can be connected to a TN754B Digital Line circuit pack using a PDM or a TN726B Data Line circuit pack using an ADU. The Journal and Log printers can be connected to a TN754B Digital Line circuit pack via a PDM interface.

Queue Status Indications

Provides indications of queue status for ACD calls based on the number of calls in queue and time in queue. These indications are provided via lamps assigned to the terminals or consoles of split agents or supervisors. In addition, auxiliary queue warning lamps can be provided to track queue status based on time in queue and number of calls in queue. Also, display-equipped voice terminals and consoles can display the time in queue of a split's oldest call and the number of calls in that split's queue.

Administration

The ACD option must be enabled on the System-Parameters Customer-Options form before fields on associated forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Hunt Groups	Queue Length Calls Warning Threshold Time Warning Threshold Time Warning Port Calls Warning Port	6-160
Station (multi-appearance)	Button/Feature Button Assignments -q-calls -q-time	6-245
Attendant Console	Feature Button Assignments -atd-qcalls -atd-qtime	6-32

- Hunt Groups Form—Assign the number of calls that can queue before the System flashes the queue status buttons and the Auxiliary Warning lamp assigned to the split.
 - Assign the time a call can remain in the queue before the System flashes the queue status buttons and the Auxiliary Warning lamp assigned to the split.
 - Assign ports for the external Auxiliary Warning lamps.
- Station Forms—Assign calls and time buttons.
- Attendant Console Form—Assign atd-qcalls and atd-qtime buttons.

Hardware Requirements

Each auxiliary queue Warning lamp requires one port on a TN742, TN746B, or TN769 Analog Line circuit pack. A 21C-49 lamp may be used as an auxiliary queue Warning lamp.

Recorded Announcements

Allows up to 128 analog or integrated announcements or any desired combination of both. Integrated announcements are assigned on the TN750 Announcement circuit pack. The analog announcements are assigned on the TN742, TN746B, or TN769 Analog Line circuit pack which is connected to external recording or playback equipment.

Announcement administration allows the assignment of an extension to an announcement device at an analog port or to an announcement on an integrated announcement board. A recorded message may be accessed by dialing the extension assigned the announcement on the Recorded Announcement form. References to a particular announcement extensions may be found on: Hunt Group form, Coverage Path form, Trunk Group (Incoming Destination) form, Call Vector form, and Feature-Related System Parameters form (DID/Tie/ISDN Intercept Treatment and Controlled Restriction fields).

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Recorded Announcements	All	6-198
Recorded Announcement Data Module	All	6-115
Netcon Data Module	All	6-109
Trunk Groups:	Incoming Destination	
CO		5-123
DMI-BOS		5-144
FX		5-180
WATS		5-264
Feature-Related System Parameters	DID Intercept Treatment	6-133
Feature Access Codes	Announcement Access Code	6-127
Call Coverage Paths	Point1, Point2, Point3	6-55
Hunt Groups	First and Second Announcement Extensions	6-160
Station	COS	6-245

- Recorded Announcements Form—Complete all fields as required.
- Recorded Announcement Data Module Form—Complete all fields for a recorded announcement data module.
- Netcon Data Module Form—Complete all fields for a Netcon data module. Provides for the Upload/download (store/restore to/from tape) of TN750 recorded announcements.

- CO, DMI-BOS, FX, WATS Trunk Group Forms—Assign a recorded announcement extension number to the Incoming Destination field, as required.
- Feature-Related System Parameters Form—Assign a recorded announcement extension number to the DID Intercept Treatment field, as required.
- Feature Access Codes Form—Assign announcement access code.
- Call Coverage Path Form—Assign a recorded announcement extension number to a coverage point (Point1, Point2, Point3), as required.
- Hunt Groups Form—Assign a recorded announcement extension number to the First and Second Announcement Extension fields, as required.
- Station Forms—Verify that the voice terminal has a COS with Console Permission so that the user can enter an announcement.

To make, change, listen to, or delete an announcement, the user dials the announcement access code and the extension number. The user then performs one of the following tasks:

- Presses **[1]** to record an announcement (record a new announcement or record over an existing announcement). When the recording is complete, the user either pushes **[Drop]** on the voice terminal or hangs up.
- Presses **[2]** to listen to an announcement. (A user can also simply dial the announcement extension number to listen to an announcement.) A busy tone indicates there is no recording.
- Presses **[3]** to delete an announcement.

Announcements can also be recorded from off-switch using the Remote Access feature, provided that the Remote Access Form assigns a COS with console permissions.

Hardware Requirements

Each analog announcement to be provided requires a port on a TN742, TN746B, or TN769 Analog Line circuit pack. The analog recorded announcement equipment and music sources are not provided with the System. Each access of an integrated announcement requires a port on the TN750 Announcement circuit pack. Since the integrated announcement is recorded onto the TN750 circuit pack no announcement equipment is required.

Recorded Telephone Dictation Access

Permits voice terminal users, including Remote Access and incoming tie trunk users, to access dictation equipment.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
CPE Trunk Group	All fields if the trunk group is not assigned, or assign trunk port for digital switch interface.	5-137
—or 2500 Voice Terminal	All	6-260

- CPE Trunk Group Form—Verify or assign an auxiliary trunk group and associated trunk port.
- Station Form—Assign a port and extension number to 2500-series voice terminal form. Enter "n" in the tests field to prevent interference with dictation equipment operation.

Hardware Requirements

Requires telephone dictation machines and, depending on the type of machine, one port on a TN742, TN746B, or TN769 Analog Line circuit pack or one port on a TN763C Auxiliary Trunk circuit pack for each dictation machine to be interfaced.

Release Link Trunk Group

A Release Link Trunk Group is used to implement the CAS feature.

Administration

To assign a Release Link Trunk Group, the following form must be completed.

Form	Field	Form Instructions (Page #)
Release Link Trunk Group	All	5-221

- Release Link Trunk Group Form—Complete all fields as required to assign trunks that are used to implement CAS. Associated release link trunks can originate calls going out or receive calls coming in, depending on the trunk direction (incoming or outgoing), although signaling direction can be either incoming or outgoing, but not two-way. There is no dial access. The trunk-type is always release link. Outgoing and incoming dialing type is always tone and the disconnect timing is 280 milliseconds.

Hardware Requirements

A port is required on a TN722B or TN767 circuit pack for each trunk to be assigned in the Trunk Group. A TN722B or TN767 provides 24 ports.

Remote Access

Permits authorized callers using the public network to access the System and then use its features and services.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Remote Access	All	6-203
Trunk Groups:	Incoming Destination	5-92
CO	Night Service	5-180
FX		5-195
ISDN-PRI		5-264
WATS		
DID	All	5-156

- Remote Access Form—Complete all fields. This provides Remote Access via DID if the assigned Remote Access Extension number is within the range of numbers dialable from the local CO.
- Trunk Group Forms:
 - Optionally, on a per-trunk group basis, verify or set the Incoming Destination field to the Remote Access Extension number to provide the feature via a dedicated trunk group (Trunk Group Form for incoming trunk groups, except DID).
 - Optionally, on a per-trunk group basis, verify that Incoming Destination section is equal to "0" (attendant). Verify or set Night Service field to the Remote Access Extension number to provide Remote Access for attendant seeking calls whenever the Night key is pressed and an Alternate Console Position is not provided (Trunk Group form for incoming trunks, except DID).
 - Complete DID trunk group form as required.

Hardware Requirements

None.

Remote Administration

Allows the System to be administered from a remote terminal located on the customer's premises. A local administration terminal is one that is located on-premises within 50 feet of the System cabinet. A terminal located more than 50 feet from the System cabinet is considered remote. A remote administration terminal can be on-premises or off-premises. The remote terminal can perform the same functions as the local terminal.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

On-Premises Remote Administration

Form	Field	Form Instructions (Page #)
Netcon Data Module	All	6-109
Data Line Data Module	All	6-89
Hunt Groups	Group Extension Group Members Assignments	6-160

Off-Premises Remote Administration

Form	Field	Form Instructions (Page #)
Netcon Data Module	All	6-109
Data Line Data Module	All	6-89
Hunt Groups	Group Extension Group Members Assignments	6-160
Modem Pool Group	All	6-187
Trunk Group (DID System)		
DID Trunk Group	All	5-156
or		
CO Trunk Group	All	5-123
Trunk Group (Non-DID System)		
-CO Trunk Group	All	5-123

- NetCon Data Module Form—Complete all appropriate fields. Provides a data channel for the G3-MT interface.

- Data Line Data Module Form (DLDM)—Complete all appropriate fields.
- Hunt Groups Form—Complete Group Extension and Group Members Assignment fields.

If the System will be remotely administered from an on-premises terminal, no additional translations are required. However, if the System will be remotely administered from an off-premises location via a dial-up facility, complete the following step.

- Modem Pool Group Form—Complete all appropriate fields.
- Trunk Group Form—Complete Trunk Group forms as follows:

DID equipped Systems	Using a DID trunk form, translate a new trunk group containing one DID trunk. The NAME (Tel. number) assigned in the GROUP MEMBER ASSIGNMENTS field must be the same DID number assigned to the UCD hunt group (see next item).
DID equipped Systems using a non-DID trunk	Using a CO trunk form, translate a new trunk group. In the INCOMING DESTINATION field and NIGHT SERVICE field, enter the UCD hunt group extension number (see next item).
Non-DID equipped Systems—calls made from Remote (off-premises) terminal will be to the LDN	If not translated previously, translate a trunk group containing the LDN.
Non-DID equipped Systems—calls made from Remote (off-premises) terminal will be to a trunk dedicated to Remote Administration	Using a CO trunk form, translate a new trunk group. In both the INCOMING DESTINATION and NIGHT SERVICE fields, enter the UCD group extension number (see Hunt Group form).

Hardware Requirements

On-Premises Remote

- Requires a port on a TN726B Data Line circuit pack and an associated ADU.
- a port on a TN754B Digital Line circuit pack terminated with a palm, dtm, 7400B data module OR
- a port on a TN556 BRI circuit pack terminated with a 7500B data module or ADM on a 7500D series voice terminal AND
- a 513 BCT, 610 BCT, 615 MT terminal, 715 BCS, 4410 terminal, 4425 terminal OR
- an analog modem and a switch equipped with a modem-pool AND
- a TN754B terminated on a 510 or 515 terminal.

Off-Premises Remote

- Requires a port on a TN726B Data Line circuit pack and associated ADU.
- Modem Pooling (see Modem Pooling).
- DID Trunk Group—Requires a port on a TN753 DID Trunk circuit pack.
- CO Trunk Group—Requires a port on a TN747B CO Trunk circuit pack.
- 513 BCT, 610 BCT, 615 MT terminal, 715 BCS, 4410 terminal, or 4425 terminal.
- Separate CO line to Processor circuit pack for Alarm Origination/Remote Administration.

Report Scheduler and System Printer

Allows the System Administrator to schedule selected G3-MT (that is, System Access Terminal) commands to be printed by an associated printer. Reports are scheduled at 15-minute intervals for any combination of days of the week. Reports are scheduled using the **schedule** command line option on the G3-MT (for example, **list config all [sched]**). Up to a maximum of 50 individual reports can be scheduled.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Report Scheduler/System Printer Connected to MPDM/MTDM:

Form	Field	Form Instructions (Page #)
NetCon Data Module	All	6-109
MPDM/MTDM Data Module	All	6-105
Feature-Related System Parameters	System Printer Parameters Printer Extension EIA Device Bit Rate Lines per Page	6-133

Report Scheduler/System Printer Connected to DCE Jack on the Control Carrier:

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	System Printer Parameters Printer Extension EIA Device Bit Rate Lines per Page	6-133

Report Scheduler/System Printer Connected To Data Line Circuit Pack via Asynchronous Data Unit (ADU):

Form	Field	Form Instructions (Page #)
Data Line Data Module	All	6-89
Netcon Data Module	All	6-109
Feature-Related System Parameters	System Printer Parameters Printer Extension EIA Device Bit Rate Lines per Page	6-133

Complete the following forms if the Report Scheduler/System Printer is connected to an MPDM/MTDM:

- Netcon Data Module Form—Complete all fields as required. This form activates a physical channel on the TN777 Network Control circuit pack. An associated MPDM/MTDM Data Module form must also be completed to assign the associated MTDM interface from the Report Scheduler/System printer to the switch.
- MPDM/MTDM Form—Complete all fields if a 700A-type MPDM is to be used. This form is used to assign the Report Scheduler/System Printer to a port on a TN754B Digital Line circuit pack.
- Feature-Related System Parameters Form—Complete the Printer Extension (enter valid extension), EIA Device Bit Rate (1200, 2400, 4800, 9600), and Lines per Page (24 through 132 with 60 as the system default) fields associated with the System Printer Parameters.

Complete the following form if the Report Scheduler/System Printer is connected to the DCE jack on the Control Cabinet:

- Feature-Related System Parameters Form—Complete the Printer Extension (enter "eia"), EIA Device Bit Rate (1200, 2400, 4800, 9600), and Lines per Page (24-132 with 60 as the system default) fields associated with the System Printer Parameters.

Complete the following forms if the Report Scheduler/System Printer is connected to a TN726B Data Line circuit pack via ADU:

- DLDM Form—Complete all fields as required. The Data Line circuit pack provides an alternative to using an MPDM and is the preferred method. A Data Line circuit pack must be assigned if a port is not available using the Circuit Pack Administration form as shown in Chapter 2. Up to eight ports are available. A Z3A ADU is required at the printer input.

- Netcon Data Module Form—Complete all fields as required. This form activates a physical channel on the TN777 Network Control circuit pack
- Feature-Related System Parameters Form—Complete the Printer Extension (enter valid extension), EIA Device Bit Rate (1200, 2400, 4800, 9600), and Lines per Page (24 through 132 with 60 as the system default) fields associated with the System Printer Parameters.

Hardware Requirements

A single asynchronous System printer connection dedicated for use by the Report Scheduler is required. Other printers in the System include those connected to the G3-MT, the SMDR printer, and the journal printer. These printers **are not** used by the Report Scheduler. Currently, the Report Scheduler printer must be a serial input AT&T 475 or compatible printer.

The type of interface depends on how the Report Scheduler/System printer is connected to the digital switch.

- If the printer is connected to the switch via MPDM, the MPDM must be connected to a port on a TN754B Digital Line circuit pack when used.
- If the printer is connected to a TN726B Data Line circuit, a TN726B port and an Z3A ADU is required.
- If the printer is connected to the DCE jack on the back of the Control Cabinet, the appropriate cable (not to exceed 60 feet) is required.

Restricted/Unrestricted Call Lists

Used to control outgoing call access. The COR assigned the facility being used to place a call is checked to determine if it is associated with the System's Restricted Call List (RCL) and/or one or more Unrestricted Call Lists (UCLs). The System can have one RCL and up to 10 UCLs. All lists are administered on the Toll Analysis form. Dialed Strings and associated Min/Max fields on the form can be marked as being members of the RCL and/or UCLs as required.

A call attempt from a facility whose COR is administered as being associated with the RCL and whose dialed string matches a RCL Dialed String will be denied. The caller will receive intercept treatment.

A UCL is only accessed if the facilities COR's Calling Party Restriction field is "all-toll" or "tac-toll" and the COR's UCL field references one or more UCLs. A call from a facility whose COR meets the above conditions will complete if the COR is associated with a UCL whose dialed string matches the dialed number. Note that the call will not complete if the COR is also associated with the RCL and whose dialed string also matches the dialed number. The RCL takes precedence over the UCL.

For additional information, an Authorization Check Flow Chart is provided with the Toll Analysis form coverage in Chapter 6. The chart depicts the checks that call processing uses in determining call restrictions. (Other features that are administered on the Toll Analysis form include Restriction-Toll and SMDR Account Code Dialing.)

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Toll Analysis	Dialed String Min/Max RCL UCL (1-10)	6-216
Class of Restriction	RCL UCL (1-10)	6-70

- Toll Analysis Form—Complete the Dialed String, Min/Max, RCL, and UCL List fields as required.
- COR Form—Complete the RCL and UCL fields on each COR form as required.

Hardware Requirements

None.

Restriction—Controlled

Allows an attendant or voice terminal user with console permission to activate and deactivate the following restrictions for an individual voice terminal or a group of voice terminals:

- **Outward**—The voice terminal(s) cannot be used for placing calls to the public network. Such call attempts can receive an announcement, attendant, extension, or intercept tone.
- **Total**—The voice terminal(s) cannot be used for placing or receiving calls. DID calls can receive an announcement, attendant, extension, or intercept tone.
- **Station-to-Station**—The voice terminal cannot receive or place station-to-station calls. Such call attempts can receive an announcement, attendant, extension, or intercept tone.
- **Termination**—The voice terminal cannot receive any calls. Incoming calls can receive an announcement, attendant, extension, or intercept tone.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	User Control Restrict Activation and Deactivation Group Control Restrict Activation and Deactivation	6-127
Feature-Related System Parameters	Controlled Outward Restriction Intercept Treatment Controlled Termination Restriction (Do Not Disturb) Controlled Station-to-Station Restriction	6-133

- **Feature Access Codes Form**—Verify or assign User Control Restrict Activation and Deactivation and Group Control Restrict Activation and Deactivation fields.
- **Feature-Related System Parameters Form**—Assign the type of interface treatment the caller receives when the call is outward restricted. Assign the type of intercept treatment the caller receives when the call is placed to a termination restricted voice terminal. Enter the type of intercept treatment the caller receives when the call is placed to a restricted voice terminal.

Hardware Requirements

None.

Restriction—Miscellaneous Terminal

Restricts a caller from accessing a pre-selected group of voice or data terminals. The restriction is controlled by the COR assigned to the calling party's voice terminal and the COR assigned to pre-selected groups of voice and data terminals. The calling party's COR either allows or denies access to the COR assigned to the called facility. Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	All	6-72
Station	COR	6-245
Remote Access	COR	6-203
Hunt Groups	COR	6-160
Terminating Extension Group	COR	6-214
Trunk Groups:	COR	
Access		5-98
APLT		5-112
CO		5-123
CPE		5-137
DMI-BOS		5-144
DID		5-156
FX		5-180
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264
Vector Directory Number	COR	6-222

● COR Forms:

- Voice/Data Terminals—Verify or establish a COR for a group of voice or data terminals.
- Originating Facility—Verify or establish a COR for each originating facility that is to be restricted from calling the miscellaneous trunk group types. (These CORs can be different.) To assign this capability on the originating facilities COR form(s), the calling permission field associated with the CORs of the trunk groups to be restricted must have an "n."

- Station Forms—Assign the same COR to the miscellaneous group of voice terminals. Include the associated data module form if station has a DTDM.
- Remote Access Form—Assign the miscellaneous COR to barrier codes.
- Hunt Group Form—Assign the miscellaneous COR to UCD/DDC groups.
- TEG Form—Assign the miscellaneous COR to the group.
- Trunk Groups Forms—Assign the selected COR to incoming trunk groups and/or terminals. (CORs already assigned can be used if all users with the CORs will be restricted.)
- VDN Form—Assign the miscellaneous COR to the appropriate VDNs.

Hardware Requirements

None.

Restriction—Miscellaneous Trunk

Restricts users at specified voice terminals from accessing preselected groups of trunks, such as CO, CPE, etc. Any or all trunk groups can be in a given miscellaneous trunk restriction group. The restriction is controlled by the CORs assigned to the facility or item of hardware that originates the call and the trunk group being accessed. The calling party's COR can either allow or deny access to the COR assigned the calling facility. Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	All	6-72
Trunk Groups:	COR	
Access		5-98
APLT		5-112
CO		5-123
CPE		5-137
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264
Station	COR	6-245

● COR Forms

- Trunk Groups to be Restricted—Verify or establish a COR for various trunk group types that are to be restricted. Assign the same COR to each group.
- Originating Facility—Verify or establish a COR for each originating facility (that is, voice terminal, etc.) that is to be restricted from calling the miscellaneous trunk group types. (These CORs can be different.) To assign this capability on the originating facilities COR form(s), the calling permission field associated with the CORs of the trunk groups to be restricted must have an "n."

- Trunk Group Forms—Assign an appropriate (the same to each) COR to each trunk group to be restricted.
- Station Forms—Assign the appropriate CORs to the voice terminals. (CORs already assigned can be used if all users with the CORs will be restricted.)

Hardware Requirements

None.

Restriction—Toll

Restricts users at specified voice terminals from placing public network calls to certain numbers designated as toll calls by the System Administrator.

User Toll Restriction is administered on COR forms as follows:

- All Toll—Denies the calling party the ability to make both ARS and trunk access calls to certain toll areas as defined on the System's Toll Analysis form, unless the exchange is on a UCL. The UCL is defined on the Toll Analysis form and appropriate UCL numbers are assigned on the Class of Restriction forms.
- TAC Toll—Denies the calling party from making trunk access calls to certain toll areas as defined on the Toll Analysis form, unless the exchange is on a UCL associated with the calling party's COR.

If the System is connected to a central office that uses a step-by-step switch, all seven of the digits which are normally dialed for a local call may not be required by the CO to route the call. For example, the CO may only require the last five of the normally dialed seven digits. If all seven digits are dialed, the step-by-step switch uses digit absorption to absorb the unneeded digits. Digit absorption can be provided within the System to emulate the absorption at the CO. This prevents users from bypassing toll restriction by dialing unneeded digits. For example, assume that the central office absorbs leading 7s before processing a number and that a toll-restricted user wants to call someone in area code 201. The user could dial 77-1-201 plus seven more digits. The Toll Restriction feature would not recognize the call as a toll call and the CO would route the call. With digit absorption, the 77 is absorbed by the System before Toll Restriction is used. Thus, the call would be denied, as intended. Up to five digit absorption lists can be assigned.

Note that if a Digit Absorption list (see Digit Absorption in Chapter 6) is assigned to a CO or FX trunk group, then entries on the Toll Analysis form (Chapter 6) may not be used to determine if a TAC call routed over one of these trunk groups is a toll call. The following rules apply:

- If the Digit Absorption list causes *no digits* to be absorbed for a particular call, then the Toll Analysis Form is used.
- If the Digit Absorption list causes *one or more digits* to be absorbed for a particular call, then the Toll Analysis Form is *not* used. Instead, if the first non-absorbed digit is either "0" or "1" and the caller is toll restricted, the call is denied.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Toll Analysis	All	6-216
Class of Restriction	All	6-72
Console Parameters	COR	6-79
Station	COR	6-245
Data Line Data Module	COR	6-89
Attendant Console	COR	6-32
Trunk Group (CO)	Toll Restricted	5-123
Trunk Group (FX)	Toll Restricted	5-180
Digit Absorption	All	6-107

- Toll Analysis Form—Complete all entries as required to administer certain dialed digit string to the System's Toll List. Enter "x" in the associated Toll List field to associate the dialed string to the toll list. Complete appropriate UCL fields to assign certain dialed digit strings as unrestricted.
- COR Form—Verify or establish CORs with a Calling Party Restriction of "all-toll" or "tac-toll." Complete the Unrestricted Call List fields (enter appropriate UCL numbers from the System's Toll Analysis form).
- Station, DLDM, and Console Parameters Forms—Assign an applicable COR to each voice terminal, data module, and attendant console group that is to be toll restricted.
- FX and CO Trunk Group Forms—Verify or assign appropriate FX and CO trunk groups as toll restricted; enter "y" (yes) in the Toll Restriction field (default). Enter "n" if you want to disable toll restriction to trunk access code type calls on this trunk group.
- Digit Absorption Form—Complete all appropriate fields. The Digit Absorption list number must be assigned to the appropriate CO and/or FX trunk groups.

Hardware Requirements

None.

Restriction—Voice Terminal—Inward

Restricts callers at specified voice terminals from receiving public network, attendant-originated, and attendant-extended calls. A denied call is routed to intercept tone, a recorded announcement, or the attendant for DID calls. Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	Called Party Restriction (Inward)	6-72
Station	COR	6-245

- COR Form—Verify or establish COR with Called Party Restriction of "Inward."
- Station Forms—Assign COR to voice terminal.

Hardware Requirements

None.

Restriction—Voice Terminal—Manual Terminating Line

Restricts callers at specified voice terminals from receiving calls other than those from an attendant. Local CO, FX and WATS calls are routed to the attendant. DID calls are routed to an announcement or the attendant Tie trunk, and voice terminal calls are routed to intercept treatment. The voice terminal user can originate calls and activate features. Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	Called Party Restriction (Manual)	6-72
Station	COR	6-245

- COR Form—Verify or establish COR with Called Party Restriction of "Manual."
- Station Forms—Assign COR to voice terminal.

Hardware Requirements

None.

Restriction—Voice Terminal—Origination

Restricts callers at specified voice terminals from originating calls. Voice terminal users can receive calls. Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	Calling Party Restriction (Origination)	6-72
Station	COR	6-245

- COR Form—Verify or establish COR with Calling Party Restriction of "Origination."
- Station Forms—Assign COR to voice terminal.

Hardware Requirements

None.

Restriction—Voice Terminal—Outward

Prevents specified voice terminal users from placing calls to the public network. Calls can be placed to other voice terminal users, to the attendant, and over tie trunks. Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form instructions (Page #)
Class of Restriction	Calling Party Restriction (Outward)	6-72
Station	COR	6-245

- COR Form—Verify or establish COR with Calling Party Restriction of "Outward."
- Station Forms—Assign COR to voice terminal.

Hardware Requirements

None.

Restriction—Voice Terminal—Termination

Restricts voice terminal users on specified extension numbers from receiving any calls. Voice terminal users can originate calls. DID or APLT calls are routed to a recorded announcement or the attendant. Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	Called Party Restriction (Termination)	6-72
Station	COR	6-245

- COR Form—Verify or establish COR with Called Party Restriction of "Termination."
- Station Forms—Assign COR to voice terminal.

Hardware Requirements

None.

Ringback Queuing

Places outgoing calls in an ordered queue (first-in, first-out) when all trunks are busy. The voice terminal user is automatically called back when a trunk becomes available. The voice terminal receives a distinctive 3-burst alerting signal (Priority Calling) when called back.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Trunk Groups:	Queue Length	
Access		5-98
APLT		5-112
CO		5-123
CPE		5-137
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264
Feature-Related System Parameters	Automatic Callback-No Answer Timeout Interval	6-133
Feature Access Codes	Automatic Callback Activation/Deactivation	6-127
Station (multi-appearance)	Buttons/Feature Button Assignments auto-cback	6-245

- Trunk Group Forms for outgoing Trunk Groups—Verify or assign queuing to queue Length field.
- Feature-Related System Parameters Form—Specify Automatic Callback-No Answer Timeout Interval (rings) field.
- Feature Access Codes Form—Verify or assign Automatic Callback Activation and Deactivation fields.
- Station Forms—Assign Auto Callback buttons to multi-appearance voice terminals, as desired.

Note: Automatic Callback and Ringback Queuing share the same intervals, codes, and buttons.

Hardware Requirements

None.

Ringer Cutoff

Allows users of multi-appearance voice terminals to turn on or off certain audible ringing signals. Visual alerting is not affected by this feature.

When this feature is enabled, only Priority ringing (3-burst ringing), Intercom ringing, and Manual Signaling ringing will ring at the voice terminal. 1-burst, 2-burst, and redirection notification will not ring. When this feature is disabled, the voice terminal will have normal ringing.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (multi-appearance)	Button/Feature Button Assignments -ringer-off	6-245

- Station Forms-Assign "ringer-off" to a voice terminal feature button. One button may be assigned per voice terminal.

Hardware Requirements

None.

Security Violation Notification

The Security Violation Notification (SVN) feature provides the capability to immediately detect an imminent breach of System Management or Remote Access, and to notify a designated referral destination upon detection. It is intended to detect failed login and Remote Access (barrier code) attempts based on customer- administrable thresholds. Once a threshold is reached, for either of these avenues of access, (System Management login or Remote Access barrier code), the System will initiate a referral call to an assigned referral point (attendant console or station equipped with a display module).

An audit trail of the security violations, containing relevant information about each failed attempt to access the System, will be available through the *monitor security-violations* command. This command will refresh the information that is displayed every 30 seconds, providing an up to date view of fallacious system access activity.

Information about invalid login attempts is collected at two levels:

- On an immediate basis, when an invalid login attempt is made, the SVN feature can be used to send a priority call to a designated referral point (attendant console or station equipped with a display module) so that there is some chance of apprehending the violator during the attempted violation. Upon notification, the security administrator can request the Security Violations Status Report which will show details of the last 16 security violations of each type.
- On a historical basis, the number of security violations of each type are collected and reported in the Security Violations Measurements Report. This report shows summary information since the last time that the counters were reset at the time of system initialization or by the *clear measurements security-violations* command. It does not show details of the individual security violations.

The Security Violations Measurement Report (historical) is generally available in all systems without special prerequisites.

Commands are available for displaying and clearing the Security Violation Report. To display the report, enter:

```
list measurements security-violations [print] or [schedule]
```

Options: The two options for the above command are: "print" and "schedule."

To reset all counters of the Security Violation Report to zero, enter:

```
clear measurements security-violations
```

Note: Security measurements are accumulated until they are cleared.

Options: There are no options for the above command.

A typical Security Violation Measurements Report and a detailed description of the meaning of the data presented in the report are provided in *DEFINITY® Communications System Generic 1 and Generic 3i System Reports, 555-204-510*.

Status Report

The Security Violations Status Report provides current status information for invalid G3-MT or SAT-PC login or Remote Access (barrier code) attempts. Invalid G3-MT or SAT-PC login attempts will log the time the violation occurred, the login entered, the port that was accessed during the failed login attempt, and the extension assigned to the port (if applicable).

Note: The above applies only in the case of the Network Controller dial-up ports.

Invalid barrier code attempts will log the time the violation occurred, the number of the trunk group that was accessed, the trunk group member number, and the extension assigned to Remote Access. A total of 16 entries will be maintained for each type of invalid access (local or remote).

To display the Security Violation Status Report, enter:

```
monitor security-violations [print]
```

Options: There is one option for this command: "print."

A typical Security Violation Status report and a detailed description of the meaning of the data presented in the report are provided in *DEFINITY® Communications System Generic 1 and Generic 3i System Reports, 555-204-510*.

Administration

To implement the SVN feature the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Security Violation Notification Parameters	6-133
Station (multi-appearance/) Attendant display	Button/Feature Button Assignments (lsvn-call) (rsvn-call)	6-245

- **Feature-Related**—Complete all appropriate SVN Parameters on Page 5 of the form.

After completing Page 5 of the Feature-Related System Parameters form, you should then administer and activate any previously unadministered call-appearance buttons as the "lsvn-call" and "rsvn-call" buttons on any station. Activation of these buttons allows an SVN referral call to terminate to the designated referral destination extension.

Note: If the lsvn-call or rsvn-call feature button is deactivated, login and remote access violations can still be viewed at the G3-MT or SAT-PC via the monitor security violations command. A referral call will not be not spawned unless the lsvn-call or rsvn-call feature button has been administered and activated.

Additional Considerations

When implementing the SVN feature, bear in mind the following:

- A maximum of one Referral Destination for each type of violation (login or remote access) may be administered per switch.
- The Call Coverage, Call Forwarding, and Call Pickup (for example, within pickup group) features are not supported for SVN.
- CAS attendants will not receive referral calls from branch locations.
- Referral Destination must be local because SVN does not support a DCS network interface.
- Unlike the ACA referral call, the SVN referral call is a priority call.
- Unlike ACA, Speech Synthesis Circuit pack functionality is not currently supported for SVN.

Hardware Requirements

None.

Send All Calls

Allows users to temporarily direct all incoming calls to coverage regardless of the assigned Call Coverage redirection criteria. Send All Calls also allows covering users to temporarily remove their voice terminals from the coverage path.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	Send All Calls Activation and Deactivation	6-127
Station (multi-appearance)	Button/Feature Button Assignments -send-calls	6-245
Call Coverage Paths	All	6-55

- Feature Access Codes Form—Assign an Activation and a Deactivation access code for Send All Calls.
- Station Forms—Assign a Send All Calls button.
- Call Coverage Paths Form—Complete all fields as required to establish the call redirection criteria.

Hardware Requirements

None.

Service Observing

Allows a specified user, such as a supervisor, to observe a call that involves other users while the call is in progress. While observing a call, the specified user can toggle between a listen-only and a listen/talk connection to the call. Note that Service Observing cannot be used toward a VDN extension.

Note: The use of Service Observing features may be subject to federal, state, or local laws, rules or regulations or require the consent of one or both of the parties to the conversation. Customers should familiarize themselves with and comply with all applicable laws, rules and regulations before using these features.

Administration

The optional Service Observing feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Class of Restriction	Service Observing	6-72
Feature-Related System Parameters	Service Observing Warning Tone	6-133
Station (multi-appearance)	Button/Feature Button Assignment -serv-obsrv	6-245
Attendant Console	Feature Button Assignments -serv-obsrv	6-32

- COR Form—Complete Service Observing field.
- Feature-Related System Parameters Form—Assign "y" to Service Observing Warning Tone field.
- Station Forms—Assign one serv-obsrv (service observing) button.
- Attendant Console Form—Assign a serv-obsrv button per attendant console.

Hardware Requirements

None.

Single-Digit Dialing and Mixed Station Numbering

Allows easy access to internal hotel/motel services and provides the capability to associate room numbers with guest room voice terminals.

Administration

To implement this feature, the following, form(s) or section of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Dial Plan	All	6-117

Hardware Requirements

None.

SMDR Account Code Dialing

Allows certain calls to be associated with a particular project or account number. This is accomplished by dialing a SMDR Account Code feature access code and then the appropriate account code before making outgoing calls. This information is recorded by the SMDR feature and can be used later for accounting and/or billing purposes.

Note that the Forced Entry of Account Codes feature is covered elsewhere in this chapter.

Administration

To implement SMDR Account Code Dialing, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	SMDR Account Code Length	6-127
Feature-Related System Parameters	SMDR Account Code Length	6-133

- Feature Access Codes Form—Assign an appropriate access code to the SMDR Account Code Access Code field (system default is *6).
- Feature-Related System Parameters Form—Complete SMDR Account Code Length field.

Hardware Requirements

None.

SMDR Enhancements for PPM (International G1.1SE and G1.2SE)

Note: The SMDR output interface has been modified to include two new SMDR record formats. The formats are identical to the TELESEER® SMDR Unit and "printer" formats used in International System 75 (IR1V2) and provide Periodic Pulse Metering (PPM) pulse counts in the output record.

Uses pulses transmitted over the trunk line from the serving CO at periodic intervals during the course of the outgoing call to determine call charges. Each pulse has an intrinsic value; at the end of the call, the sum of the pulses represents the charges for the call. The more expensive the call, the faster the sending rate of the pulses becomes.

The TN465 Loop Start CO Trunk circuit pack is capable of detecting 16-kHz PPM pulses. The pulses can occur at a maximum of once every 1.4 seconds during the call or, if the CO accumulates the total PPM count, they can occur up to 3 to 5 seconds after the call is dropped. In order to ensure that delayed PPM data is received, the Outgoing Glare Guard Timer on the trunk group should be adjusted accordingly. Once the trunk circuit has collected the PPM count, the SMDR output may be either an International TELESEER or International Printer record. Each of the records has a format to include PPM pulse count information.

Administration:

To implement this feature, the following form(s) or section(s) of forms must be completed.

Form	Field	Form Instructions (Page #)
CO	PPM	5-123
DIOD		5-167
FX		5-180
PCOL		5-217
WATS		5-264

Hardware Requirements:

- TN465 CO Loop Start Trunk circuit pack supports PPM pulse detection over associated trunks assigned to CO, FX, WATS, and PCOL Groups.

Software Defined Data Network

Software Defined Data Network (SDDN) provides virtual private line connectivity via the AT&T switched network (4ESS switch). Access to the service is provided by the ISDN-PRI feature. These services complement the SDN voice services.

SDDN offers an attractive alternative to the traditional design of data communications networks, through high speed data networking, extensive functionality, advanced call handling capabilities, and network flexibility.

SDDN also offers the Automatic Restoration capability, which restores disrupted administered connections between access/data endpoints. (Access endpoints are non-signaling trunks and data endpoints are devices that connect the switch to data terminal/communications equipment.) This restoration is achieved within seconds of a service disruption so that critical data applications can remain operational. The Auto Restoration function is described in more detail in the Administered Connections feature description provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201. Also refer to the Administered Connection/Access Endpoint feature coverage elsewhere in this Chapter for additional information associated with SDDN and Administered Connections.

SDDN is well suited for data communications applications which have one or more of the following characteristic:

- Have a time window for completion (performed during night, morning, or other specified time periods).
- Have requirements for high speed data or high volume data.
- Have restoration requirements. These are critical applications which must remain operational in the event of a network failure.
- Have multiple end-point destinations (require serial or non-simultaneous communication between an originating point and several endpoints).
- Would benefit from network flexibility (traffic patterns show daily or seasonal variations, and may change as the network grows).

Administration

Refer to the Administered Connection/Access Endpoint and Integrated SDN-PRI features (this chapter) for administration information and associated hardware requirements.

Station Message Detail Recording (SMDR)

Note: This section deals with Station Message Detail Recording (SMDR). For information on the Intra-switch SMDR feature, refer to the "Intra-switch SMDR" section in this chapter.

Records detailed call information on all incoming and outgoing calls on specified trunk groups and sends this information to a SMDR output device. (Intra-switch SMDR records internal calls.) The SMDR output device provides a detailed printout that can be used by the System Manager to compute call costs, allocate charges, analyze calling patterns, and keep track of unnecessary calls.

Figure 4-18 provides typical System SMDR connections and Figure 4-19 provides typical SMDR connections to a 3B2 Message Server adjunct.

Administration

The System forms listed in the first table that follows must be completed to assign SMDR. In addition, depending on the SMDR output device connection to the digital switch, System forms as listed in either the second, third, fourth, or fifth table must also be completed.

Form	Field	Form Instructions (Page #)
Trunk Groups:	SMDR Reports	
Access	Answer Supervision	5-98
APLT	Timeout	5-112
CO		5-123
CPE		5-137
DMI-BOS		5-144
DID		5-156
DIOD*		5-167
FX		5-180
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264
Personal Central Office Line Groups (PCOLGs)	SMDR Reports	5-217
Loudspeaker Paging and Code Calling Access	SMDR	6-183
Feature-Related System Parameters	SMDR Parameters (all fields)	6-133
Inter-Exchange Carrier (IXC) Codes	All	6-133
Feature Access Codes	SMDR Account Code Access Code	6-127

- International G1.2SE only

SMDR Output Device Connected To MPDM/MTDM:

Form	Field	Form Instructions (Page #)
Netcon Data Module	All	6-109
MPDM/MTDM Data Module	All	6-105

SMDR Output Device Connected To Message Server Adjunct:

Form	Field	Form Instructions (Page #)
Processor Interface Data Module	All	6-112
MPDM/MTDM Data Module	All	6-105
Processor Channel Assignment	All	6-194
Interface Links	All	6-175

SMDR Output Device Connected to DCE Jack on the Control Carrier

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	EIA Device Bit Rate Primary output Layout Secondary output Layout Primary/Secondary Output Extension	6-133

SMDR Output Device Connected To Data Line Circuit Pack and Asynchronous Data Unit (ADU):

Form	Field	Form Instructions (Page #)
Data Line Data Module	All	6-89
Netcon Data Module	All	6-109

SMDR Output Device Connected To 212A-type Modem:

Form	Field	Form Instructions (Page #)
Modem Pool Group (integrated)	All, if not already assigned; otherwise, verify that a circuit pack assignment has been made.	6-187
Station-2500 type	All	6-260

- Trunk Group Forms—Complete SMDR Reports field. Enter a number 0 through 250 in the Answer Supervision Timeout field. This field specifies the amount of time in seconds at which the System will assume it received answer supervision for a call. This interval begins as soon as the outgoing trunk is seized.
- PCOLGs Form—Complete SMDR Reports field.
- Loudspeaker Paging and Code Calling Access Form—Complete SMDR field.
- Feature-Related System Parameters Form—Complete all SMDR Parameters fields as required.
- IXC Codes Form—Assign IXC codes where applicable to allow identification of the IXC on the SMDR report. If no carriers are specified, the SMDR record will contain a "0" in the IXC code field on the SMDR printout.
- Feature Access Codes Form—Complete SMDR Account Code Access Code field.

Complete the following forms if the SMDR output device is connected to MPDM/MTDM:

- Netcon Data Module Form—Complete all fields as required. This form activates a physical channel on the TN777 Network Control circuit pack. An associated MPDM/MTDM Data Module form must also be completed to assign the associated MTDM interface from the SMDR output device to the switch.
- MPDM/MTDM Data Module Form—Complete all fields if a 700A-type MPDM is to be used. The 700A-MPDM/MTDM form can be used to connect the SMDR output device to a port on a TN754B Digital Line circuit pack.

Complete the following forms if the SMDR output device is connected to a MSA:

- Processor Interface Data Module—Complete all fields as required.
- MPDM/MTDM Data Module Form—Complete all fields if a 700B MTDM is to be used. The 700B-MTDM can be used to connect the SMDR output device to a port on a TN754B Digital Line circuit pack.
- Processor Channel Assignment Form—Complete the required fields to assign a processor channel for the SMDR output device.
- Interface Links Form—Complete required fields to assign the SMDR output device interface link.

Complete the following form if the SMDR output device is connected to the DCE jack on the back of the Control Carrier.

- Feature-Related System Parameters Form—Complete the EIA Device Bit Rate, Primary/Secondary Output Layout, and Primary/Secondary Output Extension fields.

Complete the following forms if the SMDR output device is connected to a TN726B Data Line circuit pack via a Z3A ADU.

- Netcon Data Module—Complete all required fields.
- DLDM Form—Complete all fields as required. The Data Line circuit pack provides an alternative to MPDM and 212A-type modems for interconnection to SMDR output devices and is the preferred method. A Data Line circuit pack must be assigned using the Circuit Pack Administration form as described in Chapter 2. Up to eight ports are provided. A Z3A ADU is required at the SMDR output device.

Complete the following forms if the SMDR output device is connected to an integrated modem pool.

- Modem Pool Group Form—Complete all fields. Do not fill out this form if the SMDR output device is connected to an MPDM. This is used with the TN758 Pooled Modem circuit pack.
- Station Form—Complete the required fields for a 2500-type voice terminal. This is used with the TN742, TN746B, or TN769 Analog Line circuit pack and provides a dial-up extension for the associated 212-type modem.

Hardware Requirements

The type of data module required depends on how the SMDR output device is connected to the digital switch.

- An MPDM must be connected to a port on a TN754B Digital Line circuit pack if the SMDR output device is a Printer, AT&T TELESEER SMDR Unit.
- An MTDM must be connected to a port on a TN754B Digital Line circuit pack if the SMDR output device is a Host Computer or a 94A Local Storage Unit (LSU).
- If the SMDR output device is connected to a conventional modem, a TN758 Pooled Modem circuit pack and a TN742, TN746B, or TN769 Analog Line circuit pack must be installed.

- If the SMDR output device is connected to a DLDM, a TN726B Data Line circuit pack is required.
- If the SMDR output device is connected to the DCE jack on the back of the Control Carrier, the appropriate 50-foot cable is required.

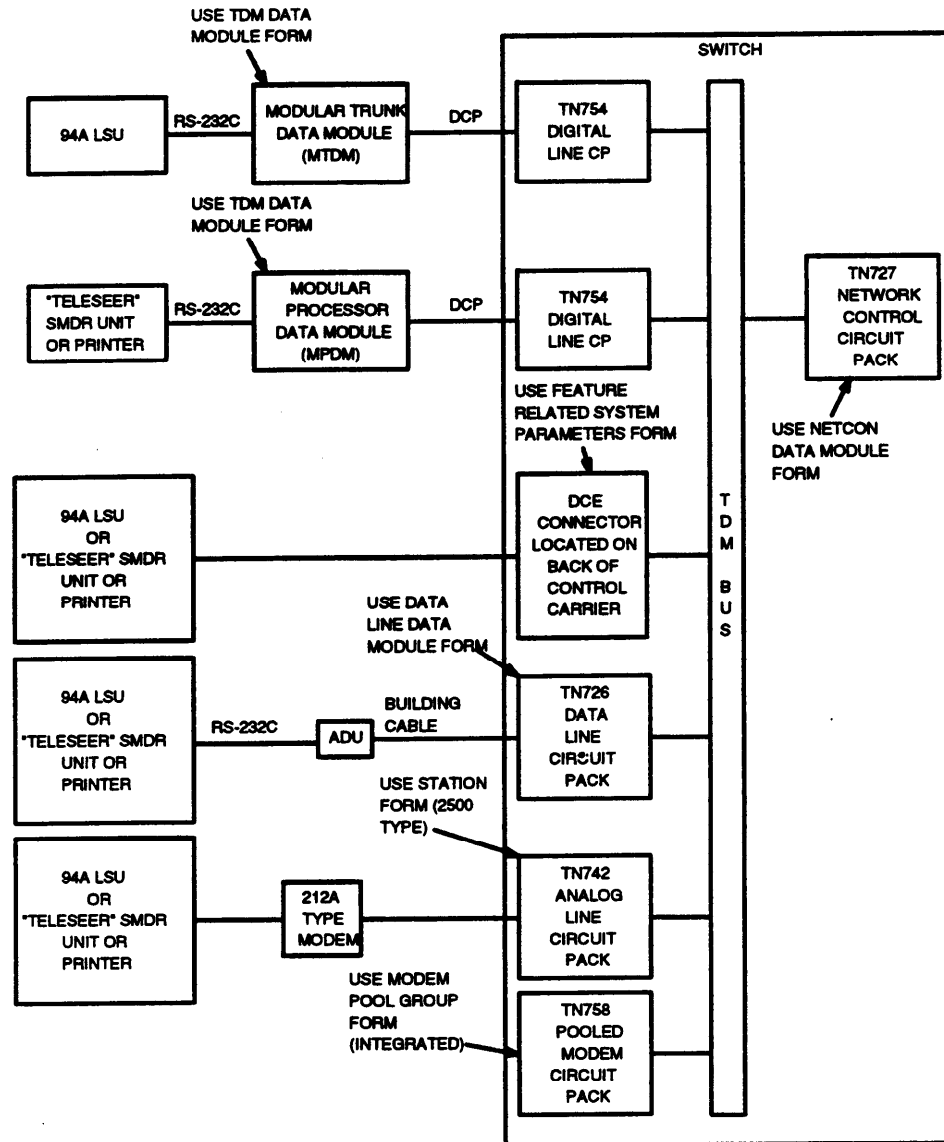


FIGURE 4-18. Typical SMDR Connections

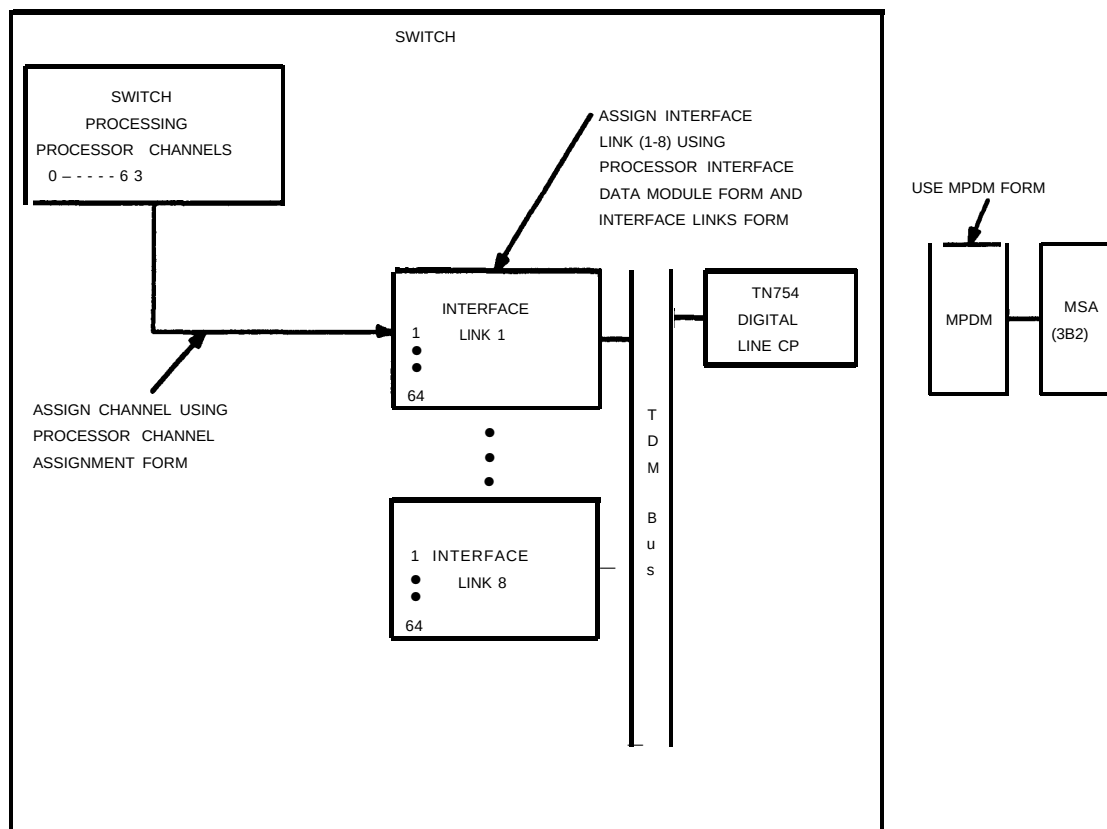


FIGURE 4-19. Typical SMDR Connections to a 3B2 Message Server Adjunct

SMDR Privacy

Allows digits in the called number field of an outgoing call to be blanked, on a per-station basis.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Station (all)	SMDR Privacy	6-245
Feature-Related System Parameters	Privacy—Digits to Hide	6-133

Subnet Trunking

Provides modification of the dialed number so an AAR or ARS call can route over alternate trunk groups.

Administration

The Private Network Access or ARS features, as appropriate, must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Routing Patterns	No. Del. Digits Inserted Digits	5-29
Feature-Related System Parameters	Off Premises Tone Detect Timeout Interval	6-133

- Routing Patterns Form—Specify the number of digits to delete. Special characters, if any, are included in the inserted digits string.
- Feature-Related System Parameters Form—Specify the number of seconds (5 to 25) that a call progress tone receiver will wait to detect a call progress tone from off-premises during dialing.

Hardware Requirements

None.

Tandem Trunk Group

A Tandem Trunk Group provides the System with the ability to communicate with another tandem PBX switch. This trunk group will send and receive Traveling Class Marks (TCMs) as well as outpulse 7-digit RNX-XXXX dialing.

Note: An ISDN-PRI trunk group whose Service Type field is "tandem" can also function as a tandem trunk group.

Administration

To assign a Tandem Trunk Group, the following form must be completed.

Form	Field	Form Instructions (Page #)
Tandem Trunk Group	All	5-232

Hardware Requirements

A port is required on a TN722B, TN760C, or TN767 circuit pack for each trunk to be assigned in the Access Trunk Group. A TN760B provides four ports. A TN722B or TN767 provides 24 ports.

Terminating Extension Group

Allows an incoming call to ring (either audible or silent alerting) as many as four voice terminals at one time (cannot be a VDN extension). Any user in the group can answer the call.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Terminating Extension Group Station (multi-appearance)	All	6-214
	ButtonFeature Button Assignments -term-x-gr (Grp:_) -exclusion -send-term (Grp:_) -aut-msg-wt (Ext:_) Bridged Call Alerting	6-245

- TEG Form—Complete all fields.
- Station Forms—Assign Term Grp, Exclusion, Send Term, and LWC Remote Message Waiting (aut-msg-wt) buttons to voice terminals as required. Enter either "y" or "n" in the Bridged Call Alerting field to enable or disable the audible signal on a bridged call appearance.

Hardware Requirements

None.

Tie Trunk Group

Provides the System with the ability to communicate with another PBX over dedicated private trunks. This trunk group can also be used to connect to a 4ESS switch to support Megacom service, Megacom 800 service, OR Megacom 800 DNIS services.

Note: An ISDN-PRI trunk group whose Service Type field is "tie" can also function as a tie trunk group.

Administration

To assign a Tie Trunk Group, the following form must be completed.

Form	Field	Form Instructions (Page #)
Tie Trunk Group	All	5-247

Hardware Requirements

A port is required on a TN722B, TN760B, or TN767 circuit pack for each trunk to be assigned in the Trunk Group. A TN760B provides four ports. A TN722B or TN767 provides 24 ports.

Time of Day Routing

Provides the most economic routing of ARS and AAR calls, based on the time of day that a call is made. Up to eight TOD Routing plans can be administered in the System.

Administration

The optional TOD and ARS Partitioning features must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

To assign a Tie Trunk Group, the following form must be completed.

Form	Field	Form Instructions (Page #)
Time of Day Routing	All	5-34
ARS Analysis	All	5-15
AAR Analysis	All	5-40
Class of Restriction	Time of Day Plan Number	6-72
Station (multi-appearance) (7400D series equipped with a display)	Button/Feature Button Assignments -man-overid -clk-overid	6-245
Attendant Console	Feature Button Assignments -man-overid -clk-overid	6-32

- TOD Routing Form—Complete up to eight TOD Routing forms as required
- ARS Analysis Form—Complete an ARS Analysis form for each PGN as required.
- AAR Analysis Form—Complete an AAR Analysis form for each PGN as required.
- COR Form—Complete the TOD Plan Number (one through eight) field on each COR form as required.
- Station Form—Assign Immediate Manual Override (man-overid) and Clocked Manual Override (clk-overid) feature buttons to 7400D series voice terminals equipped with a display.
- Attendant Console Form—Assign Immediate Manual Override (man-overid) and Clocked Manual Override (clk-overid) feature buttons as required.

Hardware Requirements

None.

Timed Reminder

Automatically alerts the attendant after a predetermined time for the following types of calls

- Extended calls waiting to be answered or waiting to be connected to a busy single-line voice terminal
- One-party incoming calls placed on hold on the console
- Incoming calls answered by a voice terminal user, but which are unanswered after being transferred.

The Timed Reminder feature is not available for calls placed, transferred, or extended to a VDN extension.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Console Parameters	Timed Reminder On Hold Return Call Timeout	6-79

- Console Parameters Form-Complete Timed Reminder on Hold and Return Call Timeout field.

Hardware Requirements

None.

Trunk Flash

Enables PBX stations to access customized services provided by a far end (for example, CO). To use this feature, the following conditions must be met:

- The trunk group must be enabled for the Trunk Flash feature. Generic 1.1 supports the Trunk Flash signal for incoming, outgoing, or two-way call directions on selected 2-wire analog (ground-start or loop-start) or digital (DS1) trunks. The trunk group types may be "co," "fx," and/or "wats."

Note: The Trunk Flash feature is not available on PCOL.

- The Trunk Flash (Flash) button on selected multifunction voice terminals (stations) must be administered.

Note: The Trunk Flash (Flash) button is not available on analog voice terminals or attendant consoles.

- At the time the Trunk Flash (flash) button is pressed, the call can only involve one trunk line. This trunk line must have been administered with the Trunk flash feature.

Note: If the trunk is not directly connected to the far end/CO providing the customized services, use of the Trunk Flash signal may cause the call to be disconnected by the far end/CO.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field(s)	Form Instructions (Page #)
Station (MET* Sets)	All	
10 Button		6-252
20 Button		6-252
30 Button		6-252
Station (multi-appearance**)	All	
7303S		6-279
7305S		6-279
7309H		6-279
7401 D		6-287
7403D		6-287
7404D		6-287
7405D		6-299
7406D		6-314
7407D		6-314
7434D		6-335

Form	Field(s)	Form Instructions (Page #)
Station (multi-appearance)		
"Callmaster" Terminal (602A1)		6-348
7505D		6-396
7506D		6-396
7507D		6-396
8503T		6-396
Station (Terminals)		
515 BCT		6-270
Trunk Group		
CO	All	5-92
FX	All	5-180
WATS	All	5-264

● MET = Multi-Button Electronic Telephone

- Station Form—Administer a station form for each one of the above voice terminals to be assigned. Assign a Trunk Flash feature button (Flash) to each terminal.
- Trunk Group Form—For CO, FX, and/or WATS trunk groups, the "Trunk Flash?" field must be administered on the appropriate Trunk Group form(s).

Hardware Requirements

None.

Trunk Group Busy/Warning Indicators to Attendant

Provides the attendant with a visual indication that the number of busy trunks in a group has reached an administered level. A visual indication is also provided when all trunks in a group are busy.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Direct Trunk Group Select Buttons	6-32
Trunk Groups:	Busy Threshold	
Access		5-98
APLT		5-112
CO		5-123
CPE		5-137
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264

- Attendant Console Form—Trunk group must be assigned to one of the first six Direct Trunk Group Button Assignments for a Basic Attendant Console (301A) or up to 12 button assignments for an Enhanced Attendant Console (302A).
- Trunk Group Forms—Assign Busy Threshold (Warning) field.

Note: Refer to the Attendant Direct Trunk Group Selection feature description for additional information.

Hardware Requirements

None.

Trunk Identification by Attendant

Allows an attendant or display-equipped voice terminal user to identify a specific trunk being used on a call. This capability is provided by assigning a Trunk ID button to the attendant console or voice terminal.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Attendant Console	Feature Button Assignments -trk-id	6-32
7400D Series Voice Terminals	Button/Feature button Assignments -trk-id	6-287

- Attendant Console Form—Assign a Trunk ID button.
- Station Forms—Assign a Trunk ID feature button to stations equipped with a display or have an associated data terminal providing voice terminal displays.

Hardware Requirements

None.

Trunk Groups

Up to a maximum of 99 trunk groups can be assigned in the System. Each trunk group can have up to 99 trunks. The maximum number of trunks that can be assigned in the System is 400.

The following trunk groups can be assigned:

- Access
- APTL (EPCS or CCSA access)
- CO
- Customer Provided Equipment
- Digital Multiplexed Interface—BOS
- DID
- FX
- ISDN-PRI
- PCOL
- Release Link
- Tandem
- Tie (Analog or DS1)
- WATS or 800 Service

Each trunk group type is covered separately in this chapter. Refer to the specific trunk group coverage for additional information.

Trunk-to-Trunk Transfer

Allows the attendant or voice terminal user to connect an incoming trunk call to an outgoing trunk.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature-Related System Parameters	Trunk-to-Trunk Transfer	6-133

- Feature-Related System Parameters Form—Complete Trunk-to-Trunk Transfer field.

Hardware Requirements

None.

Uniform Call Distribution

Provides direct access to a group of voice terminals, data modules, data line circuit ports, or modems by either lines or trunks. Access to a group of like resources, such as modems, is through a single group extension number, which minimizes the dialing of a busy resource. Calls are handled on a "most idle" basis for the hunt group number.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Recorded Announcements	As Required	6-198
Recorded Announcement Data Module	All	6-115
Call Coverage Paths	All	6-55
Hunt Groups	All	6-160
Trunk Groups:	Incoming Destination Night Service	
Access		5-98
APLT		5-112
CO		5-123
DMI-BOS		5-144
FX		5-180
ISDN-PRI		5-195
RLT		5-221
Tandem		5-232
Tie		5-247
WATS		5-264

- Recorded Announcements Form—Assign recorded announcement extension numbers, if used.
- Recorded Announcement Data Module Form—Complete all fields.
- Call Coverage Paths Form—Verify or assign Call Coverage Path for the group, if used.
- Hunt Groups Form—Complete all fields.
- Trunk Group Forms—If this feature is to be provided via DID, the assigned hunt group extension number must be accessible via DID. Enter the extension number assigned to the hunt group in the trunk group Incoming Destination and/or Night Service fields.

Hardware Requirements

Requires one port on a TN742, TN746B, or TN769 Analog Line circuit pack for each Auxiliary Queue Warning lamp. A 21C-49 indicator lamp may be used as a warning lamp. This lamp is approximately two inches in diameter and has a clear beehive lens. The lamp operates on ringing voltage and can be mounted in any convenient location.

Each delay announcement requires announcement equipment and a port on a TN742, TN746B, or TN769 Analog Line circuit pack. If music is to be provided after the delay announcement, a music source and a port on the TN763C Auxiliary Trunk circuit pack is also required. The announcement and music equipment are not provided as part of the System equipment. Refer to the Recorded Announcements and Trunk Groups features for additional administration and hardware requirements.

Uniform Dial Plan

Provides a common 4- or 5-digit dial plan that can be shared among a group of switches. Inter-switch dialing and intra-switch dialing are both via 4- or 5-digit dialing. The Uniform Dial Plan (UDP) is used with Electronic Tandem Networks, Main/Satellite/Tributary and DCS configurations. Additionally, UDP can be used alone to provide uniform 4- or 5-digit dialing between two or more private switching systems without Main/Satellite/Tributary or DCS configurations.

Administration

The optional UDP feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

Note that UDP calls cannot "crossover" to ARS by assigning "ars" as the Call Type on the AAR Analysis form (Chapter 5). A UDP call must be routed using AAR facilities only.

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Dial Plan	All	6-117
AAR Analysis	All	5-40
Routing Patterns	All (AAR & ARS)	5-29

- Dial Plan Form—Assign a "y" in the UDP field. Specify four or five digits. Also, complete pages containing PBX codes.
- AAR Analysis—Complete appropriate fields as described under AAR.
- Routing Patterns Form—Complete appropriate fields as described under MR.

Hardware Requirements

None.

Voice Message Retrieval

Allows attendants, voice terminal users, and remote access users to retrieve LWC and Call Coverage messages in the form of a voice output.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
Feature Access Codes	LWC Message Retrieval Lock LWC Message Retrieval Unlock Voice Coverage Message Retrieval Access Code Voice Principal Message Retrieval Access Code	6-127
Feature-Related System Parameters	Stations With System-Wide Retrieval Permission	6-133
Station	Security Code	6-245

- Feature Access Codes Form—Assign LWC Message Retrieval Lock/Unlock codes. Assign Voice Coverage/Principal Message Retrieval Access Codes.
- Feature-Related System Parameters Form—Complete Stations With System-wide Retrieval Permission field.
- Station Forms—Complete the Security Code field for each voice terminal.

Hardware Requirements

Requires a TN725 Speech Synthesizer circuit pack. No additional software is required.

Voice Terminal Display

Provides multi-appearance voice terminal users with updated call and message information. This information is displayed on a display-equipped terminal. The information displayed depends upon the display mode selected by the user.

Administration

To implement this feature, the following form(s) or sections of the form(s) must be completed.

Form	Field	Form Instructions (Page #)
7400D Series Voice Terminal	Data Module Display	6-287

- Station Form for 7400D Series Voice Terminals—Complete the Data Module and Display Module fields. Complete all fields of the associated Data Module and Display Module forms. One "Normal" button must be assigned on the Display Module form or as a feature button.

The display buttons may also be administered as voice terminal feature buttons if required.

Hardware Requirements

A port on a TN754B Digital Line circuit pack must be assigned to the 74000 series voice terminal before this feature can be implemented. The voice terminal must have a built-in display, a digital display module, or obtain the display via an associated data terminal. All digital voice terminals (includes 7400D series and Callmaster digital voice terminal) can be provided an interface to a data terminal via 7400B Data Module. The 7403D and 7405D sets can interface a data terminal via an optional DTDM, the 7404D requires an optional Messaging Cartridge, and the 7406D requires an optional 703A Data Stand.

Wide Area Telecommunications Service (WATS) Trunk Group

A WATS Trunk Group provides for trunk connections between the System and a WATS (or 800 Service) office.

Administration

To assign a WATS Trunk Group, the following form must be completed.

Form	Field	Form Instructions (Page #)
WATS Trunk Group	All	5-264

- WATS Trunk Group Form—Complete all fields as required.

Hardware Requirements

A port on a TN747B CO Trunk or TN767 DS1 Interface circuit pack is required for each WATS trunk to be assigned. A TN747 provides eight ports and a TN767 provides 24 ports.

Voice Terminals

The following provide administrative guidelines for the System's voice terminals. Refer to the referenced forms for specific instructions associated with a voice terminal type.

Administration

To administer Voice Terminals, the following forms must be completed.

Form	Field	Form Instructions (Page #)
Station—10-, 20-, or 30-MET Voice Terminal	All	6-252
Station—500 Voice Terminal	All	6-260
Station—510D Personal Terminal	All	6-268
Station—515 BCT	All	6-268
Station—2500 Voice Terminal	All	6-260
Station—7101A Voice Terminal	All	6-260
Station—7102A Voice Terminal	All	6-260
Station—7103A Voice Terminal	All	6-260
Station—7104A Voice Terminal	All	6-260
Station—7303S	All	6-279
Station—7305S	All	6-279
Station—7309H Voice Terminal	All	6-279
Station—7401D Voice Terminal	All	6-287
Station—7403D Voice Terminal	All	6-287
Station—7404D Voice Terminal	All	6-287
Station—7405D Voice Terminal	All	6-299
Station—7406D Voice Terminal	All	6-314
Station—7407D Voice Terminal	All	6-314
Station—7410D Voice Terminal	All	6-328
Station—7434D Voice Terminal	All	6-335
Station—7505D Voice Terminal	All	6-396
Station—7506D Voice Terminal	All	6-396
Station—7507D Voice Terminal	All	6-396
Station—8503T Voice Terminal	All	6-396
Station—602A1 Callmaster Digital Voice Terminal	All	6-348

Hardware Requirements**MET Sets (10-, 20-, 30-MET)**

A port in a TN735 circuit pack is required for each 10-, 20-, or 30- Multi-Button Electronic Telephone (MET) to be assigned. A TN735 provides four ports. Analog Voice Terminals (500, 2500, 7101A, 7102A, 7103A, 7104A)

A port is required on a TN742, TN746B, or TN769 Analog Line circuit pack, or a TN767 DS1 Tie Trunk for each analog Voice Terminal to be assigned. A TN742 and TN769 provides eight ports. The TN746B provides 16 ports for in-building use only. A TN767 provides 24 ports.

Hybrid Voice Terminals (7303S, 7305S, 7309H)

A port is required in a TN762 Hybrid Line circuit pack for each hybrid voice terminal to be assigned. A TN762 provides eight ports.

Digital Voice Terminals [7401D, 7403D, 7404D, 7405D, 7406D, 7407D, 7410D, 7434D, 602A1, 7505D (BRI), 7506D (BRI), 7506D (BRI), 7507D (BRI), and 8503T (BRI)]

A port is required on a TN754 Digital Line circuit pack for each 7401D, 7403D, 7404D, 7405D, 7406D, 7407D, 7410D, 7434D, and 603A1 digital voice terminal to be assigned. In the case of the 7505D, 7506D, 7507D, and 8503T BRI voice terminals (digital, but non-DCP), a port is required on a TN556 ISDN BRI Line circuit pack. The TN556 ISDN BRI Line circuit pack provides 12 ports. When administered in multipoint (passive bus) configuration, a port may be shared by two endpoints. Each endpoint may be a voice-only or stand-alone data endpoint. For BRI applications, a TN778 Packet Control circuit pack is also required to provide ISDN BRI connectivity. The Packet Control circuit pack provides ISDN signaling links with Link Access Protocol 001 for the D-Channel.

510D Personal Terminal and 515 Business Communications Terminal (BCT)

A port is required on a TN754 Digital Line circuit pack for each 510D or 515 BCT to be assigned. A TN754 provides eight ports.

Personal Computer (PC)—MS-DOS PC/PBX Connection

Provides an integrated voice and data workstation interface from the System to an AT&T PC MS-DOS or other compatible computer. The connection provides access to a variety of host computers, allowing the PC to act as a terminal for the host.

Figure 4-20 shows atypical 7400D series voice terminal PC/PBX workstation connection and Figure 4-21 shows a typical 7404D voice terminal (equipped with Message Cartridge) PC/PBX workstation connection.

Administration

To administer a PC/PBX connection, the following forms must be completed.

Form	Field	Form Instructions (Page #)
PC/PBX Connection	All	6-356

Hardware Requirements

A port is required on a TN754 Digital Line circuit pack for each PC/PBX connection to be installed. A TN754 provides eight ports.

Software Requirements

One of the following PC/PBX software packages must be installed on the PC, as appropriate:

● PC/PBX Connection Package 1

Provides features such as keyboard dialing, personal phone directory, directory dialing, and message retrieval. Hardware requirements include: PC, 7404D voice terminal equipped with a Message Cartridge.

● PC/PBX Connection Package 3

Provides Package 1 services plus additional features (such as call log, higher file transfer rates, and the ability to take notes on a call). Hardware requirements include: PC equipped with a DCP card and a 7400D series voice terminal. Package 3 provides an integrated voice and data workstation that supports:

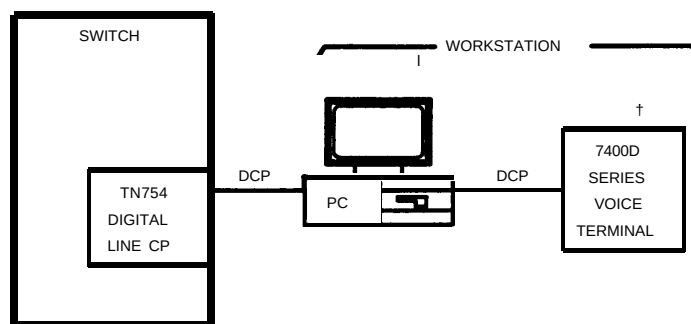
- Dialing calls from the PC
- Use of customized phone features from the PC keyboard
- Creating a personal phone directory in the PC, searching the directory, and dialing voice and data calls from the directory
- Reading phone messages on the PC screen and having the PC automatically dial calls to users that have left messages
- Logging all incoming and outgoing calls (voice and data) and the ability to automatically recall them
- Using an associated speakerphone to make "hands-free" calls

- Use of a security feature so as to keep directory and message information private
- Use of the PC as a terminal connected to a variety of host computers
- Transferring files between the PC and another PC or host computer
- Setting up "script programs" to have the System perform selected data functions automatically
- Using voice and data functions simultaneously. Lets you perform PC application while running the PC/PBX Connection software application in the background.

● PC/PBX Connection Package 5

Package 5 is a terminal emulation package that allows the PC to emulate a 3278/3279 terminal. This is a software enhancement to Package 3 and works with Package 3 hardware and software.

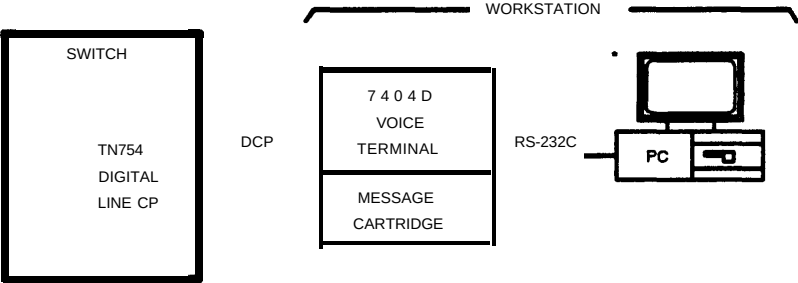
For additional PC/PBX user information, refer to *AT&T PC/PBX Connection Package 3 User's Guide*, 555-016-703. A complete set of documents is available as *AT&T PC/PBX Connection Release 3 Documentation Set*, 555-016-715.



* PC MUST BE EQUIPPED WITH DCP CARD AND APPROPRIATE PC/PBX SOFTWARE.

† 7401D, 7403D, 7404D (WITH OUT MESSAGE CARTRIDGE), 7405D, 7406D, OR 7407D VOICE TERMINAL.

FIGURE 4-20. Typical 7400D Series Voice Terminal PC/PBX Connections



• PC MUST BE EQUIPPED WITH APPROPRIATE PC/PBX SOFTWARE.

FIGURE 4-21. Typical 7404D PC/PBX Connection

CHAPTER 5. FORMS FOR NETWORK FEATURES AND SERVICES

Overview

This chapter contains System forms and associated instructions required to implement the following network-type features and services.

- Automatic Route Selection (ARS)
- Automatic Alternate Routing (AAR)
- Centralized Attendant Service (CAS)
- Distributed Communications System (DCS)
- DS1 Trunk Service
- Integrated Services Digital Network (ISDN)—Primary Rate Interface (PRI)
- Trunk Groups.

In addition, administration commands required to access the forms is provided along with each form's coverage. In some cases, just the most commonly used commands are given. Chapter 3 provides a complete listing of the System's administration commands and describes the "make-up" of the command line. Specifically, the "action," "object," and "qualifier" command words are described in detail.

The forms included in this chapter are those forms that are primarily dedicated to networking and do not include multi-use forms that support other functional areas such as voice or data management. All other forms required to implement the System, including those multi-use forms (for example Dial Plan, Feature Access Codes) that support networking and voice and data management, are included in "Chapter 6. Forms for System Features and Services."

Refer to "Chapter 4. System Features, Functions, and Services" for a complete listing of all forms and/or related fields on forms that must be completed or considered when implementing the above network-type features and services.

Blank forms are provided in the Blank Forms Package and may be reproduced as required. The copies are used as worksheets when using this manual to assign features and services. The completed hard-copy forms are later used with administration commands provided in Chapter 3 to implement the System. The forms should then be retained as part of the System's hard-copy records.

Automatic Route Selection

This section contains the network-type forms and associated instructions dedicated primarily to implementing the Automatic Route Selection (ARS) feature.

ARS routes calls over the public network based on the preferred route (normally based on a customer-specified order and typically the least expensive) available at the time the call is placed. ARS provides a choice of up to six routes for any given public network call. The following types of trunk groups can be accessed by ARS:

- **Foreign exchange**— Used to emulate local calling in an area not served by the local central office.
- **Local central office**— Used for local calls and to provide access to long-distance carriers. Access to the long-distance carrier can be provided automatically by the central office or by a carrier access code.
- **Integrated Services Digital Network (ISDN)**— Primary Rate Interface (PRI)—Used for calls over an ISDN and provides users access to a variety of switched nodal services such as Megacom telecommunications service, INWATS, and ACCUNET digital service and allows access to other interexchange carriers.
- **Tie trunks**— Used to provide access to an Electronic Tandem Network (ETN), or to an Enhanced Private Switched Communications Service (EPSCS) or Common Control Switching Arrangement (CCSA) office.
- **Wide Area Telecommunications Service (WATS)**— Used to provide calling to predefined geographic areas at a rate based on expected usage.

For the the following discussion:

- Area Code = NPA = NIX (where N = 2-9, I = 0 or 1, X = 0 through 9)
- Central Office (CO) Code = NXX (where N = 2-9, X = 0 through 9) or NIX (see Area Code)
- Foreign Number Plan Area (FNPA) Code—see Area Code
- Home Number Plan Area (HNPA) Code—see Area Code
- Partitioned Group Number (PGN) = 1 through 8
- Service Codes = X11 (where X = 0 through 9).

Note that the method used to administer ARS in the previous release of the DEFINITY Generic 1 System has been changed with this release. The ARS HNPA and FNPA Tables and Ten-Digit to Seven-Digit Conversion forms that were previously used have been replaced with two new forms (ARS Analysis and ARS Digit Conversion). Previous assumptions about domestic numbering plan format and length have been removed, providing the following:

- A more flexible accommodation of future changes to the NANP by administration changes rather than software changes.
- Now able to handle NXX area codes (planned to be introduced in 1995). Currently, there are 180 area codes in the form NIX.
- Increased ability to analyze and route international calls.

- A wild card capability on the forms that allows, for example, routing by exchange, across all area codes (for example, XXX976).

Refer to "Automatic Route Selection" in Chapter 4 for a complete listing of all System forms and/or fields on forms that must be completed or considered when implementing ARS. Forms such as the Dial Plan, COR, Feature Access Codes, and Feature-Related System Parameters that support both networking and other functional areas such as voice management and, data management may also require implementation.

ARS also supports the following features:

- **Automatic Alternate Routing**— Provides automatic muting of ETN calls over private or public network facilities.
- **Call by Call Service Selection**— Allows users to gain access to a variety of switched nodal services such as Megacom service, WATS, ACCUNET digital service, and various inter-exchange carriers.
- **Generalized Route Selection**— Provides separate routes for voice and data calls. Also provides for the integration of voice and data over the same trunking facilities, when required.

ARS Forms

The following ARS forms are included in this section:

Note: The ARS option must be enabled on the System-Parameters Customer-Options form before the ARS forms can be administered.

- ARS Analysis
- ARS Digit Conversion
- RHNPA
- ARS Toll Table
- Routing Patterns
- TOD Routing.

The following provides an overview of the System's ARS forms and their purpose. A description of the forms and how software uses their associated data entries to process a call is described. In addition, dialing patterns such as operator dialed calls, prefix 1 DDD calls, special service calls, international calls, and inter-exchange carrier calls are described.

Figure 5-1 is a high-level presentation on the use of the various System forms in the processing of ARS and ARS calls. AAR call processing is included here because of the interrelationship that exists between the two features when both have been activated in a System. If your System does not have Private Networking (AAR) optioned for, disregard all call processing functionality using AAR as shown on the flow diagram.

The forms are shown in the general order that software accesses them when processing a call. Actual software processing may differ in some cases. The flow diagram does not show all software processes and decision making routines that occur. It is intended only to show the use of the forms and their various parameters in call processing.

The flow chart assumes that the associated optional features have been enabled on the System-Parameters Customer-Options form. For those features not enabled, consider the flow as through the associated form(s) and through any decision making blocks that occur as a result of using the form. The optional features include:

- ARS
- Private Networking (AAR)
- ARS/AAR Partitioning
- TOD Routing
- ARS/AAR Digit Conversion.

Immediately following the flow diagram is a summary of each of the forms (Figure 5-2) and the parameters that may be administered on the forms. Use this summary as a "quick reference" when you need an overview of just what is on each form.

Following this introduction are detailed instructions for completing each form.

As shown on Figure 5-1, an ARS call begins with the dialing of an ARS access code (typically nine). If the facility (for example, voice terminal) is Origination or Outward restricted or the user (by COR assignment to the facility) is Controlled Outward or Total Restricted, intercept treatment is provided as shown on the figure. Second Dial Tone is provided to the calling party if AAR/ARS Dial Tone is optioned for on the Feature-Related System Parameters form. The caller then dials a "1" (if "ARS Prefix 1 required?" is administered on the System's Dial Plan form), if the call is a 10-digit FNPA call or dials one of a variety of dialing patterns including 7-digit numbers, 10-digit DDD numbers, International Direct Distance Dialing (IDDD) numbers, service codes, Customer-Dialed Operator-Serviced (CDOS) numbers, and IXC numbers.

The dialed digits are compared to numbers entered in Matching Pattern fields on the ARS Digit Conversion form. If a match occurs, a new number from the Replace field on the form is used to route the call by AAR over the private network. Certain dialed digit strings may be routed (via their replacement strings) to the attendant, an announcement, or intercept if required. If no match is found, the dialed string is compared with digit string entries on the System's Toll Analysis form for a relationship with the System's Toll List, RCL, or UCL (see Toll Analysis form in Chapter 6). Calls that are not allowed to complete are given intercept treatment. If the call is allowed, call processing continues based on how the ARS Partitioning and Time of Day Routing (TDR) options are administered on the System-Parameters Customer-Options form as follows:

- ARS Partitioning Enabled and TDR Not Enabled:

The PGN of the calling party (1 through 8, administered via COR assignment to station) is used to make the choice of an ARS Analysis form with a PGN of the same number (1 through 8).

● ARS Partitioning Enabled and TDR Enabled:

The TOD Plan Number of the calling party (1 through 8, administered via COR assignment to station) is used to make the choice of a TOD Routing form of the same number (1 through 8). On the form, a Plan Number (1 through 8) is identified based on the day and time of day. This Plan Number is used to select an ARS Analysis form with a PGN of the same number (1 through 8).

ARS Partitioning and TDR Not Enabled:

The ARS Analysis form (only one form in the System when ARS Partitioning and TDR not enabled) is accessed for continued call processing. The PGN displayed will be a "1."

The ARS Analysis form is used to map dialed strings to routing patterns. Each dialed string entry on the form is associated with a routing pattern and a call type (for example, HNPA, FNPA, operator, service, etc.). Table 5-A (see ARS Analysis Table Coverage) provides default translations for typical dialing strings. Operator, Inter-Exchange Carrier, 7-digit (digits 2 through 9 with a total of 7 digits min/max) are initially defaulted to routing pattern one. If, for certain dialed digit strings, RHNPA translations are required, an appropriate entry of "r1" through "r32" is entered in the Routing Pattern field on the ARS Analysis Table form. The RHNPA form is used for translating 3-digit codes in the range 000 through 999. The table is used typically for the DDD of central office codes in a nonlocal NPA. The first three digits of a nonlocal FNPA are translated on the ARS Analysis Table form and, where appropriate, the form points to a RHNPA table (1 through 32) where further translations occur.

If the ARS Analysis table points to an RHNPA table, the next three dialed digits are compared with codes in the selected RHNPA table. Each code on the table may have an administered reference to a routing pattern number (1 through 254).

The Routing Pattern form is used to route a call over one of six possible trunk groups. Up to 254 Routing Patterns may be assigned in the System. Based on entries on the form, up to 18 leading digits may be deleted from the dialed number and up to 36 (after digit deletion) may be inserted. Up to 54 digits may be outputted (includes special symbols "+," "%," "#," "*", and ";"). When used, special symbols count as two digits each. An ARS Toll Table, when referenced from the routing pattern, is used to specify whether calls are toll or local type calls.

Finally, compatibility checks ensure that the calling party's FRL is greater than or equal to the routing preference's FRL, the BCC of the calling party matches the BCC specified for the routing preference if ISDN-PRI is optioned for on the System Parameters Customer Options form, and there is an unused circuit (that is, trunk port) available in the selected trunk group. When all checks are okay, digits are outputted over a selected trunk group member.

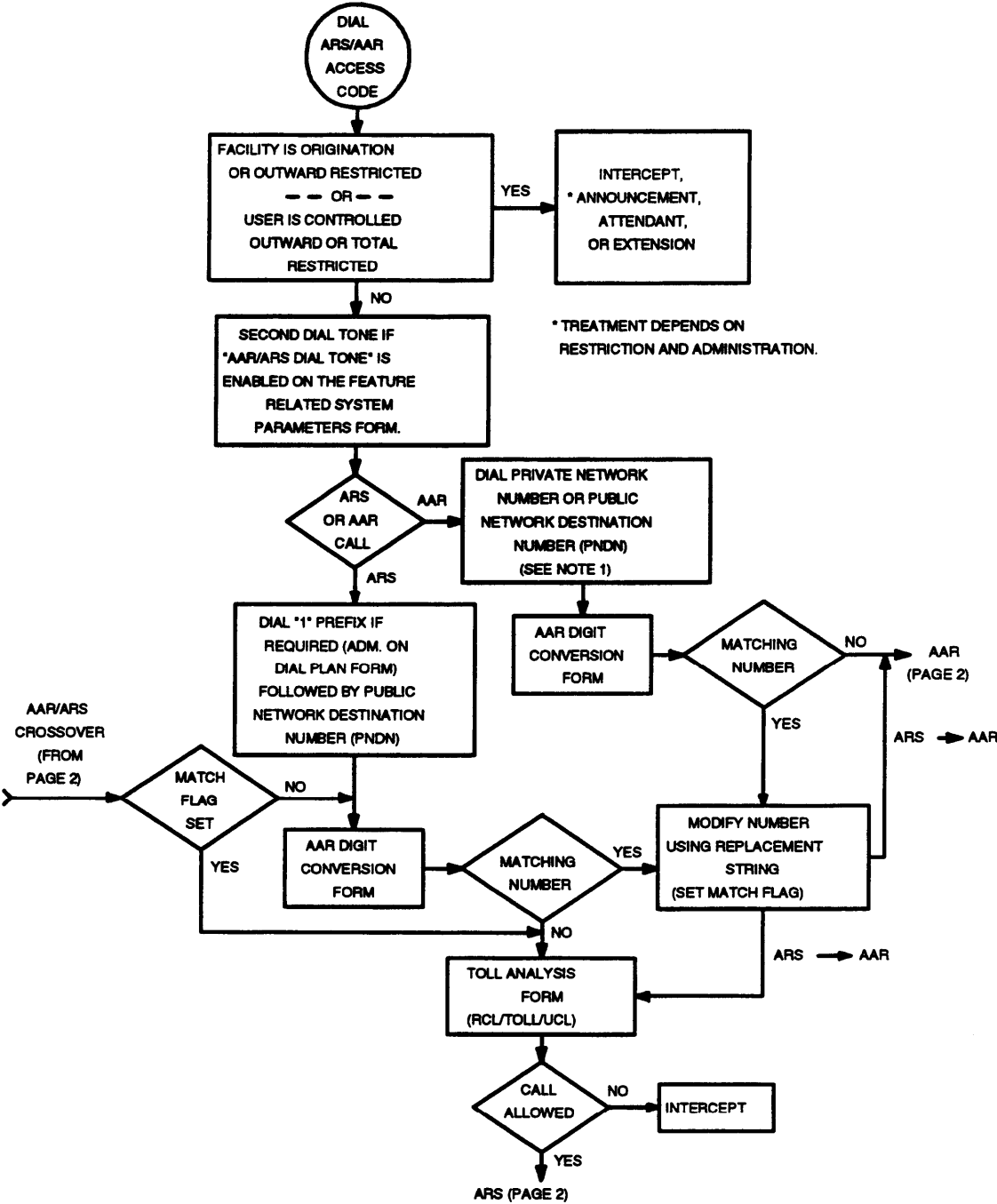


FIGURE 5-1. Automatic Route Selection Call Processing—Flow Diagram (Sheet 1 of 3)

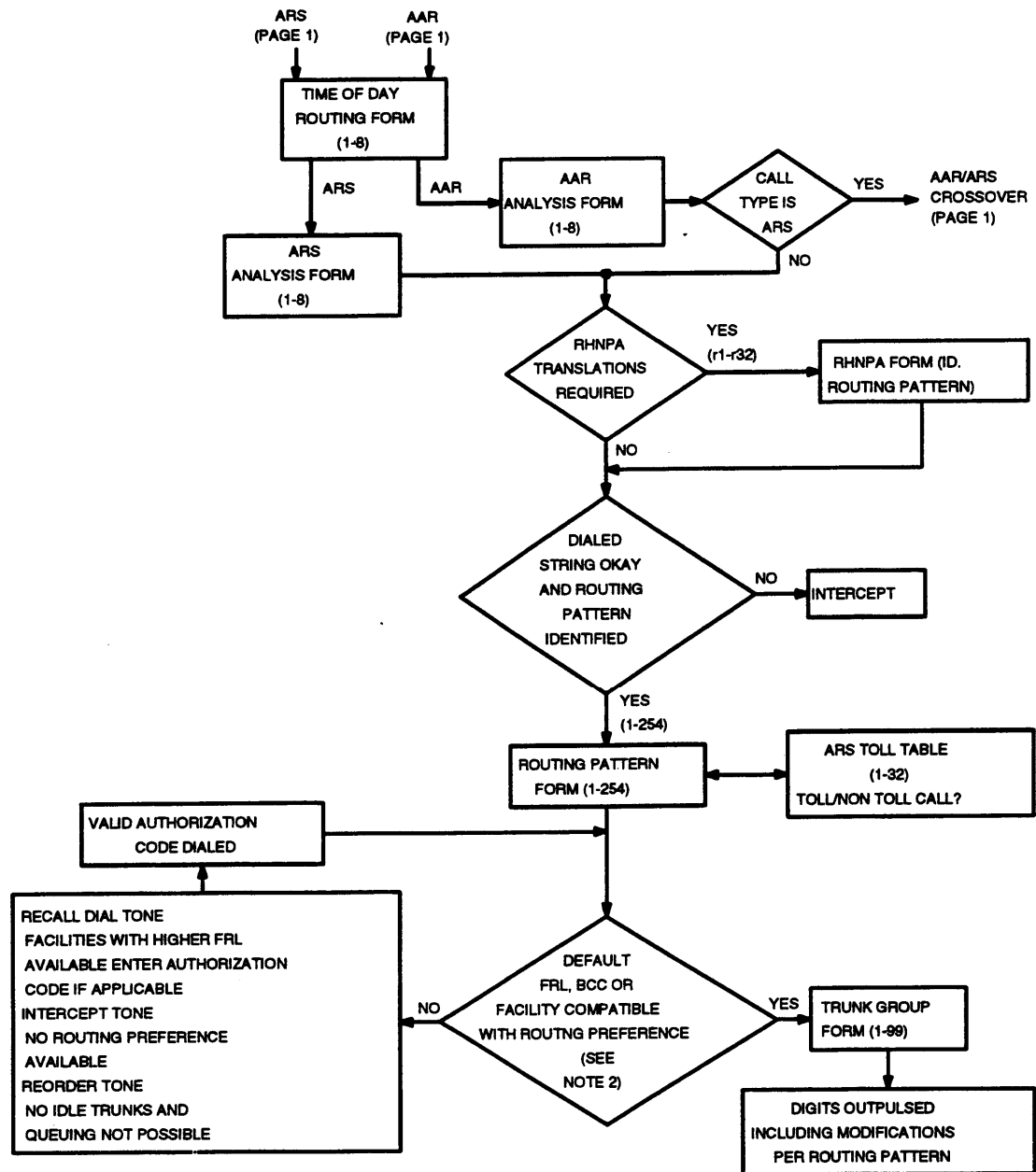


FIGURE 5-1. (Contd) Automatic Route Selection Call Processing—Flow Diagram (Sheet 2 of 3)

NOTES:

1. IT IS RECOMMENDED THAT PNDNs THAT ARE DIALED AFTER AN AAR ACCESS CODE BE ADMINISTERED TO HAVE A "1" PREFIX. A DEFAULT ENTRY ON THE AAR ANALYSIS FORM WILL CAUSE THESE CALLS TO "CROSSOVER" TO ARS.
2. LOCAL USER IS A SUBTENDING PBX - DEFAULT FRL IS THE FRL ASSIGNED TO THE INCOMING ACCESS TRUNK GROUP.

ATTENDANT EXTENDED CALL - DEFAULT FRL IS THE FRL ASSIGNED THE ATTENDANT GROUP, NOT THE FRL ASSIGNED THE USER'S STATION OR FACILITY

REMOTE ACCESS USER - DEFAULT FRL IS THE FRL ASSOCIATED WITH AN AUTHORIZATION CODE, IF ENTERED. OTHERWISE, THE FRL ASSOCIATED WITH THE BARRIER CODE IS USED. IF NO BARRIER CODE OR AUTHORIZATION CODE IS USED, THE DEFAULT BARRIER CODE'S FRL IS USED.

LEGEND:

AAR - AUTOMATIC ROUTE SELECTION
ARS - AUTOMATIC ROUTE SELECTION
BCC - BEARER CAPABILITY CLASS
COR - CLASS OF RESTRICTION
FRL - FACILITY RESTRICTION LEVEL
PNDN - PUBLIC NETWORK DESTINATION NUMBER (I,E, DDD, IDDD, SERVICE CODE 411, 911, ETC)
RHPA - REMOTE HOME NUMBER PLAN AREA

FIGURE 5-1. (Contd) Automatic Route Selection Call Processing—Flow Diagram (Sheet 3 of 3)

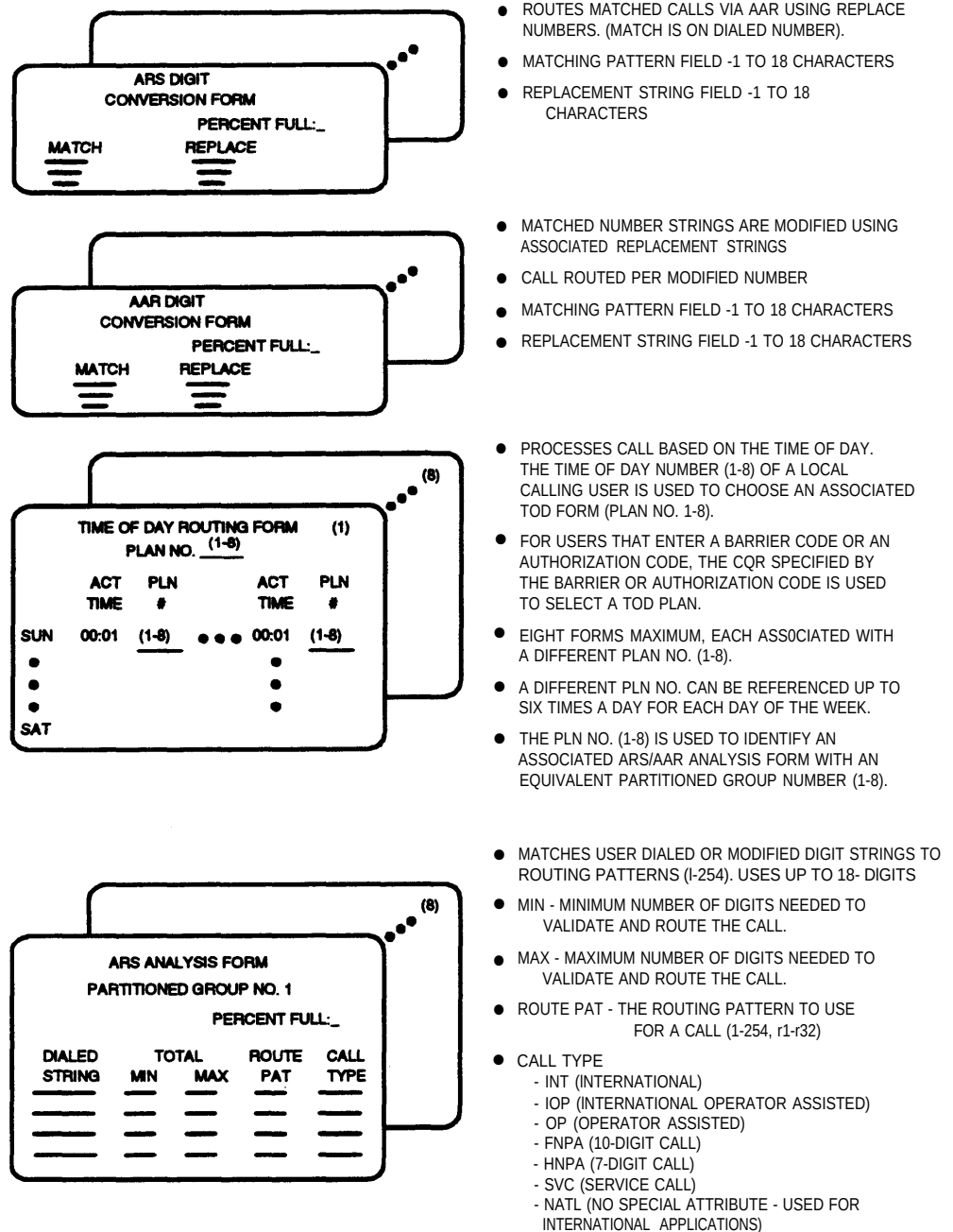


FIGURE 5-2. Automatic Route Selection/Automatic Alternate Routing—Forms Summary
(Sheet 1 of 3)

AAR ANALYSIS FORM
 PARTITIONED GROUP NUMBER: 1
 PERCENT FULL: —

DIALED STRING	MIN	MAX	ROUTE PAT	CALL TYPE
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—

- MATCHED USER DIALED OR MODIFIED DIGIT STRINGS TO ROUTING PATTERNS (1-254). USES UP TO 18 DIGITS.
- MIN MINIMUM NUMBER OF DIGITS NEEDED TO VALIDATE AND ROUTE THE CALL
- MAX MAXIMUM NUMBER OF DIGITS NEEDED TO VALIDATE AND ROUTE THE CALL.
- ROUTE PAT THE ROUTING PATTERN TO USE FOR A CALL (1-254, r1-r32).
- CALL TYPE
 - AAR (REGULAR AAR CALL)
 - ARS (CROSSOVER TO ARS CALL)
 - ATTD (ATTENDANT)
 - HAAR (CALL TO TERMINATE TO LOCAL HOME SWITCH)
 - HATD (AAR CALL TO TERMINATE LOCALLY TO ATTENDANT GROUP)

REMOTE HOME NUMBER PLAN (RHNP) FORM
 RHNP TABLE (1-32)
 CODE X00 X99 —
 PATTERN CHOICE

1: —	•	•	•	11: —
2: —				12: —
01: —				90: —
•				•
•				•
09: —				99: —

- MAY BE USED FOR DDD OF CO CODES IN AN FNPA
- INTERNATIONAL NUMBERS
- INTER-EXCHANGE CARRIER CODES
- 3-DIGIT TRANSLATIONS OF NUMBERS (000-999)
- TEN PAGES MAXIMUM PER TABLE (32 TABLES MAX.)
- UP TO 12 OF THE 254 POSSIBLE ROUTING PATTERNS CAN BE REFERENCED ON EACH TABLE.
- EACH PAGE SUPPORTS 100 CODES IN THE RANGE 000-099, 100-199, 900-999.

TOLL ANALYSIS FORM
 PERCENT FULL: —

DIALED STRING	TOTAL MIN	TOTAL MAX	TOLL RCL	SMDR LIST	FEAC	UCL 1—10
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

- USED FOR ARS AND NON-ARS SYSTEMS.
- USED TO ASSIGN DIALED NUMBERS TO THE RESTRICTED CALL LIST (RCL), UNRESTRICTED CALL LIST (UCL), SMDR FEAC, AND TOLL LIST.
- MIN MINIMUM NUMBER OF DIGITS TO COLLECT.
- MAX MAXIMUM NUMBER OF DIGITS TO COLLECT.
- RCL RESTRICTED CALL LIST. ALL ENTRIES OF "X" AND THEIR ASSOCIATED DIALED STRINGS ARE REFERRED TO AS THE SYSTEM'S RCL
- TOLL LIST ALL ENTRIES OF "X" AND THEIR ASSOCIATED DIGIT STRINGS ARE REFERRED TO AS THE SYSTEM'S TOLL LIST.
- SMDR FEAC USED TO INDICATE THAT A SMDR ACCOUNT CODE MUST BE DIALED BEFORE A CALL THAT MATCHES THE "DIALED STRING" ENTRY.
- UCL ALL ENTRIES OF "X" THAT ARE ASSOCIATED WITH A PARTICULAR UCL NUMBER AND THEIR ASSOCIATE DIGIT STRINGS ARE REFERRED TO AS THE UNRESTRICTED CALL LIST (1-10).

FIGURE 5-2. (Contd) Automatic Route Selection/Automatic Alternate Routing—Forms Summary
 (Sheet 2 of 3)

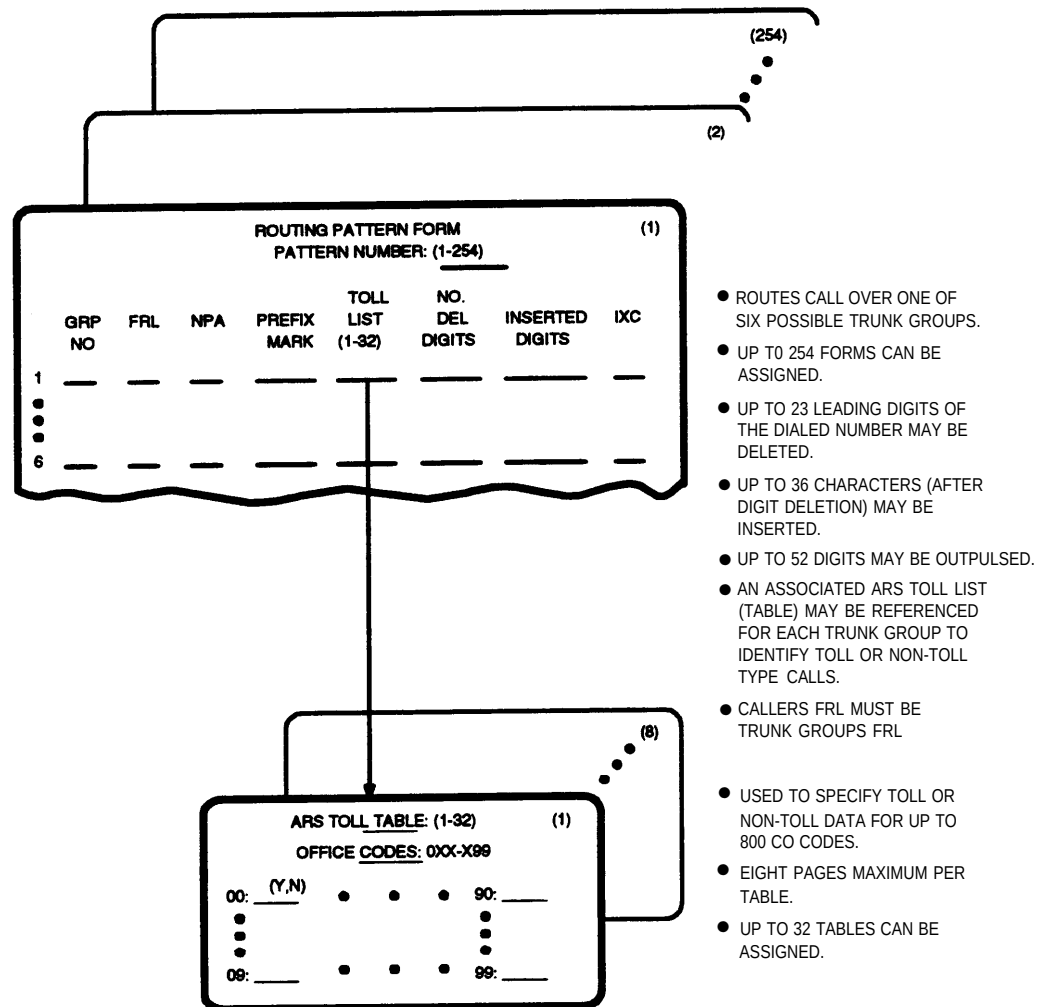


FIGURE 5-2. (Contd) Automatic Route Selection/Automatic Alternate Routing—Forms Summary
(Sheet 3 of 3)

Dialing Patterns

The System recognizes different types of dialing patterns on outgoing calls and can route the call accordingly. The following dialing patterns are supported.

Note: Refer to Table 5-A (ARS Analysis Default Translations) for default translations associated with the following.

- **Operator Assistance Calls**— The first digit following the ARS access code is a 0. If a 0 is dialed by itself to access an operator, a special interdigit time-out occurs, the route for dial 0 calls is selected and a 0# is outpulsed. If the user dials another 0, the route for 00 is selected, and a 00# is outpulsed. The call is routed to the toll operator (if one exists) instead of the local operator in this case.
- **DDD Calls with Prefix Digit 1 Required**— The Prefix Mark field (on the System's Routing Pattern form) can be administered as follows for each of the six possible routing choices on each form:

Note: Prefix Mark operations only apply to fnpa or hnpa call types.

0 Indicates that the Prefix digit 1 is never outpulsed.

1 Indicates that the Prefix digit 1 is outpulsed if **and only if** the call is a long distance FNPA call. Prefix Mark 1 should be selected for those HNPAs that require users to dial "1" to indicate a long distance FNPA call.

2 Indicates that the Prefix digit 1 is outpulsed for **all** toll calls within and outside the HNPA.

3 Indicates that the Prefix digit 1 is outpulsed for **all** toll calls. These calls are always outpulsed as 10-digit numbers, even those within the HNPA.

When a Prefix "1" is required, the first dialed digit of the long distance call following the ARS access code is a 1. Typically, dialing a "1" prefix in system's that require a "1" indicates a 10-digit call. The main purpose of the prefix digit "1" is to distinguish between 7- and 10-digit calls when there are interchangeable CO codes (that is, CO codes that can be NPA codes).

Another reason to dial a "1" prefix digit is to indicate a 7-digit toll call within the HNPA. This is particularly useful when there is a toll CO code in the HNPA, in addition to the same CO code (non-protected) in an adjacent NPA which can be accessed locally by dialing a 7-digit number. In order to permit 7-digit dialing for both calls, the toll call is prefixed by "1." When the user dials a "1" prefix followed by a 7-digit number, it will be treated as a toll call in the HNPA (even if the ARS Toll Table indicates local). When the user dials the same number without the "1" prefix, it is treated as a local call across the NPA boundary.

- **DDD Calls with Prefix Digit 1 Not Required**— The first digit of a long distance call following the ARS access code may or may not be a 1 (dialing the "1" prefix before a 10-digit call is optional). In Systems where the 1 prefix is dialed (even though not required), the prefix will be ignored.
- **Operator Assisted and international Calls**— The first digits following the ARS access code are a "0" (operator), 00 (toll operator), and optionally followed by a 10-digit DDD number, or by 01 or 010 (international operator) for international dialing and optionally

followed by international destination address digits. Because of the variable number of digits required for these calls, an interdigit time-out is used to recognize end of dialing.

The System employs a short inter-digit timer and a long inter-digit timer during the dialing process. If the digits dialed so far are a valid (for example, "0") but more digits may follow, the short 3-second inter-digit timer will be started. If dialing does not continue before the timer expires, it is assumed that no more digits will follow. To override the short or long inter-digit timer for faster call processing, the originator may dial "#" to indicate end of dialing. To prevent a time-out race condition between the caller's switch and other network switches, a 10-second short inter-digit timer is used for incoming tie trunk calls. A 10-second long inter-digit timer is used when the digits dialed so far are not a valid destination. Time-out of this timer results in Intercept tone to the caller. The user may, however, dial the # character on any of these calls to cancel the time-out interval and indicate end of dialing. The use of the # symbol to indicate end of dialing is applicable only with touch-tone stations in the public network.

A trailing # is outputted for a range of digits in the dialed string (for example, international calls) except when outputting dial pulses. An option on the trunk group form can be used to suppress "#" outputting. The dialed digits, including the prefix 0 and the trailing #, are always outputted as dialed except that # is never outputted when outputting dial pulses.

- **International Direct Distance Dialing**— An international telephone number consists of a Country Code (CC) plus the National Number (NN). The NN is simply the number used when calling within the country. In the NANP, NN is a 10-digit address. The CC is one to three digits and the combination of CC and NN is a 12-digit maximum. In the NANP, the System is alerted to the fact that an international number is being dialed by use of a special prefix code as follows:
 - 011—indicates that the caller is making a station paid direct international call and CC plus NN digits follow. The term IDDD is normally associated with 011 plus (011+) station calls.
 - 011—indicates that the caller desires operator assistance in an international call, such as person-to-person, credit card, collect call, etc., and CC and NN digits follow. The term ICDOS (International Customer-Dialed and Operator-Serviced) reflects the nature of 01 + dialing options.

A "01 +" (ICDOS) call is similar to "0+" or "00+" (operator-assisted North American Network) call, whereas a "011 +" (IDDD) call is similar to a "1 +" call.
- **Special Service Codes**— The first digit following the ARS access code is a special system or service code. Such codes consist of only three digits in the form X11 (where X = 0-9) with or without dialing the 1 prefix digit. These are recognized as complete addresses, if no further digits are dialed, and are routed to the appropriate facility. The interdigit time-out determines whether the call is a 3- or 7-digit call. For example, if the user dials 911, the call will route to the police/emergency operator, and if the user dials 811-XXXX, the call will be translated as a 7-digit call for the repair bureau corresponding to the last four digits (811 is a service code for repair). In any case, the call is routed on the first three digits (X11) for these special services and translated by the ARS Analysis Table.
- **Call Dialed with Inter-Exchange Carrier (IXC) Access**— The first digits following the ARS access code is a 5- or 7-digit IXC code. The System then makes a determination of the number of digits to collect based on the digits following the code. The IXC code may

be followed by a DDD or IDDD number. This gives the user control over which carrier or facilities should be used for routing the call. However, the call will be routed based on administration of the IXC code in the ARS Analysis Table (see ARS Analysis Table).

The System supports three general IXC access arrangements which are commonly referred to as Feature Group A, B, and D (that is, FG A, FG B, FG D). From a callers perspective, the major differences between use of the various groups are:

- To select an IXC, FG A and FG B require the dialing of 7 digits (that is, NXX-XXXX or 950-0/1 XXX, respectively) but FG D requires just 5 digits (that is, 10XXX).
- Single-stage dialing is supported for FG D but FG A and FG B require 2-stage dialing. (Two-stage dialing means that there is a pause for dial tone between the two groups of dialed digits.)
- No customer identification digits are required for FG D.
- A touch-tone telephone is required to enter a Personal Identification Number code when using FG A or FG B. A dial pulse or touch-tone telephone may be used with FG D.

System default translation used for IXC call types are shown on Table 5-A (ARS Analysis Default Translations).

ARS Analysis Table

Purpose

This form is used to administer the ARS Analysis Table. The form allows for the mapping of customer dialed numbers (dialed strings) to routing patterns, using up to 18 digits. The ARS Analysis Table and the ARS Digit Conversion Table (coverage follows) replaces the ARS FNPA & HNPA Tables that were used in the previous release of the System.

Note: The ARS feature must be enabled on the System-Parameters Custom-Options form before associated ARS forms can be administered.

Administration Commands

The following administration commands can be used to access the ARS Analysis Table form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	ars analysis	Enter digits between 0-9, 'x' or 'X' (dialed string) ['part' 1-8] ['min' 1-23]
display	ars analysis	Enter digits between 0-9, 'x' or 'X' (dialed string) ['part' 1-8] ['min' 1-23] ['print' or 'schedule']
list	ars analysis	[start-dialed string] ['count' 1-2000 ['rp' 1-254 or r1-r32] ['part' 1-8] ['print' or 'schedule']
list	ars route chosen	Enter dialed number, [partition (1-8)], ['print' or 'schedule']

- Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on the form.

- **Percent Full**— character display-only field. Displays the percentage of the System's memory resources that have been utilized. A common pool of memory resources is shared between the ARS and AAR Analysis tables, the ARS and AAR Digit Conversion tables, and the Toll Analysis table.

If this field display indicates that the System memory resources are in jeopardy of becoming full (that is, 100 percent), perform any of the following to "free-up" memory resources:

- Delete unnecessary entries from any of the shared resources tables.
- Utilize RHNPA tables for 6-digit ARS routing.

- Reduce dialed string field entries to shortest possible length that accomplishes the desired function.

- **Partitioned Group Number (PGN)**— When completing a paper form, enter the PGN to be associated with this table. Valid entries are 1 through 8. Default is "1."
- **Dialed String**— Enter the dialed string of significant digits. Up to 18 characters maximum consisting of the digits 0 through 9 are allowed. A wild card letter "x" or "X" may be used to substitute for any digit occurring in the string at the character position where used. Valid entries are 0 through 9, x, X, or leave blank. Default is blank.

Note that the user dialed digits are matched to the Dialed String field entry that most closely matches the dialed number (referred to as the "longest match"). For example, if a user dials 957-1234 and the ARS Analysis Table has Dialed String entries of 957-1 and 957-123, the match is on the 957-123 entry. In addition, an exact match is made on Dialed string entries of the same number of digits in cases where wild card characters (Xs) are used. For example, if 411 is dialed and the table has Dialed String entries of 411 and X11, the match is on the 411 entry.

- **Min**— Enter the minimum number of digits needed to validate and route the call. Valid entries are 1 through 23. Default is blank
- **Max**— Enter the maximum number of digits needed to validate and route the call. Valid entries are 1 through 23. Default is blank.
- **Route Pat** (Routing Pattern)— Enter the routing pattern number (1 through 254), a pointer to an associated RHNPA form (r1 through r32) to be used to route the call once all identifying digits have been received, or "ign." The "ign" entry when used causes the associated Dialed String entry to be ignored and the search to continue for the next match. This is used typically for home NPA calls where some callers dial 10-digits and others dial 7-digits. For example, if "201" is the Dialed String entry (min/max = 10/10, Route Pat = ign, and Call Type= fnpa), and the number dialed is 201-957-1234; the 201, when matched by the search routine is ignored and the table is researched using 9571234. Valid entries for this field are 1 through 254, r1 through r32, ign, or leave blank. Default is blank.
- **Call Type**— Valid call types are:

CALL TYPE	DESCRIPTION
fnpa	10-digit call (11 digits with Prefix Digit "1")
hnpa	7-digit call
int	international
natl	national numbers within a country—used for international applications)
op	operator
svc	service

Default is a blank field.

Table 5-A provides a listing of all ARS Analysis default translations.

Note: Any dialed digit string not accounted for on the table is considered invalid and the call is routed to intercept. These default translations are used for call processing regardless of whether ARS has been optioned for on the switch.

The translations shown on Table 5-A appear only once in the switch's memory but are displayed in sorted order (including additions) on each of the eight possible ARS Analysis Table forms when displayed.

TABLE 5-A. ARS Analysis Default Translations

Dialed String	Total Digits		Route Pattern	Call Type
	Min.	Max.		
0	1	1		op
0	11	11		op
00	2	2		op
00	12	12		op
01	10	23		iop
010	3	3		iop
011	10	23		int
1	11	11		fnpa
10XXX	5	5		op
10XXX0	6	6		op
10XXX0	16	16		op
10XXX00	7	7		op
10XXX00	17	17		op
10XXX01	15	23		iop
10XXX010	8	8		iop
10XXX011	15	23		int
2	7	7	1	hnpa
3	7	7	1	hnpa
4	7	7	1	hnpa
5	7	7	1	hnpa
6	7	7	1	hnpa
7	7	7	1	hnpa
8	7	7	1	hnpa
9	7	7	1	hnpa
X11	3	3		svc

Legend:

fnpa - foreign number plan area (10-digit call)

hnpa - home number plan area (7-digit call)

int - international

iop - international operator

op - operator

svc - service

X - any digit (0-9)

[illegible]

SCREEN 5-1. ARS Analysis Table Form

ARS Digit Conversion Table

Purpose

This form is used to convert public network numbers (ARS) to private network numbers (AAR). Its purpose is to save toll charges and to allow users to dial all calls using a public network number. Also, unauthorized public network calls can be routed to an attendant or given intercept tone.

The form allows for the replacement of all or part of a dialed digit string with a modified string. The modified string represents an alternative equivalent address and results in the call being routed according to the modified string. If the ARS Access Code is dialed, this table is accessed during call processing. Up to 300 entries in software can be shared between this table and the AAR Digit Conversion Table.

The ARS Digit Conversion feature enhances the capabilities of the ARS feature so that outgoing public network calls and private network calls can be changed to private or public network destinations. The calls are then routed via the AAR feature.

The ARS feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

Administration Commands

The following administration commands can be used to access the ARS Digit Conversion Table form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	ars digit-conversion	Enter digits between 0-9 'x' or 'X'
display	ars digit-conversion	Enter digits between 0-9, 'x' or 'X' ['print' or 'schedule']
list	ars digit-conversion	Enter ['start' matching pattern] ['count' (1-300)] ['print' or 'schedule']

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form.

Note that when the form is accessed via an administration command such as display or change, the entries are sorted separately in the order of the matching pattern. Specific digits are sorted before the wild card character "x" or "X."

- **Percent Full**— 3-character display-only field. Displays the percentage of the System's memory resources that have been utilized. A common pool of memory resources is shared between the ARS and AAR Analysis tables, the ARS and AAR Digit Conversion tables, and the Toll Analysis table.

If the Percent Full field display indicated that the System memory resources are in jeopardy of becoming full (that is, 100 percent) perform any of the following to “free-up” memory resources:

- Delete unnecessary entries from any of the shared resources tables.
 - Utilize RHNPA tables for 6-digit ARS routing.
 - Reduce dialed string field entries to shortest possible length that accomplishes the desired function.
- **Matching Pattern**— Enter a 1-to 18-digit string to be matched against a dialed number. Matching Pattern entries must be unique within the table. The string may contain the digits 0 through 9 and wild card character “x” or “X” which is used to match any digit in the range of 0 through 9. If a Prefix Digit is required for 10-digit DDD numbers, then the Prefix Digit “1” must be present in the Matching Pattern string for the match to succeed.

If the associated Replacement String field has an entry, the Matching Pattern field must have an entry.

- **Replacement String**— Enter a 1- to 18-digit string which will replace the matched portion of the dialed number. The string may contain the digits 0 through 9, a # character, or be blank (that is, no entry). The # character, when used, must be at the end of the digit string and is used to signify end of dialing.

Note that a blank replacement string has the effect of just deleting the matched portion of the dialed digit string. The # character in the replacement string signifies the end of the modified digit string so that any digits dialed by the user after the matched portion of the string are ignored by the ARS/AAR features.

Table 5-B provides several ARS Digit Conversion examples.

The following conditions are assumed: ARS Access Code = 9, AAR Access Code = 8, Home RNX = 222, Prefix “1” required on all long-distance DDD calls, Dashes (“-”) shown on table are for readability only.

TABLE 5-B. ARS/AAR Digit Conversion Examples

Operation	Actual Digits Dialed	Matching Pattern	Replacement String	Modified Address	Notes
DDD Call to ETN	9-1-303-538-1345	1-303-538	362	362-1345	Routing pattern associated with RNX 362 will be selected.
Terminating local DDD call to an internal station	1-201-957-5567 957-5567	1-201-957-5 or 957-5	222-5	222-5567	Call terminated to Home RNX 222, Extension 5567.
Unauthorized call to intercept	9-1-212-976	1-XXX-976	#	(blank)	# Signifies the end of dialing. All calls to CO code 976 are blocked.
International Calls to Attendant	9-011-91-672530	011-91	222-0111#	222-0111	Call routed to local switch (RNX 222), then the attendant (0111). May also be used to block unauthorized IDDD calls. Route call to announcement by replacing 0111 with an announcement extension.

Note: The dialed digits are matched to the Matching Pattern that most closely matches the dialed number (referred to as longest match). For example, if the dialed string is 957-1234 and matching patterns 957-1 and 957-123 are in the table, the match is on pattern 957-123. In addition, an exact match is made on entries of the same number of digits in cases where wild card characters (Xs) are used. For example, if 411 is dialed and the table has Matching Pattern entries of 411 and X11, the match is on the 411 entry.

[illegible]

SCREEN 5-2. ARS Digit Conversion Table Form

Remote Home Numbering Plan Area (RHNP)

Purpose

This form is used when additional 3-digit translations are required in addition to translations performed on the ARS/AAR Analysis Table. Codes in the range of 000 through 999 may be processed. The RHNP form is typically used for the direct distance dialing of central office codes in a nonlocal NPA. Digit translations for this type call begins on the ARS or AAR (ARS/AAR) Analysis Table. Typically, the first three digits representing a nonlocal NPA number are translated using the ARS/AAR Analysis Table and, where appropriate, the table then points to an RHNP Table for the next 3-digit translation. For example, "r1," "r10," "r32" entries on a ARS/AAR Analysis Table point to respective RHNP Tables 1, 10, or 32. The next three digits dialed represent a central office code in the FNPA. These digits are translated by the RHNP Table and routed via the assigned routing pattern to the central office. Digit translation requiring both the Digit Analysis and RHNP Tables is sometimes referred to as 6-digit translations (3-digits are translated via the Digit Analysis Table and the next 3-digits translated via the RHNP Table). The RHNP Table can be used with any call type requiring additional 3-digit translations.

The RHNP form is used to assign 3-digit codes and associated routing pattern numbers for up to 32 RHNP tables. One form is required for each block of 100 codes in the range 000 through 999.

The RHNP form provides a choice of up to 12 routing patterns for the block of 000 through 999 codes.

Administration Commands

The following administration commands can be used to access the RHNP Table form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	rhnpa	Enter RHNP and office code n:xyy n(1-32) x(0-9) y(0-9) y(0-9) (Table No. 1-32:office code = office code 000-999)
display	rhnpa	Enter RHNP and office code n:xyy n(1-32) x(0-9) y(0-9) y(0-9) (Table No. 1-32:office code = code 000-999) ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **RHNP TABLE**— Enter the applicable table number from 1 through 32. Up to eight forms may be required for each table, one for each hundreds block, two through nine.
- **CODE**— Enter the desired hundreds block that is, 000-099, 100-199, 200-299, etc, through 900-999. A separate form is required for each hundreds block.

- **Pattern Choices**— Enter a pattern number from 1 through 254 representing the routing patterns that can be accessed by the RHNPA's identified on this screen form only. Each screen form on each RHNPA Table may have 12 different Pattern Choices. Pattern choices listed on one screen form automatically defaults to the other forms of the same table. If one pattern will be used most often (that is, accessed by the greatest number of office codes in this block), assign that pattern as choice one. Otherwise, the correlation between Pattern Choice Numbers and Patterns is completely arbitrary.
- **Code-Pattern Choice Assignments (from 1 through 12 above)**— Enter a Pattern Choice number from the list above in the field associated with each Office Code. The Code fields represent the last two digits of the codes within the hundreds block. The Pattern Choice Assignment points to the Pattern Choice above, which contains the Routing Pattern to be used.

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RHNPA TABLE: _

CODE : x00 - x99

Pattern Choices

1: _	3: _	5: _	7: _	9: _	11: _
2: _	4: _	6: _	8: _	10: _	12: _

Code-Pattern Choice Assignments (from 1-12 above)

00: <u>1</u>	10: <u>1</u>	20: <u>1</u>	30: <u>1</u>	40: <u>1</u>	50: <u>1</u>	60: <u>1</u>	70: <u>1</u>	80: <u>1</u>	90: <u>1</u>
01: <u>1</u>	11: <u>1</u>	21: <u>1</u>	31: <u>1</u>	41: <u>1</u>	51: <u>1</u>	61: <u>1</u>	71: <u>1</u>	81: <u>1</u>	91: <u>1</u>
02: <u>1</u>	12: <u>1</u>	22: <u>1</u>	32: <u>1</u>	42: <u>1</u>	52: <u>1</u>	62: <u>1</u>	72: <u>1</u>	82: <u>1</u>	92: <u>1</u>
03: <u>1</u>	13: <u>1</u>	23: <u>1</u>	33: <u>1</u>	43: <u>1</u>	53: <u>1</u>	63: <u>1</u>	73: <u>1</u>	83: <u>1</u>	93: <u>1</u>
04: <u>1</u>	14: <u>1</u>	24: <u>1</u>	34: <u>1</u>	44: <u>1</u>	54: <u>1</u>	64: <u>1</u>	74: <u>1</u>	84: <u>1</u>	94: <u>1</u>
05: <u>1</u>	15: <u>1</u>	25: <u>1</u>	35: <u>1</u>	45: <u>1</u>	55: <u>1</u>	65: <u>1</u>	75: <u>1</u>	85: <u>1</u>	95: <u>1</u>
06: <u>1</u>	16: <u>1</u>	26: <u>1</u>	36: <u>1</u>	46: <u>1</u>	56: <u>1</u>	66: <u>1</u>	76: <u>1</u>	86: <u>1</u>	96: <u>1</u>
07: <u>1</u>	17: <u>1</u>	27: <u>1</u>	37: <u>1</u>	47: <u>1</u>	57: <u>1</u>	67: <u>1</u>	77: <u>1</u>	87: <u>1</u>	97: <u>1</u>
08: <u>1</u>	18: <u>1</u>	28: <u>1</u>	38: <u>1</u>	48: <u>1</u>	58: <u>1</u>	68: <u>1</u>	78: <u>1</u>	88: <u>1</u>	98: <u>1</u>
09: <u>1</u>	19: <u>1</u>	29: <u>1</u>	39: <u>1</u>	49: <u>1</u>	59: <u>1</u>	69: <u>1</u>	79: <u>1</u>	89: <u>1</u>	99: <u>1</u>

SCREEN 5-3. RHNPA Table Form (Page 1 of 1)

Automatic Route Selection—Toll Table

Purpose

This form is used to specify whether calls to central office codes listed on the table are, with respect to the distant end of the trunk group, toll or nontoll calls.

The form is used to assign Toll Tables as required for ARS. One form is required for each block of 100 central office codes.

Administration Commands

The following administration commands can be used to access the ARS Toll Table form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	ars toll	n:xxx (1-32:office code)
display	ars toll	n:xxx (1-32:office code) ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **ARS TOLL TABLE**— Enter the Toll Table number from 1 through 32. Up to eight forms may be required for each table, one for each hundreds block 2 through 9.
- **OFFICE CODES**— Enter a hundreds block, that is, 200 to 299 through 900 to 999. A separate form is required for each hundreds block.
- **00: through 99:**— Enter “n” beside each central office code to be designated as non-toll. These fields represent the last two digits of the codes within the hundreds block. If no changes are made, the codes are implemented as toll-type codes (System default).

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ARS TOLL TABLE: _

OFFICE CODES: x00-X99

00: y	10: y	20: y	30: y	40: y	50: y	60: y	70: y	80: y	90: y
01: y	11: y	21: y	31: y	41: y	51: y	61: y	71: y	81: y	91: y
02: y	12: y	22: y	32: y	42: y	52: y	62: y	72: y	82: y	92: y
03: y	13: y	23: y	33: y	43: y	53: y	63: y	73: y	83: y	93: y
04: y	14: y	24: y	34: y	44: y	54: y	64: y	74: y	84: y	94: y
05: y	15: y	25: y	35: y	45: y	55: y	65: y	75: y	85: y	95: y
06: y	16: y	26: y	36: y	46: y	56: y	66: y	76: y	86: y	96: y
07: y	17: y	27: y	37: y	47: y	57: y	67: y	77: y	87: y	97: y
08: y	18: y	28: y	38: y	48: y	58: y	68: y	78: y	88: y	98: y
09: y	19: y	29: y	39: y	49: y	59: y	69: y	79: y	89: y	99: y

SCREEN 5-4. ARS Toll Table Form (Page 1 of 1)

Routing Patterns

Purpose

The digit translations performed on a Public Network Destination Number by the ARS/AAR Digit Analysis and RHNPA Tables cause a specific routing pattern to be selected for routing the call. The routing pattern contains a sequence of up to six trunk groups on which an attempt is made to route the call. The trunk groups in a pattern are generally arranged by increasing cost of using the facility and are tested for compatibility and availability in that order.

A Routing Pattern form is used to implement one of up to 254 routing patterns, each of which can contain up to six alternate trunk mates. This form supports the ARS, AAR, GRS, and the Call by Call Service Selection features.

Administration Commands

The following administration commands can be used to access the Routing Pattern form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	route-pattern	1-254
display	route-pattern	1-254 [print]
list	mute-pattern	Enter ['trunk' (1-99)] ['service'/feature name string] [print]

* Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Pattern Number**— This is a display-only field when the form is accessed using an administration command such as change or display. When completing a paper form, enter a pattern number from 1 through 254.
- **Grp No.**— Enter the desired trunk group number from 1 through 99 to specify which trunk group will be associated with the entries on this line of the form.
- **FRL**— Enter the Facility Restriction Level (FRL) 0 through 7 (0 being the least restrictive and 7 being the most restrictive) to be assigned this routing preference (that is, this line of parameters on the form). Trunk group FRLs are changeable from pattern to pattern. The calling party's FRL must be greater than or equal to this FRL to access the associated trunk group. Valid entries are 0 through 7, or leave blank.
- **NPA** (this entry not required when used for AAR)—For ARS applications, enter the NPA of the distant end (that is, terminating end). For WATS trunks, the term NPA is the same as the home NPA. For tie trunks, the NPA field is left blank. Valid entries are three digits in the form: first digit (2 through 9), second digit (0 through 9), third digit (0 through 9). Default is blank.

- **Prefix Mark** (not required for AAR)—For ARS, enter a number from 0 through 3 as indicated below. This specifies when the prefix digit 1 is outpulsed. Valid entries are 0 through 3, or leave blank. Default is “0.”

For a WATS trunk, the Prefix Mark is the same as the local CO trunk. For tie trunks, the Prefix Mark field is left blank.

Note: Prefix Mark operations only apply to fnpa or hnpa call types.

0 Indicates that the Prefix digit 1 is never outpulsed.

1 Indicates that the Prefix digit 1 is outpulsed if **and only if** the call is a 10-digit call. Prefix Mark 1 should be selected for those HNPAs that require users to dial “1” to indicate a toll call.

2 Indicates that the Prefix digit 1 is outpulsed for **all** toll calls, 7- and 10-digit.

3 Indicates that the Prefix digit 1 is outpulsed for **all** toll calls. These calls are always outpulsed as 10-digit numbers, even those within the HNPA.

- **Toll List** (not required for AAR)—For ARS, enter a number (1 through 32) that references the ARS Toll Table associated with the terminating NPA of the trunk group. This field must be completed if the Prefix Mark field is “2” or “3.” Valid entries are 1 through 32, or leave blank. Default is blank.
- **No. Del Digits**— Enter the total number of digits (0 through 18) to be deleted from the dialed string when this trunk group is selected for call routing. Valid entries are 0 through 18, or leave blank. Default is blank.
- **Inserted Digits**— Enter the actual digits (and special characters) to be inserted into the dialed string, up to 36 digits. Characters 0 through 9, “*,” “#,” “+,” “%,” and “,” maybe inserted. Each special character (for example, “*,” “%,” etc.) uses two of the 36 available inserted character positions. The digits may be divided into four groups separated by a wait for dial control character (“+”). The “,” is used for pause, “+” is used to wait for second dial tone, “#” is used for end of dialing, and “%” is used for end-to-end signaling. A digit group is limited to a maximum of 32 characters. Up to 52 digits may be outpulsed. This includes 34 digits inserted (32 digits maximum per group plus one special character) plus a maximum of 18 digits originally dialed. Valid entries are 0 through 9, “*,” “+,” “%,” “,” and “#.”

Note that the special character “p” (pause) should not be used unless absolutely necessary as the first character in the string. Typical misuse can result in calls such as AD or LND calls not completing to the far-end.

- **IXC**— Only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form. Enter the last three digits to represent an equal access Inter-exchange Carrier code (for example, 10XXX). This field is used by all calls that mute via an IXC, and is also used for SMDR. If an IXC is not specified, a call will be transmitted by the presubscribed common carrier. Note that the IXC value for non-ISDN trunk groups must be entered in the Inserted Digits fold.

- **BCC Value** (required by Generalized Route Selection feature)—Only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form. Enter “y” or “n” in the appropriate Bearer Capability Class (BCC) column (0, 1, 2, 3, or 4) to specify whether or not the BCC is valid for the associated route (1 through 6). Default is “y.” The following defines the BCC values:

BCC VALUE	DESCRIPTION
0	Voice-Grade Data and Voice
1	56 kbps Data (Mode 1)
2	64 kbps Data (Mode 2)
3	64 kbps Data (Mode 3)
4	64 kbps Data (Mode 0)

Note: Refer to the GRS in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of (BCCs) and their use to provide specialized routing for various types of voice and data calls. The BCC value is used to determine compatibility when non-ISDN-PRI facilities are connected to ISDN facilities (ISDN-PRI Inter-working feature).

- **TSC**— Allowable entries are y or n. When a y is entered in this field, the CA-TSC field becomes writable. (See “CA-TSC Request” below.) Default is n. For an NCA-TSC, the n option means that the NCA-TSC will be blocked if it is routed through this pattern in a tandem switch.
- **CA-TSC Request**— This field becomes writable when a y is entered in the tsc field. (See “TSC” above.) You must specify when a CA-TSC will be established if the call is routed through a particular preference of a routing pattern. Allowable entries are then as-needed, at setup, and none. The first two entries, “as-needed” and “at-setup” are meaningful only for CA-TSCs. If the “as-needed” option is entered, a CA-TSC will be established only when it is requested during a call. If the “at-setup” option is requested, then the CA-TSC will be established when the call is set up. Selection of “none” option means that there will be no CA-TSC associated with this call. Default is “none.”
- **Service/Feature** (required by the Call by Call Service Selection feature)—Only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form. Enter up to 15 characters that represent the Service/Feature that is carried by a call in this routing pattern (see the Network Facilities form for all predefined and administered Services/Features). Default is blank.
- **Band** (required by the Call by Call Service Selection feature)—Enter a number (0 to 255) that represents the OUTWATS band number. This field is displayed when the Services/Features field has a value of “outwats-bnd.” Default is blank.
- **ITC** (Information Transfer Capability)—Used to administer the type of traffic (restricted, unrestricted, or both) that is allowed to be carried by this routing preference. If the ITC field is administered as “rest” (restricted), then only calls that are originating from restricted endpoints may access this routing preference. If the ITC field is administered as “unre” (unrestricted), then only calls that are originating from unrestricted endpoints may access this routing preference. If the ITC field is administered as “both,” then calls

originating from both restricted and unrestricted endpoints may access the facility. Default is "rest."

- **BCIE (Bearer Capability Information Element)**— Used to determine how to create the Information Transfer Capability codepoint in the Bearer Capability IE of the SETUP message. The BCIE field only applies to ISDN-PRI trunks and is displayed and administrable only if the ITC field is administered as "both." Allowable entries are "ept" (endpoint) and "unre" (unrestricted). Default is "ept."

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Pattern Number: _

Grp . No.	FRL	NPA	Prefix Mark	Toll List	No. Del Digits	Inserted Digits	IXC
1 .	—	—	—	—	—	—	—
2 .	—	—	—	—	—	—	—
5 .	—	—	—	—	—	—	—
4 .	—	—	—	—	—	—	—
5 .	—	—	—	—	—	—	—
6 .	—	—	—	—	—	—	—

BCC Value	CA-TSC	ITC	BCIE	Service/Feature	
0 1 2 3 4 TSC	Request				
1 . y y y y y n	—	both	ept	—	Band: _
2 . Y Y Y y y n	—	rest	—	—	Band: _
3 . y y y y y n	—	rest	—	—	Band: _
4 . y y y y y n	—	rest	—	—	Band: _
5 . y y y y y n	—	rest	—	—	Band: _
6 . y y y y y n	—	rest	—	—	Band: _

SCREEN 5-5. Routing Pattern Form (Page 1 of 1)

Implementation Note:

The IXC, BCC Value, TSC, CA-TSC Request, ITC, BCIE, and Service/Feature fields are only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

The CA-TSC field is displayed only if the TSC field is "y."

The BCIE field is displayed only when "both" is entered in the ITC field.

The Band field is only displayed if the Service/Feature field is "outwats-band."

list route-pattern

ROUTE PATTERNS

Route Pattern	Pref	Trunk Group	FRL	IXC	BCC					TSC	CA_TSC request	ITC	Service/Feature
					0	1	2	3	4				
1	1	1	0	user	y	n	n	n	n	n	none		inwats
	2	2	1	user	y	n	n	n	n	n	none		operator
	3	3	2	user	y	n	n	n	n	n	none		
	4	4	3	user	y	n	n	n	n	n	none		outwats
23	1	99	1	user	n	n	y	n	n	n	none	rest	accunet
	2	5	4	user	n	n	n	n	yn		none	unre	sdn
123	1	33	1	user	n	y	y	n	n	n	none	rest	accunet
	2	2	2	user	n	n	y	n	n	n	none	both	accunet
	3	76	4	user	n	n	y	n	n	n	none	both	Sdn

SCREEN 5-6. List Route Patterns Form (Page 1 of 1)

Implementation Note:

The IXC, BCC Value, TSC, CA-TSC Request, ITC and Service/Feature fields are only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

The BCIE field only applies to ISDN-PRI trunks and is displayed and administrable only if the ITC field is administered as "both."

The Band field is only displayed if the Service/Feature field is "outwats-band."

Time of Day Routing

Purpose

This form is used to assign the Time of Day (TOD) routing plan. The plan provides for routing of ARS and AAR calls based on the time of day that each call is made. Up to eight TOD routing plans may be administered, each scheduled to change up to six times a day for each day in the week.

The TOD routing plan selected for a call is controlled by the Time of Day Plan Number administered to the COR assigned the facility (that is, station) that a user is calling from. The COR is inspected to identify the TOD plan number (1 through 8) to be used to process the call. On the TOD Routing Plan, a "Plan #" (1 through 8, based on the time of day and the day) is identified. This plan number is used to select an ARS/AAR Analysis Table with the same Partitioned Group Number (1 through 8). On the Analysis Table a routing pattern is identified to route the call.

Note: The following optional features must be enabled on the System-Parameters Customer-Options form before this form can be administered: ARS and/or Private Networking, ARS Partitioning, and TOD Routing.

Administration Commands

The following administration commands can be used to access the TOD Routing Plan form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
display	time	[print]
display	time-of-day	1-8 (plan number) ['print' or 'schedule']
change	time-of-day	1-8

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **Time of Day Routing Plan**— Specifies the TOD routing plan number. Up to eight of these plans can be administered. Enter a plan number from 1 through 8 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as **add** or **change**.
- **Act Time**— Specifies the time that the routing plan administered in the next field (PGN #) will become effective. The time is represented in military time. It is recommended that activation times for the same day must be listed in increasing order. Allowable entries are 00:00 through 23:59. There must be at least one entry for each day. Default is "00:00."

- **PGN #**— Specifies the ARS/AAR Digit Analysis Table with a PGN of the same number (1 through 8) that contains routing patterns that will be in effect from the activation time until the activation time of the next scheduled plan change. The Table selected and the routing pattern used (1 through 254) is based on the number dialed. Enter a Partitioned Group number (1 through 8) that points to the appropriate ARS/AAR Analysis Table to be used. There must be at least one entry for each day. Default is "1."

Note that it is possible to point to an AAR/ARS Analysis Table associated with a PGN that is different than that assigned the facility that the caller is using. Proceed with caution when making these assignments.

Page 1 of 1

TIME OF DAY ROUTING PLAN X

	Act Time	PGN #	Act Time	PGN #	Act Time	PGN #	Act Time	PGN #	Act Time	PGN #	Act Time	PGN #
Sun	00:00	1	- : -		- : -	.	- : -	-	- : -	-	- : -	-
Mon	00:00	1	- : -		- : -	-	- : -	-	- : -	-	- : -	-
Tue	00:00	1	- : -		- : -	-	- : -	-	- : -	-	- : -	-
Wed	00:00	1	- : -		- : -	-	- : -	-	- : -	-	- : -	-
Thu	00:00	1	- : -		- : -	-	- : -	-	- : -	-	- : -	-
Fri	00:00	1	- : -		- : -	-	- : -	-	- : -	-	- : -	-
Sat	00:00	1	- : -		- : -	-	- : -	-	- : -	-	- : -	-

SCREEN 5-7. Time Of Day Routing Form (Page 1 of 1)

Implementation Note:

Up to eight Time of Day Routing Plans (1 through 8) may be administered. The plan selected for processing a call is determined by examining the COR assigned the facility that the call is originating from. CORs may be administered with Time of Day Plan Numbers where required.

Automatic Alternate Routing

This section contains the network-type forms and associated instructions dedicated primarily to implementing the Automatic Alternate Routing (AAR) feature.

AAR provides alternative routing choices for private on-network calls. The feature automatically selects the most desirable and least expensive (by a customer-specified order) route over various trunking facilities for private network calls. AAR also provides digit modification to allow on-network calls to route through the public network when an on-network route is not available.

The network of PBXs interconnected with private line facilities that utilize the AAR feature are referred to as an ETN. An ETN is a 4-level hierarchical network of PBXs. There are two levels of Tandem switches and two levels of subtending PBXs. The first level of Tandems are called fully interconnected tandem switches, and the second level of Tandems are called the final groups of tandem switches. The third level of PBXs, homing directly on a Tandem switch, are called Main PBXs, and the last level of PBXs homing on a Main are called Satellites or Tributaries. The Tandem switches contain most of the intelligence for routing and digit manipulation.

Typically, AAR simplifies dialing. Users need only dial the AAR access code (normally 8) followed by an ETN or PNDN. The feature selects the route and does whatever digit manipulation is necessary. In addition, AAR selects the most desirable On-Net or Off-Net route. If the first choice route is not available, another route is chosen automatically. For outgoing ISDN calls, route selection is dependent on BCC, FRL, and type of facility.

AAR assumes a Uniform Numbering Plan and its capabilities include flexible Digit Analysis, Partitioning, Time of Day Routing, Automatic Overflow to DDD, Trunk-to-Trunk Signaling, Traveling Class Marks, and Sub-Net Trunking. An additional capability allows a user to dial an ETN address to reach a specification foreign country location. The call is routed On-Net to an appropriate exit point, where digit insertion is used for conversion to the appropriate access code, country code, city code, and exchange.

AAR can access the same trunk groups and share the same routing patterns as ARS when activated.

Refer to AAR in Chapter 4 for a complete listing of all System forms and/or fields on forms that must be completed or considered when implementing AAR. Forms such as the Dial Plan, COR, Feature Access Codes, and Feature-Related System Parameters that support both networking and other functional areas such as voice and data management may also require implementation.

Note that the method used to administer AAR in the previous releases of the DEFINITY Generic 1 System has been changed with this release. The AAR RNX Translation Table and 10-Digit to 7-Digit Conversion Tables that were previously used have been replaced with two new forms (AAR Analysis and AAR Digit Conversion). Now, a more flexible private networking arrangement is supported that allows a better interworking with DEFINITY Communications System Generic 2 and other systems. The System can now be administered to include RN, RNXX, and RXX dial plans, where R = 2 to 9, N = 2 to 9, and X = 0 to 9.

ETN addresses for DCS or UDP destinations remain limited to a 7-digit format. This means that the location code part for UDP/DCS is a 3-digit code of the form RNX and the extension number is a 4-digit number in the XXXX format (along with limitations that the UDP/DCS number cannot start with a "0"). For other destinations, ETN addresses are not limited to the 7-digit RNX format. ETN addresses can be administered as 5, 6, or 7 digits in length and the AAR location codes (PBX codes) of the format RN, RX, XX, RNX, RXX, XXX, and RNXX are supported.

AAR Forms

The following AAR forms are provided in this section. Since AAR and ARS share several common forms, reference to the appropriate form is provided, where applicable.

Note: The Private Networking option on the System-Parameters Customer-Options form must be enabled before associated AAR forms can be administered.

- AAR Analysis Table
- AAR Digit Conversion Table
- RHNPA (form information provided in the ARS section)
- Routing Patterns (form information provided in the ARS section)
- TOD Routing (form information provided in the ARS section)

The following provides an overview of the System's AAR forms and their purpose. A description of the forms and how software uses their associated data entries to process a call is described.

Figure 5-1 (see ARS feature description) is a high-level presentation on the use of the various System forms in the processing of AAR and ARS calls. ARS call processing is included here because of the interrelationship that exists between the two features when both have been activated in a System. If your System does not have the ARS optioned for, all call processing functionality using ARS as shown on the flow diagram is not available.

The forms are shown in the general order that software accesses them when processing a call. Actual software processing may differ in some cases. The flow diagram does not show all software processes and decision making routines that occur. It is intended only to show the use of the forms and their various parameters in call processing.

The flow diagram assumes that the associated optional features have been enabled on the System-Parameters Customer-Options form. For those features not enabled, consider the flow as through the associated form(s) and through any decision making blocks that occur as a result of using the form. The optional features include:

- ARS
- Private Networking (AAR)
- ARS Partitioning
- TOD Routing
- ARS/AAR Digit Conversion.

Immediately following the flow diagram is a summary of each of the forms (Figure 5-2) and the parameters that may be administered on the forms. Use this summary as a "quick reference" when you need an overview of just what is on each form.

Following this introduction are detailed instructions for completing each unique AAR form. Refer to the ARS feature description for instructions on forms that are shared between the two features (that is, RHNPA, Time of Day Routing, and Routing Patterns).

As shown on Figure 5-1, an AAR call begins with the dialing of an AAR access code (typically 8). If the facility (for example, voice terminal) is Origination or Outward restricted or the user (by COR assignment to the facility) is Controlled Outward or Total Restricted, intercept treatment is provided as shown on the figure. Second Dial Tone is provided to the calling party if AAR/ARS Dial Tone is optioned for on the Feature-Related System Parameters form. The caller then dials an ETN or Public Network Destination number.

The dialed digits are compared to numbers entered in Matching Pattern fields on the AAR Digit Conversion form. If a match occurs, a new number from the Replace field on the form is used to route the call. Certain dialed digit strings may be routed (via their replacement strings) to the attendant, an announcement, or intercept if required. If the call is allowed, call processing continues based on how the ARS Partitioning and Time of Day Routing (TOD Routing) options are administered on the System-Parameters Customer-Options form as follows:

- **ARS Partitioning Enabled and TOD Routing Not Enabled:**

The Partitioned Group Number (PGN) of the calling party (1 through 8, administered via COR assignment to station) is used to make the choice of an AAR Analysis Table form with a PGN of the same number 1 through 8).

- **ARS Partitioning Enabled and TOD Routing Enabled:**

The Time of Day Plan Number of the calling party 1 through 8, administered via" COR assignment to station) is used to make the choice of a TOD Routing form of the same number 1 through 8). On the form, a Plan Number 1 through 8) is identified based on the day and time of day. This Plan Number is used to select an AAR Analysis Table form with a PGN of the same number 1 through 8).

ARS Partitioning and TOD Routing Not Enabled:

The AAR Analysis Table form (only one form in the System when ARS Partitioning and TOD Routing not enabled) is accessed for continued call processing.

The AAR Analysis Table form is used to map dialed strings to routing patterns. Each dialed string entry on the form is associated with a routing pattern and a call type (for example, aar, ars, attendant, etc). Refer to Table 5-C in the AAR Analysis Table information for default translations associated with typical dialed strings.

If the Call Type field on the Analysis form for a digit string is "ars," call processing crosses over to ARS as shown on Figure 5-1 and the call is processed as an ARS call. If the Call Type is not "ars" the call is processed based on the Call Type entry. Certain calls may be directed to the attendant or to an attendant group if required by proper administration of the Call Type field. Refer to the AAR Analysis Table information for the various Call Type options available.

For regular AAR calls, RHNPA translations are required for certain dialed strings, "r1" through "r32" is entered in the appropriate Routing Pattern field on the AAR Analysis Table form. The RHNPA form is used for translating 3-digit codes in the range 000-999. The table is used typically for the DDD of central office codes in a nonlocal NPA. The first three dialed digits are translated on the AAR Analysis Table form and, where appropriate, the form points to a RHNPA table (1 through 32) for further translations.

If the AAR Analysis table points to an RHNPA table, the next three dialed digits are Compared with 3-digit codes in the selected RHNPA table. Each code on the table may have an administered reference to a routing pattern number (1 through 254).

The Routing Pattern form is used to route a call over one of six possible trunk groups. Up to 254 Routing Patterns may be assigned in the System. Based on entries on the form, up to 18 leading digits may be deleted from the dialed number and up to 36 (after digit deletion) may be inserted. Up to 52 digits may be outputted (includes special symbols "+," "%," "#," "*", and ","). When they are used, special symbols count as two digits each.

Compatibility checks ensure that the calling party's FRL is greater than or equal to the routing preference's FRL, the BCC of the calling party matches the BCC specified for the routing preference (ISDN calls only), the facility type is okay for the call type, and there is an unused circuit (that is, trunk port) available in the selected trunk group. With all checks complete and okay, digits are outputted over the selected trunk group member.

AAR Trunking Facilities

Off-Net facilities can include trunks such as CO, FX, and WATS. These trunks may be used to carry private network calls. On-Net facilities can include trunks such as tie, tandem, and private ISDN-PRI trunks. These trunks are dedicated to the private network.

Tandem trunks are used to interconnect two tandem nodes in an ETN. TCMs are appended to numbers outputted on these trunks. (TCMs represent the originating user's FRL or the FRL of the user's Access trunk group.) Access trunks are used to connect a subtending main PBX to a tandem node. Tie trunks are used to interconnect a satellite/tributary and the homing main PBX. An ETN tandem node can, however, directly access main and tributary PBXs that are homed on another tandem node using bypass Access trunks.

SubNet Trunking

Provides a means to modify dialed digits sent over the private or public network. Address manipulation may be required when the first choice route of a routing pattern is busy and the call must be placed over alternate facilities. The alternate facilities may require that one or more initially dialed digits be deleted and other digits inserted to form a new digit string that is compatible with the dialing plan of the intermediate network nodes. Sub-net Trunking is typically used for:

- Routing a call from a tandem PBX to a subtending PBX
- Reaching a final PBX and then "hopping off" to public network facilities
- Overflowing to DDD
- Placing an IDDD call via AAR

AAR Analysis Table

Purpose

This form is used to administer the AAR Analysis Table. The form allows for the mapping of customer dialed numbers (dialed strings) to routing patterns, using up to 18 digits. The AAR Analysis Table replaces the RNX Translation Table that was used in previous releases of the System.

Note: The Private Networking (that is, AAR) feature must be enabled on the System-Parameters Custom-Options form before associated AAR forms can be administered.

Administration Commands

The following administration commands can be used to access the AAS Analysis Table form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	object	Qualifier*
change	aar analysis	Enter digits between 0-9, 'x' or 'X' (dialed string) ['part' 1-8]
display	aar analysis	Enter digits between 0-9, 'x' or 'X' (dialed string) ['part' 1-8] ['print' or 'schedule']
list	aar analysis	[start dialed string] ['count' 1-2000] ['rp' 1-254 or r1-r32] ['part' 1-8] ['print' or 'schedule']
list	aar route chosen	Enter dialed number, ['partition' (1-8)], ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form.

- **Percent Full**— 3-character display-only field. Displays the percentage of the System's memory resources that have been utilized. A common pool of memory resources is shared between the ARS and AAR Analysis tables, the ARS and AAR Digit Conversion tables, and the Toll Analysis table.

If the Percent Full field display indicates that the System memory resources are in jeopardy of becoming full (that is, 100 percent) perform any of the following to “free-up” memory resources:

- Delete unnecessary entries from any of the shared resources tables

- Utilize RHNP tables for 8-digit ARS routing
- Reduce dialed string field entries to shortest possible length that accomplishes the desired function.
- **Partitioned Group Number**— When completing a paper form, enter the PGN to be associated with this table. Valid entries are 1 to 8 Default is "1."
- **Dialed String**— Enter the dialed string of significant digits. Up to 18 characters maximum consisting of the digits 0 through 9 are allowed. A wild card letter "x" or "X" may be used to substitute for any digit occurring in the string at the character position where used. Valid entries are 0 through 9, "x," "X," or leave blank. Default is blank.

Note that the user dialed digits are matched to the Dialed String field entry that most closely matches the dialed number (referred to as the "longest match"). For example, if a user dials 297-1234 and the AAS Analysis Table has Dialed String entries of 297-1 and 297-123, the match is on the 297-123 entry. In addition, an exact match is made on Dialed string entries of the same number of digits in cases where wild card characters (Xs) are used. For example, if 424 is dialed and the table has Dialed String entries of 424 and X24, the match is on the 424 entry.

As an example of Dialed String entries and associated Min and Max field entries (fields described below), RNxs 200 through 299 can be assigned on the AAR Analysis Table in either of the following ways:

Dialed String	Min. #of Digits	Max. #of Digits
2	7	7
	or	
20	7	7
21	7	7
22	7	7
...	...	...
29	7	7
	or	
2xx	7	7
	or	
20x	7	7
21x	7	7
22x	7	7
...	...	...
29x	7	7

- **Min**— Enter the minimum number of digits needed to validate and route the call. Valid entries are 0 through 17, or leave blank. Default is blank.
- **Max**— Enter the maximum number of digits that can be used to validate and route the call. Valid entries are 0 through 17, or leave blank. Default is blank.
- **Route Pat (Routing Pattern)**— Enter the routing pattern number (1 through 254) on a pointer to an associated RHNPA form (r1 through r32) to be used to route the call once all identifying digits have been received. Valid entries are 1 through 254, r1 through r32, or leave blank. Default is blank.
- **Call Type**— Valid call types areas follows (default is a blank field):

CALL TYPE	DESCRIPTION
aar	Regular aar call
ars	Crossover to ARS call
attd	Attendant (indicates that the call will be terminated locally to the attendant)
haar	Home ETN address (indicates that the call should be terminated locally on the home switch instead of routing to another ETN node. If the location code is deleted from the dialed number, then the remaining digits are used to route the call to a local extension.)
hatd	Indicates that the AAR call should be terminated locally to the attendant group.

Table 5-C provides a listing of the AAR Analysis default translations.

TABLE 5-C. AAR Analysis Default Translations

Dialed String	Total Digits		Route Pattern	Call Type
	Min.	Max.		
0	1	23		ars
1	4	23		ars
2	7	7	254	aar
3	7	7	254	aar
4	7	7	254	aar
5	7	7	254	aar
6	7	7	254	aar
7	7	7	254	aar
8	7	7	254	aar
9	7	7	254	aar
X11	3	3		ars

[illegible]

SCREEN 5-8. AAR Analysis Table Form

AAR Digit Conversion Table

Purpose

The AAR Digit Conversion Table form is used to convert private network numbers to other private network numbers. Its purpose is to steer some AAR calls to other switches in the private network or even to change the dialed digits to a public network number and eventually route the call via the ARS feature (by specifying the call type “ars” in the AAR Analysis table). Also, this feature can block or intercept certain private network calls to the attendant group.

The form allows for the replacement of all or part of a dialed digit string with a modified string. The modified string represents an alternative equivalent address and results in the call being routed according to the modified string. If the AAR Access Code is dialed, this table is accessed during call processing. Up to 300 entries in software can be shared between this table and the ARS Digit Conversion table.

The AAR Digit Conversion feature enhances the capabilities of the AAR feature so that outgoing public network calls and private network calls can be changed to private or public network destinations. The calls are then routed via the AAR feature.

Note that the Private Networking feature must be enabled on the System-Parameters Customer-Options form before associated forms and fields on forms can be administered.

Administration Commands

The following administration commands can be used to access the AAR Digit Conversion Table form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	aar digit-conversion	Enter digits between 0-9 'x' or 'X'
display	aar digit-conversion	Enter digits between 0-9 'x' or 'X' ['print' or 'schedule']
list	aar digit-conversion	Enter ['start' matching pattern] ['count' (1-300)] ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form.

Note that when the form is accessed via the display (change, etc.) command, the entries are sorted separately in the order of the matching pattern. Specific digits are sorted before the wild card character "x" or "X."

- **Percent Full**— 3-character display-only field. Displays the percentage of the System's memory resources that have been utilized. A common pool of memory resources is shared between the ARS and AAR Analysis tables, the ARS and AAR Digit Conversion tables, and the Toll Analysis table.

If the Percent Full field display indicated that the System memory resources are in jeopardy of becoming full (that is, 100 percent) perform any of the following to "free-up" memory resources:

- Delete unnecessary entries from any of the shared resources tables.
- Utilize RHNPA tables for 8-digit ARS routing.
- Reduce dialed string field entries to shortest possible length that accomplishes the desired function.

- **Matching Pattern**— Enter a 1-to 18-digit string to be matched against a dialed number. Matching Pattern entries must be unique within the table. The string may contain the digits 0 through 9 and wild card character "x" or "X" which is used to match any digit in the range of 1 through 9. If a Prefix Digit is required for 10-digit DDD numbers, then the Prefix Digit "1" must be present in the Matching Pattern string for the match to succeed.

If the associated Replacement String field has an entry, the Matching Pattern field must have an entry.

- **Replacement String**— Enter a 1- to 18-digit string which will replace the matched portion of the dialed number. The string may contain the digits 0 through 9, a # character, or be blank (that is, no entry). The # character, when used, must be at the end of the digit string and is used to signify end of dialing.

Note that a blank replacement string has the effect of just deleting the matched portion of the dialed digit string. The "#" character in the replacement string signifies the end of the modified digit string so that any digits dialed by the user after the matched portion of the string are ignored by the ARS/AAR features.

AAR Digit Conversion Table

Percent Full: _

Matching Pattern	Replacement String	Matching Pattern	Replacement String
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
-----	-----	-----	-----
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-----	-----	-----	-----
-----	-----	-----	-----

SCREEN 5-9. AAR Digit Conversion Table Form

Centralized Attendant Service

Allows services performed by attendants in a private network of switching systems to be concentrated at a central, or main, location. Each branch in a Centralized Attendant Service (CAS) has its own LDN or other type of access from the public network. Incoming trunk calls to the branch, as well as attendant-seeking voice terminal calls, are routed to the centralized attendants over RLTs.

The only network-type form that requires implementation in support of the CAS feature is the RLT Group form. The form and its associated instructions are provided in the Trunk Groups section of this chapter.

Refer to CAS in Chapter 4 for a complete listing of all System forms and/or fields on forms that must be completed or considered when implementing CAS. Forms such as the Attendant Console, Console Parameters, Feature Access Codes, etc., that support both networking and other functional areas such as voice and data management may also require implementation.

Note that the CAS (branch) or CAS (main) feature, as applicable, must be enabled on the System-Parameters Customer-Options form before the Centralized Attendant feature can be implemented.

Distributed Communications System (DCS)

Allows a Configuration (cluster) of two or more switches (nodes) to provide certain attendant and voice terminal features as if the cluster is a single large system. This simplifies dialing procedures between locations, and also allows transparent use of some of the System's features between locations.

The network-type forms that must be completed or considered when implementing DCS are:

- DS1 Circuit Pack
- Tie, Tandem, or ISDN-PRI Trunk Groups
- Routing Patterns

Refer to Distributed Communications System (DCS) in Chapter 4 for a complete listing of all System forms and/or fields on forms that must be completed or considered when implementing DCS. Forms such as the Dial Plan, Interface Links, etc., that support both networking and other functional areas such as voice and data management may also require implementation.

Note that the DCS option must be enabled on the System-Parameters Customer-Options form before DCS can be implemented.

An example of connecting three switches in a DCS configuration using voice tie trunks and DS1 signaling is shown in Figure 5-3. In this example, the switches are designated as Switch A, B, and C. Switch A is the master switch and switches B and C are slaves. Figure 5-3 also references the screen forms used to assign parameters for DCS signaling and voice tie trunks. These forms are provided as examples only. Detailed instructions for the various forms shown are provided in this Chapter and in Chapter 6. The example forms provided in this section show how to assign Switch A to communicate with Switches B and C. Switches B and C in turn must be configured to communicate with Switch A.

Figure 5-3 does not cover all DCS configurations. For example, System 75s, System 85s, and DIMENSION® PBXs may also be included in the network. This example is intended to show how the various screen forms can be used to implement DCS. The screen forms associated with this example do not show all the information that can be entered on the forms. The fields on the screen forms that can be completed for DCS have been filled in. The other fields that can be filled in depend on how the System is configured to meet your particular needs.

For detailed information on DCS, refer to *Network and Data Services Reference*, 555-025-201, and the *AT&T System 75 Application Notes—Distributed Communications System*, 555-209-003.

Completed System forms that are required to support the DCS configuration shown in Figure 5-3 are provided in Screens 5-10 through 5-33.

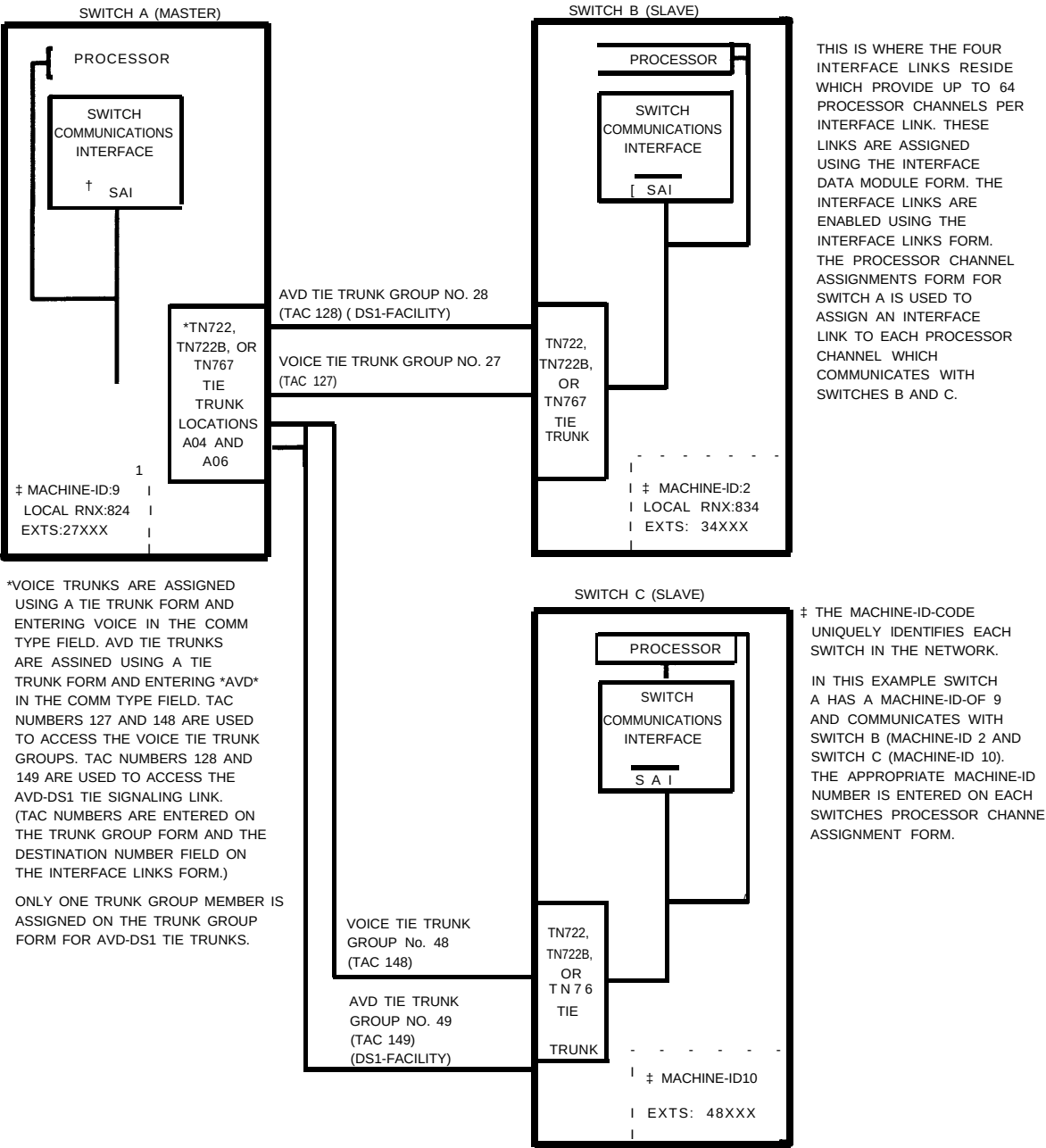


FIGURE 5-3. Distributed Communications System Using DS1 Facilities

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DIAL PLAN RECORD

Area Code: 201 Local PBX ID:

ARS Prefix 1 Required? y

Uniform Dialing Plan? y

FIRST DIGIT

First Digit	-1-	-2-	-3-	-4-	-5-	-6-
1			<u>tac</u>			
2					<u>extension</u>	
3					<u>extension</u>	
4					<u>extension</u>	
5					<u>extension</u>	
6						
7						
8						
9						
0	<u>attendant</u>					
1		<u>fac</u>				
#		<u>fac</u>				

SCREEN 5-10. Switch A Dial Plan Form (Page1)—Example Only

Page 2 of 6

UNIFORM DIALING PLAN

CODE	LCL	RNX	ID	CODE	LCL	RNX	ID	CODE	LCL	RNX	ID	CODE	LCL	RNX	ID
<u>27</u>	<u>y</u>	<u>824</u>	<u>9</u>	---	-	---	---	---	-	---	---	---	-	---	---
<u>34</u>	<u>n</u>	<u>834</u>	<u>2</u>	---	-	---	---	---	-	---	---	---	-	---	---
<u>48</u>	<u>n</u>	<u>848</u>	<u>10</u>	---	-	---	---	---	-	---	---	---	-	---	---

SCREEN 5-11. Switch A Dial Plan Form (Page 2)—Example Only

AAR Analysis Table

Partitioned Group Number: 1

Percent Full: _

Dialed String	Min	Max	Pat	Cal 1 Type	Dialed String	Min	Max	Pat	Call Type
<u>834</u>	<u>1</u>	<u>1</u>	<u>34</u>	<u>aar</u>	---	-	-	-	---
<u>848</u>	<u>1</u>	<u>1</u>	<u>48</u>	<u>aar</u>	---	-	-	-	---
---	-	-	-	-	---	-	-	-	---
---	-	-	-	-	---	-	-	-	---

SCREEN 5-12. Switch A AAR Analysis Form—Example Only

TRUNK GROUP		Page 1 of 9
Group Number: <u>27</u>	Group Type: <u>tie</u>	SMDR Reports? <u>y</u>
Group Name: <u>Tie to Switch B</u>	COR: <u>1</u>	TAC: <u>127</u>
Direction: two - way Outgoing Display? <u>n</u>		
Dial Access? <u>y</u>	Busy Threshold: <u>60</u>	Night Service: <u></u>
Queue Length: <u>0</u>	Incoming Destination: <u></u>	
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type (in/out): <u>wink/wink</u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: <u></u>	Digits: <u></u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DDD to DCO LOSS: <u>normal</u>
Incoming Dial Tone? <u>n</u>		
Answer Supervision Timeout? <u>10</u>		

SCREEN 5-13. Switch A DCS Voice Tie Trunk to Switch B—Example Only

Implementation Note:

“Group Number” assignments must be the same at the far-end node trunk group.

TRUNK GROUP

Page 2 of 9

TRUNK FEATURES

ACA Assignment ? y

Long Holding Time hours : 1

Short Holding Time sees. : 10

Short Holding Threshold: 15

Used for DCS? y

Suppress # Outpulsing? n

Measured? none

Internal Alert? n

Data Restriction? n

PBX ID 2

Maintenance Tests? y

SCREEN 5-14. Trunk Group Features—Example Only

GROUP MEMBER ASSIGNMENTS

Page 3 of 9

Port	Name	Night	Mode	Type	Ans Delay
Text	Text	Text	e&m	t1-Stan	20
2:					
3:					
4:					
5:					
6:					
7:					
8:					
9:					
10:					
11:					
12:					
13:					
14:					
15:					

SCREEN 5-15. Switch A DCS Voice Tie Trunk to Switch B—Example Only

Implementation Note:
“Group Member Assignments” must be the same at the far-end node trunk group.

```

                                TRUNK GROUP                                Page 1 of 9
Group Number: 48                Group Type: tie                SMDR Reports? y
Group Name: Tie to Switch C    COR: 1                TAC: 148
Direction: two-way    Outgoing Display? n
Dial Access? y                Busy Threshold: 60                Night Service:
Queue Length: 0                Incoming Destination: _
Comm Type: voice                Auth Code? n

TRUNK PARAMETERS
Trunk Type (in/out): wink/wink    Incoming Rotary Timeout(sec): 5
Outgoing Dial Type: tone                Incoming Dial Type: tone
                                           Disconnect Timing(msec): 500
                                           Digits: _
Digit Treatment: _
Connected to Toll? n    STT Loss: normal    DTT to DCO Loss: normal
Incoming Dial Tone? n
Answer Supervision Timeout? 10

```

SCREEN 5-16. Switch A DCS Voice Tie Trunk to Switch C—Example Only

Implementation Note:

“Group Number” assignments must be the same at the far-end node trunk group.

TRUNK FEATURES

ACA Assignment? y
Long Holding Time(hours): 1
Short Holding Time(secs.): 10
Short Holding Threshold: 15
Used for DCS? n
Suppress # Outpulsing? n

Measured? none
Internal Alert? n
Data Restriction? n
PBX ID: 10
Maintenance Tests? y

TRUNK GROUP

Page 2 of 9

SCREEN 5-17. Trunk Group Features—Example Only

GROUP MEMBER ASSIGNMENTS

PortNameNightModeTypeAns Delay

1: A040148XXXTextText20

2:

3:

4:

5:

6:

7:

8:

9:

10:

11:

12:

13:

14:

15:

Page 3 of 9

SCREEN 5-18. Switch A DCS Voice Tie Trunk to Switch C—Example Only

Implementation Note:
“Group Member Assignments” must be the same at the far-end node trunk group.

```

                                TRUNK GROUP                                Page 1 of 9
Group Number: 28                Group Type: tie                SMDR Reports? y
Group Name: DCS SIG to Switch B  COR: 1                TAC: 128
Direction: two-way  Outgoing Display? n
Dial Access? n                Busy Threshold: 60                Night Service: 27100
Queue Length: 0                Incoming Destination: 27100
Comm Type: avd                Auth Code? n
                                BCC: 0

TRUNK PARAMETERS
Trunk Type (in/OUT): wink/wink  Incoming Rotary Timeout(sec): 5
Outgoing Dial Type: tone                Incoming Dial Type: tone
                                Disconnect Timing(msec): 500
Digit Treatment:                           Digits: , -
Connected to Toll? n                STT Loss: normal                DTT to DCO Loss: normal
Incoming Dial Tone? n
Bit Rate: 1200                synchronization: async                Duplex: full
Answer Supervision Timeout? 10

```

SCREEN 5-19. Switch A DCS DS1 Signaling Trunk to Switch B—Example Only

Implementation Note:

It is suggested that "Group Number" assignments be the same at the far-end node trunk group.

TRUNK FEATURES ACA Assignment? <u>y</u> Long Holding Time(hours) : <u>1</u> Short Holding Time(secs.): <u>10</u> Short Holding Threshold: <u>15</u> Used for DCS? <u>n</u> Suppress # Outpulsing? <u>n</u>	TRUNK GROUP	Page 2 of 9 Measured? <u>none</u> Internal Alert? <u>n</u> Data Restriction? <u>n</u> PBX ID: <u>2</u> Maintenance Tests? <u>y</u>

SCREEN 5-20. Trunk Group Features—Example Only

GROUP MEMBER ASSIGNMENTS <table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">Port</th> <th style="text-align: left;">Name</th> <th style="text-align: left;">Night</th> <th style="text-align: left;">Mode</th> <th style="text-align: left;">Type</th> <th style="text-align: left;">Ans Delay</th> </tr> <tr> <td>1: <u>A0623</u></td> <td><u>DCS</u> <u>SIG</u></td> <td><u>-</u></td> <td><u>e&m</u></td> <td><u>t1-stan</u></td> <td><u>20</u></td> </tr> <tr><td>2: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>11: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>12: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>13: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>14: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>15: _____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> </table>	Port	Name	Night	Mode	Type	Ans Delay	1: <u>A0623</u>	<u>DCS</u> <u>SIG</u>	<u>-</u>	<u>e&m</u>	<u>t1-stan</u>	<u>20</u>	2: _____	_____	_____	_____	_____	_____	3: _____	_____	_____	_____	_____	_____	4: _____	_____	_____	_____	_____	_____	5: _____	_____	_____	_____	_____	_____	6: _____	_____	_____	_____	_____	_____	7: _____	_____	_____	_____	_____	_____	8: _____	_____	_____	_____	_____	_____	9: _____	_____	_____	_____	_____	_____	10: _____	_____	_____	_____	_____	_____	11: _____	_____	_____	_____	_____	_____	12: _____	_____	_____	_____	_____	_____	13: _____	_____	_____	_____	_____	_____	14: _____	_____	_____	_____	_____	_____	15: _____	_____	_____	_____	_____	_____	Page 3 of 9
Port	Name	Night	Mode	Type	Ans Delay																																																																																												
1: <u>A0623</u>	<u>DCS</u> <u>SIG</u>	<u>-</u>	<u>e&m</u>	<u>t1-stan</u>	<u>20</u>																																																																																												
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3: _____	_____	_____	_____	_____	_____																																																																																												
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6: _____	_____	_____	_____	_____	_____																																																																																												
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13: _____	_____	_____	_____	_____	_____																																																																																												
14: _____	_____	_____	_____	_____	_____																																																																																												
15: _____	_____	_____	_____	_____	_____																																																																																												

**SCREEN 5-21. Switch A DCS DS1 Signaling Trunk to Switch B—
Example Only**

Implementation Note:

"Group Member Assignments" must be the same at the far-end node trunk group.


```

                                TRUNK GROUP                                Page 1 of 9
Group Number: 49                Group Type: tie                SMDR Reports? y
Group Name: DCS SIG to Switch C_ COR : 1                TAC: 149
Direction: two-way                Outgoing Display? n
Dial Access? n                Busy Threshold: 60                Night Service: 27102
Queue Length: 0                Incoming Destination: 27102
Comm Type: avd                Auth Code? n
                                BCC: 0

TRUNK PARAMETERS
Trunk Type (in/out): wink/wink                Incoming Rotary Timeout(sec): 5
Outgoing Dial Type: tone                Incoming Dial Type: tone
                                Disconnect Timing(msec): 500
Digit Treatment:                Digits:
Connected to Toll? n                STT Loss: normal                DTT to DCO Loss: normal
Incoming Dial Tone? n
                                Bit Rate: 1200                synchronization: async                Duplex: full
Answer Supervision Timeout? 10

```

SCREEN 5-22. Switch A DCS DS1 Signaling Trunk to Switch C—Example Only

Implementation Note:

It is suggested that "Group Number" assignments be the same at the far-end node trunk group.

TRUNK FEATURES ACA Assignment? <u>y</u> Long Holding Time(hours) : <u>1</u> Short Holding Time(secs.): <u>10</u> Short Holding Threshold: <u>15</u> Used for DCS? <u>y</u> Suppress # Outpulsing? <u>n</u>	TRUNK GROUP	Page 2 of 9 Measured? <u>none</u> Internal Alert? <u>n</u> Data Restriction? <u>n</u> PBX ID: <u>10</u> Maintenance Tests? <u>y</u>

SCREEN 5-23. Trunk Group Features—Example Only

GROUP MEMBER ASSIGNMENTS <table border="0" style="width: 100%;"> <tr> <th style="width: 10%;">Port</th> <th style="width: 30%;">Name</th> <th style="width: 10%;">Night</th> <th style="width: 10%;">Mode</th> <th style="width: 10%;">Type</th> <th style="width: 10%;">Ans Delay</th> </tr> <tr> <td>1:</td> <td><u>A0423 DCS - SIG</u></td> <td><u> </u></td> <td><u>e&m</u></td> <td><u>f1-stan</u></td> <td><u>20</u></td> </tr> <tr><td>2:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>3:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td> </td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>5:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>6:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>7:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>8:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>9:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td> </td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>11:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>12:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td> </td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>14:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> <tr><td>15:</td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td></tr> </table>	Port	Name	Night	Mode	Type	Ans Delay	1:	<u>A0423 DCS - SIG</u>	<u> </u>	<u>e&m</u>	<u>f1-stan</u>	<u>20</u>	2:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	3:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	5:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	6:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	7:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	8:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	9:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	11:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	12:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	14:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	15:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Page 3 of 9
Port	Name	Night	Mode	Type	Ans Delay																																																																																												
1:	<u>A0423 DCS - SIG</u>	<u> </u>	<u>e&m</u>	<u>f1-stan</u>	<u>20</u>																																																																																												
2:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>																																																																																												
3:	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>																																																																																												
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SCREEN 5-24. Switch A DCS DS1 Signaling Trunk to Switch C—Example Only

Implementation Note:

"Group Member Assignments" must be the same at the far-end trunk group.

Page 1 of 1

Pattern Number: 34

Pattern Assignments (Enter Up To 6)

	Grp . No.	FRL	NPA	Prefix Mark	Toll List	No. Del Digits	Inserted Digits
1.	<u>27</u>	<u>1</u>	___	___	___	<u>3</u>	<u>3</u> _____

SCREEN 5-25. Switch A Routing Pattern to Switch B—Example Only

Page 1 of 1

Pattern Number: 48

Pattern Assignments (Enter Up To 6)

	Grp . No.	FRL	NPA	Prefix Mark	Toll List	No. Del Digits	Inserted Digits
1.	<u>48</u>	<u>1</u>	___	___	___	<u>3</u>	<u>4</u> _____

SCREEN 5-26. Switch A Routing Pattern to Switch C—Example Only

Page 1 of 1

DS1 CIRCUIT PACK

Location: <u>A06</u>	Name: <u>DCS TO SWITCH B</u>
Line Compensation: <u>1</u>	Zero Code Suppression: <u>b8zs</u>
Framing Mode: <u>esf</u>	Signaling Mode: <u>common-chan</u>
DMI-BOS? <u>n</u>	

MAINTENANCE PARAMETERS

Slip Detection? <u>y</u>	Remote Loop-Around Test? <u>n</u>

SCREEN 5-27. Switch A DS1 Circuit Pack—Example Only

Page 1 of 1

DS1 CIRCUIT PACK

Location: <u>A04</u>	Name: <u>DCS TO SWITCH C</u>
Line Compensation: <u>1</u>	Zero Code Suppression: <u>zcs</u>
Framing Mode: <u>esf</u>	Signaling Mode: <u>common-chan</u>
DMI-BOS? <u>n</u>	

MAINTENANCE PARAMETERS

Slip Detection? <u>y</u>	Remote Loop-Around Test? <u>n</u>

SCREEN 5-28. Switch A DS1 Circuit Pack Administration Form for Circuit Packs in Location A06 and A04—Example Only

Page 1 of 2

SYNCHRONIZATION PLAN

SYNCHRONIZATION SOURCE (DS1 circuit pack location)

Primary: _ Secondary: _

DS1 CIRCUIT PACKS

Location	Name	Slip	Location	Name	Slip
<u>A06</u>	<u>DCS TO SWITCH B n</u>	<u>-</u>	<u> </u>	<u> </u>	<u>-</u>
<u>A04</u>	<u>DCS TO SWITCH C n</u>	<u>-</u>	<u> </u>	<u> </u>	<u>-</u>

SCREEN 5-29. Switch A Synchronization Plan Form for DS1 Circuit Packs A06 and A04—Example Only

Page 1 of 1

DATA MODULE

Data Extension: 27100 Type: interface Physical Channel: 01

Name: DCS-LINK TO Cos: _ COR: _
SWITCH B

ABBREVIATED DIALING

List1: _____

SCREEN 5-30. Switch A Processor Interface Data Module Form Used To Assign Interface Link 1—Example Only

Page 1 of 1

DATA MODULE

Data Extension: 27102

Type: interface

Physical Channel: 03

Name: DCS-LINK TO
SWITCH C

COS:

COR:

SCREEN 5-31. Switch A Processor Interface Data Module Form Used to Assign Interface Link 3—Example Only

Page 1 of 1

INTERFACE LINKS

Link	Enable	Est Conn	PI Ext	Prot	Destination Digits	Brd	DTE/ DCE	Identification
1:	<u>y</u>	<u>y</u>	<u>27100</u>	<u>BX.25</u>	<u>128</u>	<u> </u>	<u>DTE</u>	<u>DCS Link Switch B</u>
2:	<u>n</u>	<u> </u>	<u> </u>	<u>BX.25</u>	<u> </u>	<u> </u>	<u>DTE</u>	<u> </u>
3:	<u>y</u>	<u>y</u>	<u>27102</u>	<u>BX.25</u>	<u>149</u>	<u> </u>	<u>DTE</u>	<u>DCS Link Switch C</u>
4:	<u>n</u>	<u> </u>	<u> </u>	<u>BX.25</u>	<u> </u>	<u> </u>	<u>DTE</u>	<u> </u>
5:	<u>n</u>	<u> </u>	<u> </u>	<u>BX.25</u>	<u> </u>	<u> </u>	<u>DTE</u>	<u> </u>
6:	<u>n</u>	<u> </u>	<u> </u>	<u>BX.25</u>	<u> </u>	<u> </u>	<u>DTE</u>	<u> </u>
7:	<u>n</u>	<u> </u>	<u> </u>	<u>BX.25</u>	<u> </u>	<u> </u>	<u>DTE</u>	<u> </u>
8:	<u>n</u>	<u> </u>	<u> </u>	<u>BX.25</u>	<u> </u>	<u> </u>	<u>DTE</u>	<u> </u>

SCREEN 5-32. Switch A Interface Links Form—Example Only

Page 1 of 4

PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Appl.	Interface Link	Chan	Priority	Remote Proc Chan	Machine-ID
1:	_____	-	_____	_____	_____	_____
2:	_____	-	_____	_____	_____	_____
3:	_____	-	_____	_____	_____	_____
4:	_____	-	_____	_____	_____	_____
5:	_____	-	_____	_____	_____	_____
6:	DCS	<u>1</u>	<u>28</u>	<u>h</u>	<u>6</u>	<u>2</u>
7:	DCS	<u>3</u>	<u>49</u>	<u>h</u>	<u>7</u>	<u>10</u>
8:	_____	-	_____	_____	_____	_____
9:	_____	-	_____	_____	_____	_____
10:	_____	-	_____	_____	_____	_____
11:	_____	-	_____	_____	_____	_____
12:	_____	-	_____	_____	_____	_____
13:	_____	-	_____	_____	_____	_____
14:	_____	-	_____	_____	_____	_____
15:	_____	-	_____	_____	_____	_____
16:	_____	-	_____	_____	_____	_____

SCREEN 5-33. Switch A Processor Channel Assignments for Interface Links 1 and 3—
Example Only

DS1 Trunk Service

Introduction

DS1 Trunk Service provides a set of digital trunks utilizing the DS1 circuit pack [TN722B, TN767, (or TN464C for International G1.2SE only)] that support both voice and data communications.

Digital interfaces for the following types of trunks are supported:

- Alternate Voice/Data (AVD) DS1 Tie Trunks
- CO Trunks
- DMI Tie Trunks
- DID Trunks
- Direct Inward and Outward Dialing Trunks (International G1.2SE only)
- FX Trunks
- ISDN-PRI Trunks
- Off-Premises Stations
- Remote Access Trunks
- Voice-Grade DS1 Tie Trunks
- WATS Trunks

Refer to Chapter 4 for a complete listing of all forms that must be completed or considered when assigning DS1 Tie Trunk Service. The DS1 circuit pack form instructions are provided following this introduction.

The following paragraphs provide a brief description of each of the types of trunks supported by the DS1 digital interface.

Alternate Voice/Data (AVD) Tie Trunks

AVD DS1 tie trunks permit alternate voice and data calling between DEFINITY systems, System 75s, and System 85s.

AVD DS1 tie trunks can be used to connect the System with other digital switches.

The TN722B, TN767, or TN464C (International G1.2SE only) DS1 circuit pack is used to support AVD DS1 tie trunks in the Common Channel Signaling mode. The Common Channel Signaling mode supports 23 trunks for data transmission and 1 trunk for signaling purposes.

This type of tie trunk uses DS1 transmission facilities in the "Domestic DS1" format, which is a 1.544-Mbps digital signal that consists of a 1.536-Mbps signal multiplexed with an 8-kbps framing signal.

CO, FX, and WATS Trunks

When the DS1 interface (TN767 DS1 circuit pack) is used to provide CO, FX, or WATS trunk group service with incoming and outgoing types of ground start or loop start, RBS must be used.

When the DS1 interface is used to provide CO, FX, or WATS trunk group service with incoming outgoing dial types administered as auto/auto, auto/delay, auto-immediate, or auto/wink, either Common Channel Signaling or Robbed Bit Signaling can be used.

When the DS1 interface is used to provide CO, FX, or WATS trunk group service with incoming and outgoing types of ground start or loop start, outgoing trunk calls do not receive answer supervision. Instead, the answer supervision is faked by the DS1 circuit pack.

DMI Tie Trunks

DMI tie trunks use Bit Oriented Signaling or ISDN-PRI signaling to interface with a host computer, another PBX, or a public or private network.

In addition, the TN767 DS1 circuit pack supports DMI tie trunks in the ISDN-PRI signaling mode. This mode supports 23 trunks for data transmission and one trunk for signaling purposes.

This type of tie trunk uses DS1 transmission facilities in the "Domestic DS1" format, which is a 1.544-Mbps digital signal that consists of a 1.536-Mbps signal multiplexed with an 8-kbps framing signal.

When the DS1 circuit pack is assigned ISDN-PRI signaling, RBS and ISDN-PRI signaling can be used over the same DS1 interface. Trunk groups administered with a communication type of "voice" can use RBS and trunk groups administered with a communication type of "isdn" can use the ISDN-PRI signaling.

DID Trunks

When the DS1 interface is used to provide DID trunk group service, RBS must be used.

ISDN-PRI Trunks

When the DS1 interface is used to provide ISDN-PRI trunk group service, a TN767 DS1 circuit pack must be used. ISDN-PRI trunks provide end-to-end digital connectivity within the network and can provide national and international digital connectivity to other ISDNs that support the PRI standard.

ISDN-PRI trunks can carry calls for various switched services and/or features such as Megacom 800 service, Megacom service, OUTWATS, and LDS (Long-Distance Service). Inter-exchange carrier calls may also be processed. The trunks support integrated voice and data transmission.

A TN767 DS1 circuit pack utilizing "isdn-pri" signaling must be used when supporting ISDN-PRI trunks. This mode of signaling supports 23 trunks for data transmission and one trunk for signaling. Choosing "isdn-ext" enables the circuit pack to use ISDN signaling, but the 24th channel will not be used as a D-Channel (that is, all 24 channels used for voice and/or data).

Off-Premises Stations

DS1 off-premises stations do not receive System message waiting indications.

When the DS1 interface is used to provide off-premises stations, RBS must be used.

Remote Access Trunks

Signaling for remote access trunks depends on the trunk group and incoming/outgoing dial types.

Voice-Grade DS1 Tie Trunks

The Voice-Grade DS1 tie trunks are an alternative to 4-wire analog E&M tie trunks and may be used to interface with other properly-equipped switching systems.

Voice-Grade DS1 tie trunks can also be used as the following:

- ETN or TTTN tie trunks
- Main/Satellite tie trunks
- Tie trunks used to interface with Enhanced Private Switched Communications Service (EPSCS) and Common Control Switching Arrangement (CCSA) networks
- Release link trunks for CAS
- Access Trunks

The TN722B, TN767, or TN464C (International G1.2SE only) DS1 circuit pack is used to support Voice-Grade DS1 tie trunks in the RBS mode. The RBS mode supports 24 trunks for transmission on the circuit pack because the least significant bit ("robbed") in every sixth frame of data transmission is replaced by a signaling bit.

This type of tie trunk uses DS1 transmission facilities in the "Domestic DS1" format, which is a 1.544-Mbps digital signal that consists of a 1.536-Mbps signal multiplexed with an 8-kbps framing signal.

DS1 Circuit Pack

Purpose

This form is used to administer parameters for the TN722, TN722B, TN767, and TN464C (international G1.2SE only) DS1 circuit packs. If the circuit pack has not been physically installed, it must be logically installed using the Circuit Pack Administration form before the parameters on this form can be administered.

The DS1 circuit pack provides a DS1 format (digital data rate of 1.544 Mbps), digital, multi-channel interface between the System and T1 transmission facilities, or it may be directly connected to local DS1 terminal equipment (if the distance is relatively short—that is, less than a quarter of a mile) which includes a DS1 interface to another switch, a D4 channel bank, a channel division multiplexer, or a channel expansion multiplexer. On the switch side, the DS1 interface provides 23 unrestricted (voice or 64-kbps data) or 24 restricted (voice) digital trunks depending on signaling mode. When configured for 64-kbps data, these trunks support voice and data communication including AVD, DMI, and ISDN-PRI services.

The TN722B must be used instead of a TN722 when supporting DMI-Bit Oriented Signaling. A TN767 must be used for ISDN-PRI and can also support CO, DID, and Off-Premises Station signaling, when required.

After DS1 circuit pack parameters have been administered, the following must also be considered:

- Signaling Groups must be assigned using the Signaling Group form.
- Individual trunks must be assigned using appropriate trunk group forms.
- Parameters that govern automatic control of clock synchronization may be administered using the Synchronization Plan form for those DS1 circuit packs that are to be primary or secondary synchronization sources.
- For ISDN-PRI signaling, the link between the TN765 Processor Interface and the D Channel of the DS1 circuit pack must be administered using the Processor Interface Data Module, Processor Channel Assignments, and Interface Links forms.

Administration Commands

The following administration commands can be used to access the DS1 Circuit Pack form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	ds1	[P]Css†
change	ds1	[P]Css(board)
display	ds1	[P]Css
list	measurements ds1	location
list	measurements ds1-log	location
remove	ds1	[P]Css

* Brackets [] indicate the qualifier is optional.

† [P] — part of qualifier representing pnn

C — part of qualifier representing carrier (A through F)

ss — part of qualifier representing slot number (01 through 20).

Form Instructions

Make assignments as required for the following fields on the form:

- **Location**— This is a display-only field when the form is accessed using an administration command such as **add** or **change**. Enter the DS1 Interface circuit pack port location when completing a paper form. Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets [depending on carrier type] or 01 through 18 for single-carrier cabinets [depending on cabinet type]); the last two characters identify the circuit number (01 through 24). The location should also be identified for record purposes on the Port Assignment Record and the Circuit Pack Administration form as described in Chapter 2.
- **Name**— Enter the name of the DS1 link (limit 15 characters). Typically, this is the destination of the link.
- **Line Compensation**— Enter a number from 1 through 5 as follows (default is "1"):
 - For 22-gauge ABAM cable terminated on a DSX-1 cross-connect:

Compensation	Length (feet)
1	000-133
2	133-266
3	266-399
4	399-533
5	533-655

- For 22-gauge ABAM cable terminated on DS1 terminal equipment such as a D4 Channel Bank or another System:

Compensation	Length (feet)
1	0000-0266
2	0266-0532
3	0532-0798
4	0798-1066
5	1066-1310

- **Zero Code Suppression**— Enter "b8zs" (bipolar eight zero substitution) or "zcs" (0 code suppression). This method must match the method used on the other end of the link. This entry indicates which line coding format will be used to ensure that the data meets T1-carrier requirements. When the DS1 circuit pack is used for ISDN, the ISDN D-Channel data is inverted when "zcs" is entered and not inverted when "b8zs" is used. Far-end System 85 Generic 2 system and 4ESS switch administer whether or not the the D-Channel data will be inverted.

Binary eight zero code suppression (b8zs) is an alternate line coding technique which uses a bipolar violation to ensure adequate "ones" density in a bit sequence. Eight zeros in an 8-bit sequence triggers the bipolar violation.

Zero code suppression (zcs) is a line coding method that checks for all zeros in an 8-bit time slot and, if all zeros exist, bit two is changed from a 0 to a 1. This method of line coding ensures adequate timing recovery of regenerative 56-kbps or less digital facilities.

- **Framing Mode**— Enter "d4" or "esf" (default is "esf"). This mode must match the method used on the other end of the link. The network diagram should indicate which choice for the particular DS1/T1-span. D4 is a framing format of 12 frames for analog representation on T1 carrier using DS1 signals. ESF is an extended frame format on T1 carrier using DS1 signals in which 24 frames are used to convey signaling for the channels.
- **Signaling Mode**— Enter "common-chan," "robbed-bit," "isdn-pri," or "isdn-ext"(default is "common-chan"). This mode must match the method used on the other end of the link.

Common Channel Signaling (common-chan) is an industry standard signaling technique in which the signals on one facility control the operation of several facilities. When applied to DS1 operation, it is a signaling technique in which any one of the 24 channels carries the signals for the other 23 channels. AT&T implementation of common channel signaling uses the 24th channel for carrying the signals. This signaling technique is a much broader concept than 24th channel signaling and is not limited to DS1 facilities. When the System is configured for FAS, the 24th channel signaling technique uses the 24th channel in a DS1 facility to carry signals for the remaining 23 channels; also known as "clear channel," "out-of-band," or AVD signaling. (AVD signaling is a term that is often used; however, the term is incorrectly used. AVD is a term used when referring to a trunk group that can be used for both voice and digital applications.)

RBS (robbed-bit) is a per-channel signaling technique for transmitting signaling bits within each band on each of the 24 channels in a DS1 facility. The least significant bit in every sixth transmitted information frame is "robbed" and replaced by a signaling bit. Also called "in-band" signaling. For voice tie trunks, enter "robbed-bit" and "common-chan" for Alternate Voice Data (AVD) trunks.

The choice of isdn-pri requires that the TN767 DS1 Interface circuit pack be used. This choice will enable ISDN-PRI signaling to be carried over the 24th channel of the DS1 interface, and will cause the DMI-BOS field not to be displayed and the Connect field to be displayed on the form.

The choice of "isdn-ext" also requires use of the TN767 DS1 Interface circuit pack. This choice will enable the TN767 to use ISDN signaling, but the 24th channel will not be used as a D channel. When the System is configured for Non-Facility Associated Signaling, all 24 channels on a DS1 facility may be used for voice and/or data. The signaling for these channels is provided by the 24th channel on another DS1 facility. The System may be configured for Facility and Non-Facility Associated Signaling at the same time. Refer to the Facility and Non-Facility Associated Signaling feature in Chapter 4 for additional information.

- **DMI-BOS**— Enter "y" (System default) to activate the Digital Multiplexed Interface-Bit Oriented Signaling (DMI/BOS) mode when the signaling mode is common-channel and a TN722B or TN767 circuit pack has been installed. Valid entries are "y" or "n." This field is not displayed if "isdn-pri" or "isdn-ext" is entered in the Signaling Mode field.

DMI/BOS is a 24th channel signaling scheme using a DS1 facility which uses 23 message channels and one signaling channel (24th). DMI/BOS has greater capacity (ability to carry 64 kbps channels) than the 24th channel RBS scheme. Entering "n" indicates the DS1 will provide the AT&T proprietary format; "y" indicates the DS1/DMI interface will provide the DMI format.

- **Connect**— Only displayed when the Signaling Mode field is "isdn-pri." Specify what is on the far end of the PBX in order to control Layer 3 protocol properly. The default value for this field is "network." This field is displayed when the Signaling Mode field is "isdn-pri." If "pbx" is entered, the Interface field is displayed. Allowable entries are "network" (System default), "host," and "pbx."
- **Interface**— Only displayed when the Connect field is "pbx." Specify whether the PBX corresponds to the "network" or "user" side of the interface, which is needed for the Layer 2 protocol and is also used at Layer 3 to handle glare conditions. For other cases, the required entry is inferred from the Connect field entry: a "host" connection implies a "network" interface, and a "network" connection implies a "user" interface. Note that when the far-end is a DEFINITY Generic 1 or Generic 3i system, the Interface field on one end of the connection must be "user" and the other end must be translated as "network." Valid entries are "network" or "user" (System default).
- **Slip Detection**— Enter "y" to enable the slip-rate status of this circuit pack to be used by maintenance software to determine whether an excessive frame slip rate exists. Enter "n" (System default) when DMI is used or when testing is not required.

Note: Those DS1/T1 facilities that are used to provide the primary and secondary synchronization references should be administered for slip detection "y." Typically, those other DS1/T1 spans that are used for data applications and which are deemed very important should also be administered for slip detection. This excludes all T1-spans connecting channel banks, unless the channel bank is externally timed. Normally, those DS1/T1 spans that are used exclusively for voice and which are not designed as the primary or secondary synchronization source should be administered for slip detection "y." Refer to the network synchronization diagram in order to determine which option to choose.

The digital switch maintains a slip count record for each DS1 interface. The slip count is used to determine if the T1-span is experiencing errors and, if so, the severity of the errors (type alarm). Option "y" enables switching between the primary, secondary, or internal high-accuracy clock.

Note: If as many as 50 percent of those spans that are administered for slip detection are experiencing slips (with respect to the primary), then a decision is made to switch to the secondary.

- **Remote Loop-Around Test**— Enter "y" to allow testing or "n" to deny testing. This test is not possible unless the DS1 is connected to appropriate equipment such as a DSX-1 cross-connect or a DMI interface. The response should be "n" (System default) unless the testing is extremely important.

Page 1 of 1

DS1 CIRCUIT PACK

Location: _

Name: _____

Line Compensation: 1

Zero Code Suppression: zcs

Framing Mode: esf

Signaling Mode: common-chan

DMI-BOS? y

MAINTENANCE PARAMETERS

Slip Detection? n

Remote Loop-Around Test? n

SCREEN 5-34. DS1 Circuit Pack Form (System Defaults)

Page 1 of 1

DS1 CIRCUIT PACK

Location: _	Name: _____
Line Compensation: <u>1</u>	Zero Code Suppression: <u>zcs</u>
Framing Mode: <u>esf</u>	Signaling Mode: <u>isdn-pri</u>
	Connect: <u>pbx</u>
	Interface: <u>user</u>

MAINTENANCE PARAMETERS

Slip Detection? <u>n</u>	Remote Loop-Around Test? <u>n</u>

SCREEN 5-35. DS1 Circuit Pack Form (Signaling Mode field is "isdn-pri" and the Connect field is "pbx")—Example Only

Page 1 of 1

DS1 CIRCUIT PACK

Location: _	Name: _____
Line Compensation: <u>1</u>	Zero Code Suppression: <u>zcs</u>
Framing Mode: <u>esf</u>	Signaling Mode: <u>isdn-ext</u>

MAINTENANCE PARAMETERS

Slip Detection? <u>n</u>	Remote Loop-Around Test? <u>n</u>

**SCREENS 5-36. DS1 Circuit Pack Form (Signaling Mode field is "isdn-ext")
—Example Only**

Integrated Services Digital Network—Primary Rate Interface

This section contains the network-type forms and associated instructions required to implement the Integrated Services Digital Network (ISDN)—Primary Rate Interface (PRI) feature.

Refer to "Integrated Services Digital Network—Primary Rate Interface" in Chapter 4 for a complete listing of all forms and/or fields on forms that must be completed or considered when implementing ISDN-PRI. Forms such as the Dial Plan, COR, and Feature-Related System Parameters that support both networking and other functional areas such as voice and data management may also require implementation.

ISDN-PRI provides end-to-end digital connectivity within the network and can provide national and international digital connectivity to other ISDNs that support the PRI standard.

An ISDN-PRI trunk group can carry calls for various switched services and/or features such as Megacom 800 service, Megacom service, OUTWATS, and LDS. Inter-exchange carrier calls may also be processed. The trunk group utilizes common channel signaling and integrated voice and data transmission.

The ISDN-PRI feature supports the following (refer to each feature description in Chapter 4 for a complete listing of forms to be administered to implement the feature):

- Call by Call Service Selection feature
- Distributed Communications System connectivity
- ETN connectivity.
- Generalized Route Selection feature
- ISDN Call Identification Display—CPN/BN
- Administered Connection/Access Endpoint feature (supports administered connections over a SDDN)
- Interworking (mixture of ISDN-PRI and non-ISDN-PRI trunking).
- FAS/NFAS

The following ISDN-PRI forms are provided in this section.

Note: The ISDN-PRI option must be enabled on the System-Parameters Customer-Options form before associated ISDN forms can be administered.

- ISDN-PRI Trunk Group
- Network Facilities (supports the Call by Call Service Selection feature)
- CPN Prefix Table (used by the ISDN Call Identification Display feature)
- Signaling Group (group of B-channels for which a given D-channel or D-channel pair will carry the signaling information)

Integrated Services Digital Network—Primary Rate Interface Trunk Group

Refer to Integrated Services Digital Network—Primary Rate Interface Trunk Group (provided later in this chapter in the Trunk Group section) for implementation instructions.

Network Facilities

Purpose

This form is a display-only form of the Network Facilities Services/Features that support the Call by Call Service Selection feature. All administration on this form is performed by the TSC.

Administration Commands

The following administration commands can be used to access the Network Facilities form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command. Note that the "change" command is only available for services personnel via entry of an appropriate login and password.

Action	Object	Qualifier
change	isdn network facilities	
display	isdn network facilities	

Predefine Services/Features (see Table 5-D) and 12 fields for new Services/Features are shown on the form.

TABLE 5-D. Predefine Services/Features—Network Facilities

SERVICE/FEATURE	
Administration Mnemonic	Description
accunet	ACCUNET Switched Digital Service—part of ACI (AT&T Communications ISDN) phase 2.
i800	International 800 Service—allows a subscriber to receive international calls without a charge to the call originating party.
inwats	INWATS—provides OUTWATS-like pricing and service for incoming calls.
lds	Long-Distance Service—part of ACI (AT&T Communications ISDN) phase 2.
outwats-bnd	OUTWATS Band-WATS—is a voice-grade service providing both voice and low speed data transmission capabilities from the user's location to defined service areas commonly referred to as bands. Currently, the widest band is 5.
megacom	Megacom service—an AT&T communications service that provides unhandled long-distance services using special access (PBX to 4ESS switch) from an AT&T communications node.
megacom-800	Megacom 800 service—an AT&T communications service that provides unhandled 800 service using special access (4ESS switch to PBX) from an AT&T communications node.
multiquest	AT&T MULTIQUEST® Telecommunications Service—dial 700 service. A terminating users service supporting interactive voice service between callers at switched access locations and service providers directly connected to the AT&T Switched Network (ASN).
operator	Network Operator—provides access to the network operator.
sdn	Software Defined Network (SDN)—an AT&T communications offering that provides a virtual public network using the public switched network. SDN can carry voice and data between customer locations as well as off-net locations.
sddn	Software Defined Data Network—provides a virtual private line connectivity via the AT&T switched network (4ESS switch). Services include voice, data, and video applications. These services complement the SDN service.
sub-operator	Presubscribed Common Carrier Operator—provides access to the presubscribed common carrier operator.
wats-max-bnd	Maximum Banded Wats—a WATS-like offering for which a user's calls are billed at the highest WATS band subscribed to by the user.

The fields on the form areas follows:

- **Name**— Contains up to 15 alphanumeric characters to specify the name of the indicated Service/Feature.
- **Facility Type**— A "0" indicates that the associated entry is a feature, and a "1" indicates the associated entry is a service.
- **Facility Coding**— Contains five binary values which specify the ISDN-PRI encoding value of the associated Service/Feature.

The additional Services/Features area on the form is available for new services and features.

NETWORK-FACILITIES					
Predefined Services/Features					
Name	Facility Type	Coding	Name	Facility Type	Coding
<u>outwats-bnd</u>	1	0 0 0 0 1	<u>mega800</u>	1	0 0 0 1 0
<u>operator</u>	0	0 0 1 0 1	<u>megacom</u>	1	0 0 0 1 1
<u>sub-operator</u>	0	0 0 1 1 0	<u>inwats</u>	1	0 0 1 0 0
<u>sdn</u>	1	0 0 0 0 1	<u>wats-max-bnd</u>	1	0 0 1 0 1
<u>accunet</u>	1	0 0 1 1 0	<u>lds</u>	1	0 0 1 1 1
<u>i800</u>	1	0 1 0 0 0	<u>multiquest</u>	1	1 0 0 0 0
Additional Services/Features					
Name	Facility Type	Coding	Name	Facility Type	Coding
_____	_____	_____	_____	-	-
_____	_____	_____	_____	-	-
_____	_____	_____	_____	-	-
_____	_____	_____	_____	-	-
_____	_____	_____	_____	-	-
_____	_____	_____	_____	-	-

SCREEN 5-37. Network Facilities Form

CPN Prefix Table

Purpose

This form is used to support the ISDN Call Identification Display feature. The feature provides a name/number display for display-equipped stations within an ISDN-PRI network. The System uses the calling party's name/number information and displays it on the called party's display, if provided. Likewise, the called party's name/number can be displayed on the calling party's display.

The ISDN-PRI option must be enabled on the System-Parameters Customer-Options form before this form can be administered.

The CPN (Calling Party Number) Prefix Table provides the following:

- Allows the calling party's number to be displayed on the called party's display and the connected party's number to be displayed at the calling party's display. The information display may be disabled for privacy reasons.
- Allows a 10-digit CPN number to be displayed instead of the calling party's number.
- Allows up to 240 entries with a maximum of 48 entries on a page.

Administration Commands

The following administration commands can be used to access the CPN Prefix form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action Object Qualifier

change	isdn	cpn-prefix
display	isdn	cpn-prefix

Form Instructions

Make assignments as required for the following fields on each page of the form.

Pages 1 through 5 of the Form

- **Ext Len**— Specifies the number of digits the extension can have. Enter a number from 1 to 5 that corresponds to the extension lengths allowed by the dial plan.
- **Ext Code**— Allows for groups of extensions to be administered. The Ext Code can be up to 5 digits long depending on the Ext Len field entry. The entry cannot be greater than the Ext Len field entry. For example, in the case of a 4-digit Ext Len field entry, an Ext Code of 12 is the equivalent of all extensions of the form 12xx, excluding any explicitly listed longer codes. If a code of 123 is also listed, the 12 code is equivalent of all extensions of the form 12xx except extensions of the form 123x. The coding precludes having to list all the applicable 12xx extensions. Valid digits are 0 through 9. Note that when "0" alone is entered, the Ext Len field must be "1" and the DDD number must be 10-digits long.

Signaling Group

Purpose

The Signaling Group form is used to identify groups of ISDN DS1 interface B-Channels for which a given D-Channel or D-Channel pair will carry associated signaling information. The NFAS feature allows a D-Channel to convey signaling information for B-Channels that are located on DS1 facilities other than the one containing the D-Channel. With NFAS, a signaling group does not necessarily correspond to a single DS1 interface. The Signaling Group form is administered to show how B-Channels and D-Channels are related.

The Signaling Group form also supports the FAS feature. The form is used to establish the fact that a D-Channel will carry signaling information for all B-Channels on its associated DS1 interface and for no others.

In addition, the form is used to administer TSC used in support of DCS Over ISDN PRI D-Channel (includes ISDN-PRI D-Channel DCS AUDIX.)

Administration Commands

The following administration commands can be used to access the Signaling Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	signaling-group	1-8 or next
change	signaling-group	1-8
display	signaling-group	1-8 ['print' or 'schedule']
list	signaling-group	1-8 ['print' or 'schedule']
remove	signaling-group	1-8

* Brackets [] means that the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

- **Group Number**— Display-only field when the form is accessed using an administration command such as display or change. Enter a group number from 1 through 8 when completing a paper form.
- **Associated Signaling**— Enter "y" (yes) to indicate FAS or "n" (no) to indicate NFAS. (As stated earlier, for FAS, the D-Channel can only carry signaling information for B-Channels located on the same DS1 circuit pack.) Default is "y."
- **Primary D-Channel**— Enter a 5-to 6-character port number associated with the DS1 Interface circuit pack port: port network 1 through 3 (default is "1" if no entry); carrier (A through E); slot number (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single carrier cabinets depending on cabinet type); port (24). The port number 24 is used to assign the primary D-Channel in the Signaling Group. Currently, with FAS and NFAS it is always the 24th port on the DS1 Interface circuit

pack. It is recommended that the Primary D-Channel assignment, when possible, be located on the PPN (that is, Port Network 1). Default is blank.

- **Secondary D-Channel**— Only displayed if the Associated Signaling field is "n" (indicates NFAS). Enter a 5- to 6-character port number associated with the DS1 Interface port used for secondary D-Channel signaling: port network 1 through 3 (default is "1" if no entry); carrier (A through E); slot number (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single carrier cabinets depending on cabinet type); port (24) (currently, with FAS and NFAS it is always the 24th port on the DS1 Interface circuit pack). Default is blank.
- **Max Number of NCA TSC**— Used to specify the maximum number of simultaneous NCA-TSCs that can exist in the Signaling Group. This number includes all NCA-TSCs that are administered on Pages 2 through 5 of the form and those NCA-TSCs that tandem through the switch in-route to another switch in the network. Valid entries are 0 through 256. Default is "0."
- **Max number of CA TSC**— Used to specify the maximum number of simultaneous CA-TSCs that can exist in the Signaling Group. Typically the number of ISDN-PRI trunk group members controlled by the Signaling Group. Valid entries are 0 through 400. Default is "0."
- **Trunk Group For NCA TSC**— Used to specify the ISDN-PRI trunk group number whose incoming call handling table will be used to handle incoming NCA-TSCs through the signaling group. Enter the assigned ISDN-PRI trunk group number whose call handling table will be used to route the incoming NCA TSCs. Valid entries are 1 through 99. Default is blank.
- **Trunk Brd**— Only displayed if the Associated Signaling field is "n" (indicates NFAS). Enter a 4-character DS1 Interface circuit pack number that has trunk members belonging to this Signaling Group: port network 1 through 3 (default is "1" if no entry); carrier (A through E); slot number (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single carrier cabinets depending on cabinet type). Default is blank.
- **Interface ID**— Only displayed if the Associated Signaling field is "n" (indicates NFAS). Enter an interface ID (0 to 31) for the corresponding DS1 Interface circuit pack. In an NFAS Signaling Group, an Interface ID must be assigned to each DS1 facility so that it can be referenced by both interfacing switches. When a call is established between switches, the Interface ID at each end is used to determine which B-channel is to be used to establish the call. The Interface ID numbers on both ends must be the same.

Pages 2 through 5 of the Form

- **Service/Feature**— Used to specify the service type for all administered NCA-TSCs assigned in this Signaling Group. Valid entries are: "accunet," "i800," "inwats," "lds," "mega800," "megacom," "multiquest," "operator," "sdn," "sub-operator," "wats-max-bnd," and [user-defined services]. Default is blank.
- **As-needed Inactivity Time-out (min)**— Used to specify the inactivity time-out for as-needed NCA-TSCs assigned in the Signaling Group. An as-needed administered NCA-TSC staying inactive in this time period will be removed from service. Valid entries are 10 through 90. Default is blank.

- **TSC Index**— Display only field. Specifies the administered NCA-TSCs assigned. The administered NCA TSC index represents one DCS or DCS AUDIX logical channel connecting any two PBXs. The Index number ranges from 1 through 64.
- **Local Ext**— Used to assign an extension on the switch to the administered NCA-TSC. Enter an unassigned extension number. Note that the extension cannot be previously assigned to another administered NCA-TSC, station, or data module, etc.
- **Enabled**— Enter "y" to enable the administered NCA-TSC or enter "n" to disable the administered NCA-TSC. Valid entries are "y" or "n."
- **Establish**— Used to indicate the strategy for establishing this administered NCA-TSC. An entry of "permanent" means that the administered NCA-TSC can be established by either the near-end or the far-end. An entry of "as-needed" means the administered NCA-TSC will be established the first time the administered NCA-TSC is needed. It can be set up either by the near-end or far-end switch. Valid entries are "permanent" and "as-needed." Default is blank.
- **Dest. Digits**— Used to route the administered NCA-TSC to the far-end switch. Valid entries are the digits 0 through 9 and can include up to 15 digits. Default is blank.
- **Appl.**— Specifies the application this administered NCA-TSC is going to be used for. Valid entries are "audix," "dcs," and "gateway." The "audix" entry is used for ISDN-PRI D-Channel DCS AUDIX feature. The "dcs" entry is used for the DCS Over ISDN-PRI D-Channel feature. The "gateway" entry is used when the administered NCA-TSC will be used as one end in the gateway channel connecting to a BX.25 link. In "gateway" is entered, then the ISDN TSC Gateway Channel Assignments form must be completed. Default is blank.
- **Machine ID**— Used to indicate the far-end PBX or the AUDIX machine this administered NCA-TSC is to be connected to. Valid entries are 1 through 63 for DCS, 1 through 8 for AUDIX, or blank. Default is blank.

SIGNALING GROUP

Page 1 of 5

Group Number : _

Associated Signaling? n

Max number of NCA TSC: -

Primary D-Channel: _____

Max number of CA TSC: -

Secondary D-Channel: _____

Trunk Group for NCA TSC: -

Trunk Brd	Interface ID	Trunk Brd	Interface ID
1: _____	—	11: _____	—
2: _____	—	12: _____	—
3: _____	—	13: _____	—
4: _____	—	14: _____	—
5: _____	—	15: _____	—
6: _____	—	16: _____	—
7: _____	—	17: _____	—
8: _____	—	18: _____	—
9: _____	—	19: _____	—
10: _____	—	20: _____	—

SCREEN 5-39. Signaling Group Form (Page 1)—Example Only

Implementation Note:

The following fields are only displayed if the Associated Signaling field is "n" (indicates NFAS).

- Secondary D-Channel
- Trunk Brd
- Interface ID

ADMINISTERED NCA TSC ASSIGNMENT

Service/Feature: _____ As-needed Inactivity Time-out (min): _

TSC Index	Local Ext.	Enabled	Establish	Dest. Digits	Appl.	Machine ID
1:	_____		_____	_____	_____	_____
2:	_____		_____	_____	_____	_____
3:	_____		_____	_____	_____	_____
4:	_____		_____	_____	_____	_____
5:	_____		_____	_____	_____	_____
6:	_____		_____	_____	_____	_____
7:	_____		_____	_____	_____	_____
8:	_____		_____	_____	_____	_____
9:	_____		_____	_____	_____	_____
10:	_____		_____	_____	_____	_____
11:	_____		_____	_____	_____	_____
12:	_____		_____	_____	_____	_____
13:	_____		_____	_____	_____	_____
14:	_____		_____	_____	_____	_____
15:	_____		_____	_____	_____	_____
16:	_____		_____	_____	_____	_____

SCREEN 5-40. Signaling Group Form (Page 2)—Example Only

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ADMINISTERED NCA TSC ASSIGNMENT

TSC Index	Local Ext.	Enabled	Establish	Dest. Digits	Appl.	Machine ID
17:	_____	-	_____	_____	___	___
18:	_____	-	_____	_____	___	___
19:	_____	-	_____	_____	___	___
20:	_____	-	_____	_____	___	___
21:	_____	-	_____	_____	___	___
22:	_____	-	_____	_____	___	___
23:	_____	-	_____	_____	___	___
24:	_____	-	_____	_____	___	___
25:	_____	-	_____	_____	___	___
26:	_____	-	_____	_____	___	___
27:	_____	-	_____	_____	___	___
28:	_____	-	_____	_____	___	___
29:	_____	-	_____	_____	___	___
30:	_____	-	_____	_____	___	___
31:	_____	-	_____	_____	___	___
32:	_____	-	_____	_____	___	___

SCREEN 5-41. Signaling Group Form (Page 3)—Example Only

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ADMINISTERED NCA TSC ASSIGNMENT

TSC Index	Local Ext.	Enabled	Establish	Dest. Digits	Appl.	Machine ID
33:	_____	-	_____	_____	_____	_____
34:	_____	-	_____	_____	_____	_____
35:	_____	-	_____	_____	_____	_____
36:	_____	-	_____	_____	_____	_____
37:	_____	-	_____	_____	_____	_____
38:	_____	-	_____	_____	_____	_____
39:	_____	-	_____	_____	_____	_____
40:	_____	-	_____	_____	_____	_____
41:	_____	-	_____	_____	_____	_____
42:	_____	-	_____	_____	_____	_____
43:	_____	-	_____	_____	_____	_____
44:	_____	-	_____	_____	_____	_____
45:	_____	-	_____	_____	_____	_____
46:	_____	-	_____	_____	_____	_____
47:	_____	-	_____	_____	_____	_____
48:	_____	-	_____	_____	_____	_____

SCREEN 5-42. Signaling Group Form (Page 4)—Example Only

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ADMINISTERED NCA TSC ASSIGNMENT

TSC Index	Local Ext.	Enabled	Establish	Dest. Digits	Appl.	Machine ID
49:	_____	-	_____	_____	_____	_____
50:	_____	-	_____	_____	_____	_____
51:	_____	-	_____	_____	_____	_____
52:	_____	-	_____	_____	_____	_____
53:	_____	-	_____	_____	_____	_____
54:	_____	-	_____	_____	_____	_____
55:	_____	-	_____	_____	_____	_____
56:	_____	-	_____	_____	_____	_____
57:	_____	-	_____	_____	_____	_____
58:	_____	-	_____	_____	_____	_____
59:	_____	-	_____	_____	_____	_____
60:	_____	-	_____	_____	_____	_____
61:	_____	-	_____	_____	_____	_____
62:	_____	-	_____	_____	_____	_____
63:	_____	-	_____	_____	_____	_____
64:	_____	-	_____	_____	_____	_____

SCREEN 5-43. Signaling Group Form (Page 5)—Example Only

ISDN TSC Gateway Channel Assignments

Purpose

The ISDN TSC Gateway Channel Assignments form is required to be administered when the switch is to act as a gateway between a switch that supports the Temporary Signaling Connections (TSC) feature and a non-TSC-compatible PBX. The gateway provides interface protocols necessary for communications to exist between a switch administered with Non-Call Associated TSCs in a Signaling Group on the ISDN side and a processor channel (BX.25) on the non-ISDN side. A NCA-TSC is a type of virtual connection established for exchanging user information messages on ISDN D-Channels. There is no B-Channel related to the connection.

Administration Commands

The following administration commands can be used to access the ISDN TSC Gateway Channel Assignments form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command. You may also wish to refer to the Signaling Group and Processor Channel Assignment forms.

Action	Object	Qualifier*

charge	isdn tsc-gateway	
display	isdn tsc-gateway	['print']

- Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

- **Sig Group**— Used to indicate the Signaling Group that the NCA-TSC belongs to. Valid entry is a Signaling Group number in the range of 1 through 8. Default is blank.
- **Adm'd NCA TSC Index**— Used to indicate the administered NCA-TSC that will act as 1 end point of the gateway. Valid entry is 1 through 64. Default is blank.
- **Processor Channel**— Used to indicate the processor channel to which the administered NCA-TSC index will be mapped. This processor channel is used as another end point of the connection in this gateway assignment. Valid entry is a processor channel in the range 1 through 64. Default is blank.
- **Application:**— Used to indicate the feature this gateway is used for. A gateway channel can be used for DCS over ISDN-PRI D-Channel or ISDN-PRI DCS AUDIX feature. Valid entries are "audix" or "dcs." Default is blank

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ISDN TSC GATEWAY CHANNEL ASSIGNMENT

Sig Group	Adm'd TSC	NCA Index	Processor Channel	Appli- cation	Sig Group	Adm'd TSC	NCA Index	Processor Channel	Applic- cation
1:	—		—	—	17:	—	—	—	—
2:	—		—	—	18:	—	—	—	—
3:	—		—	—	19:	—	—	—	—
4:	—		—	—	20:	—	—	—	—
5:	—		—	—	21:	—	—	—	—
6:	—		—	—	22:	—	—	—	—
7:	—		—	—	23:	—	—	—	—
8:	—		—	—	24:	—	—	—	—
9:	—		—	—	25:	—	—	—	—
10:	—		—	—	26:	—	—	—	—
11:	—		—	—	27:	—	—	—	—
12:	—		—	—	28:	—	—	—	—
13:	—		—	—	29:	—	—	—	—
14:	—		—	—	30:	—	—	—	—
15:	—		—	—	31:	—	—	—	—
16:	—		—	—	32:	—	—	—	—

SCREEN 5-44. ISDN TCS Gateway Channel Assignment (Page 1)—Example Only

ISDN TSC GATEWAY CHANNEL ASSIGNMENT

Sig Group	Adm'd TSC Index	NCA	Processor Channel	Appli- cation	Sig Group	Adm'd TSC Index	NCA	Processor Channel	Applic- cation
33:	—		—	—	49:	—	—	—	—
34:	—		—	—	50:	—	—	—	—
35:	—		—	—	51:	—	—	—	—
36:	—		—	—	52:	—	—	—	—
37:	—		—	—	53:	—	—	—	—
38:	—		—	—	54:	—	—	—	—
39:	—		—	—	55:	—	—	—	—
40:	—		—	—	56:	—	—	—	—
41:	—		—	—	57:	—	—	—	—
42:	—		—	—	58:	—	—	—	—
43:	—		—	—	59:	—	—	—	—
44:	—		—	—	60:	—	—	—	—
45:	—		—	—	61:	—	—	—	—
46:	—		—	—	62:	—	—	—	—
47:	—		—	—	63:	—	—	—	—
48:	—		—	—	64:	—	—	—	—

SCREEN 5-45. ISDN TCS Gateway Channel Assignment (Page 2)—Example Only

Trunk Groups

This section contains the forms and instructions required to implement trunk groups in the System.

A System can be administered to have up to 99 trunk groups (maximum) and up to 400 trunks (maximum). Note that if the Hospitality Parameters Reduction Option is enabled on the System-Parameters Customer-Options form, the maximum number of trunk groups that may be administered is limited to 50. In addition, the number of trunk groups that can be measured by the BCMS is 32.

Note: Trunks and Access Endpoints consume the same resource. Thus, the sum of trunks and Access Endpoints cannot exceed 400.

The following trunk group forms are included in this section:

- Access Trunk Group
- APLT Trunk Group
- CO Trunk Group
- CPE Trunk Group
- DMI—BOS Trunk Group
- DID Trunk Group
- Direct Inward and Outward Dialing Trunk Group (International G1.2SE only)
- FX Trunk Group
- ISDN-PRI
- PCOLGs
- RLT Group
- Tandem Trunk Group
- Tie Trunk Group
- WATS Trunk Group

Trunking—General

The following provides a reference source for various trunk-related terms. Refer to this material for additional information when administering the System's trunk group forms. In addition, refer to *AT&T Network and Data Services Reference Manual, 555-025-201*, and to *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference, 555-025-101*.

Trunk Characteristics

A trunk is named for its transmission characteristics and can be analog or digital depending on the type of signals it carries. One transmission characteristic is signaling which is the transmission of supervision, address, alerting, or other switching information between switches.

A trunk is further classified as one of the following:

- **1-way incoming trunk**— A local trunk that can be selected (seized) by the far-end connected switch.
- **1-way outgoing trunk**— A trunk that can be seized by the local switch to call the far-end switch.
- **2-way trunk**— A trunk that can be seized at either end of the connected switches.

Transmission of Supervision

Supervisory signaling establishes or sets up the connection of the local switch to the distant switch. In general, supervisory signaling can be thought of in two phases: the seizure signal (the originating office's signal for a request for service from the distant office) and the start dial signal (the distant office's acknowledgement that it is ready to accept dialing from the originating office).

The following four types of supervision signaling are used in trunks:

1. **E&M (Ear & Mouth) supervision**—A symmetric signaling scheme used on private network trunks in which DC voltage levels are sent over E&M leads. The E and M leads are separate from the transmission path (T & R leads). E&M signals indicate on-/off-hook states of each end of the connection path. E&M signaling is further divided into types (Type I through V). DIMENSION PBX systems use only Type I and DEFINITY, System 75, and System 85 can use Type I or V. Type I is signaling from the trunk interface to the far-end over the M lead using nominal -48 volts for off-hook and local ground for on-hook. Signaling from the far-end is over the E lead using far-end ground for off-hook and open for on-hook. Type V is signaling in both directions by means of open for on-hook and ground for off-hook.
2. **GS (Ground Start) supervision**—A supervisory signaling scheme used on public network trunks in which ground is applied on the Tip (T) lead by the CO and on the Ring (R) lead by the PBX. For example, the calling PBX on a call to a central office using an outgoing trunk interface seizes the outgoing trunk by placing a ground on the trunk interface R lead. The CO recognizes the trunk seizure as a request for service and grounds the trunk T lead to indicate to the calling PBX that the CO is ready to receive digits. Ground Start trunks are preferred over trunks using Loop Start signaling (description follows) for the following reasons:

- The tip ground seizure that the distant switch sends minimizes the interval during which a 2-way trunk can be seized from both ends (called glare) since the System (that is, PBX) can make trunks busy to outgoing calls almost immediately.
 - Ground Start trunks provide a positive indication of a distant switch's disconnect. The removal of the tip ground can be acted upon by the PBX:
 - to prevent a station line from being connected to CO dial tone by remaining off-hook after completing a call. This prevents a restricted station from making an unauthorized call after placing an authorized call via the attendant.
 - to hold the trunk busy until the CO disconnects so that another PBX station cannot seize the trunk and be connected to the CO party of the previous call.
3. LS (Loop Start) supervision—A supervisory signaling scheme used between a telephone and a PBX in which the telephone or far-end office completes the loop current path formed by the trunk leads (that is, wires). The circuit provides one signaling state when it is open and another when it is closed. A third signaling state is achieved by changing the direction or magnitude of current in the loop. The most preferred method of loop start signaling is reverse battery signaling. Disconnect times when using Loop Start signaling can result in delays of up to 10 to 20 seconds. In addition, glaring as described in Ground Start is possible.
4. RB (Reverse Battery) supervision—A supervisory technique on 1-way trunks that uses open and closure signals from the originating end and reversals of battery and ground from the terminating end (normally used on direct inward dialing trunks).

Transmission of Address

With Signaling there are three types of transmission of address. Transmission of address is the method of signaling used to represent digits and/or characters for called numbers, calling numbers, etc. The methods of addressing are dial pulse (DP), dual tone multi-frequency (DTMF), and multi-frequency (MF) addressing.

- DP addressing—A means of signaling that consists of regular momentary interruptions of a direct or alternating current at the sending end in which the number of interruptions corresponds to the value of a digit or character (alternating current is not used by PBXs). The interruptions are usually produced by a rotary telephone dial, or may be produced by a sender in a switching system.
- DTMF addressing—Signaling arrangements (commonly known as touch-tone) consist of dialing signals of two simultaneous tones. 1 tone from a low group of four frequencies and the other from a high group of four frequencies correspond to digits, letters, or characters (0 through 9, A through Z, or * and #). One of the tones (1633 Hz) from the high group is a spare.
- MF addressing—Signaling arrangements that make use of two frequencies, and only two, out of six to represent ten decimal digits (0 through 9) and five auxiliary signals. MF signals are used for called number addressing, calling number identification, ringback, and coin control.

Transmission of Alerting

Network trunks operate as automatic, immediate start, dial tone, wink start, or delay dial according to the type of start dial signal (alerting) the switch sends out or expects to receive. The different transmissions of alerting areas follows:

- Automatic—The originating switch sends no digits or start dial signal, expecting the terminating switch to complete the call. The call is usually completed by the attendant or other service such as CAS.
- Immediate start—The originating switch sends digits immediately without waiting for a start dial signal from the terminating switch.
- Dial tone—The terminating switch sends precise dial tone to the originating switch, indicating that the terminating switch is ready to receive digits.
- Wink start—The terminating switch sends a wink start (momentary off-hook) signal to the originating switch, indicating that the terminating switch is ready to receive digits.
- Delay dial—The terminating switch sends a delay dial signal (an off-hook signal followed by an on-hook signal) to the originating switch, indicating that the terminating switch is ready to receive digits.

With digital trunks, signaling schemes are basically the same as for analog trunks when establishing a call. Supervisory, addressing, and alerting have been carried over to the digital trunks. These schemes are handled in a variety of ways to indicate particular calling states, such as on-hook, off-hook, ringing, not ringing, etc., by using "A" and "B" bit timed signaling. "A" and "B" bits carry a zero or one depending on the type of trunk, the near-end channel unit type, far-end channel type, trunk condition (open loop, loop closure, reverse battery, etc.), and whether it is transmit or receive signaling.

In addition to the above, refer to DS1 Circuit Pack description in this chapter for trunk-related terms associated with DS1 trunk interfaces.

Private Network Trunks

Private network trunks are referred to as tie trunks, tandem trunks, or both. The tie trunks that interconnect the switches of a private network are "universal" which means that the trunks can be administered with a variety of translation encodes. The originating switch can recognize any start dial signal (precise dial tone, wink start, or delay dial) that the terminating switch sends. If the originating switch does not receive one of these start dial signals, it can be administered to send digits after an administered time-out interval. The time-out interval is the amount of time the originating switch waits before sending digits.

Tie trunks are further classified according to the type of signal (analog or digital) they carry.

Analog Tie Trunks

Analog tie trunks are communications paths that carry voice and voiceband data communication. The term voice implies that sound is transferred into electrical form and transmitted within an approximate voiceband of 300 Hz to 3400 Hz. Voiceband data implies that data is transmitted within the voiceband and requires a conversion resource (modem) at both ends of the connection. The data transmission rate for analog tie trunks depends on the data-handling capability of the modems in the connection. Other factors that affect the data rate are the number of tie trunks

in the connection and the technology of any multiplex systems used in the facilities. Generally, for data rates up to 300 bps, a connection can have five tie trunks in tandem. For data rates greater than 300 bps up to 2400 bps, a connection can have up to three tie trunks in tandem. For data rates greater than 2400 bps up to 4800 bps, a connection can have up to two tie trunks in tandem.

Analog tie trunks used in unswitched connections can support up to 9600 bps.

A special type of private network tie trunk is a Release Link Trunk. The RLT is used between a central or main location and a branch location to provide CAS. It functions as a 1-way outgoing circuit from the branch locations and a 1-way incoming to the main location. RLTs participate in the redirection of incoming calls originally directed to the branch location to attendants at the main location and handle call completion back to the branch location.

Another special type of trunk is the Advanced Private Line Termination (APLT) trunk. APLT provides access to and termination from central office based private networks; namely, Common Control Switching Arrangements (CCSA) and EPSCS. APLT trunks are physically the same as those used for analog tie trunks where the trunk signaling is compatible with EPSCS and CCSA network switches. The outgoing APLT trunk repeats any number of digits to the private network as dialed. APLT trunks can tandem through the PBX from EPSCS network only; CCSA networks require an attendant to complete the call.

Digital Tie Trunk (DS1)

The digital tie trunk is a high-speed and a high-volume trunk interface to T1 carrier. It uses digital signal (DS1) on the T1 carrier. By multiplexing twenty-four 64-kbps digital channels onto a single 1.544-Mbps T1 carrier, DS1 offers an economical alternative to the analog tie trunk as well as a high-speed fully digital (without modems) connection between the switches.

The maximum per-channel data rate for DS1 is 64 kbps, and it can carry voice, voiceband data, or high-speed data communications.

The DS1 tie trunk is also used for DMI. DMI provides high-speed communications over digital transmission facilities between a host computer and a DEFINITY system, System 75, or System 85. The DMI trunk uses the "A" bit for signaling to provide wink-start dial-repeating into the switch and automatic out or 2-way wink start.

Public Network Trunks

Public network trunks are classified according to the type of signal (analog or digital) they carry. Public network trunks are used to connect a private network switch to a public network switch (CO). In reference to a CO, the term "local" applies to a switch within the local exchange area. An exchange area has a single uniform set of charges for telephone service and may be served by more than one CO. Within an exchange area, a call between any two points is a local call.

Public network trunks also function as "special access" to AT&T Communications (AT&T-C) toll network. AT&T-C provides such services as Megacom service, Megacom 800 service, and ACCUNET telecommunications service.

Analog Trunks

Analog public network trunks are as follows:

- CO Trunk—A 1-way outgoing, 1-way incoming, or 2-way trunk connecting the switch to a CO within the local exchange area.
- FX Trunk—A 1-way outgoing, 1-way incoming, or 2-way trunk connecting the switch to a CO that is outside the local exchange area. These trunks give a caller direct access to a central office outside the local exchange area without having to use the public network.
- WATS Trunk—A 1-way outgoing or 1-way incoming trunk connecting the switch to a CO equipped to handle WATS calls. The outgoing trunks allow a customer, for a monthly charge, to place outgoing station-to-station calls to telephones in a defined service area. The service area has one or more geographic areas known as WATS bands. Incoming trunk calls are completed by the attendant or other service.
- 800-Service Trunk—A 1-way incoming trunk connecting the switch to a CO equipped to handle 800 Service calls (also known as Inward WATS). These trunks allow a customer, for a monthly charge, to receive incoming station-to-station calls from telephones in a defined service area without charge to the caller.
- DID Trunk—A 1-way incoming trunk connecting the switch to a local CO. These trunks allow calls from the public network to complete to terminals (stations) assigned to a private network switch without attendant assistance.
- DOD Trunk—A 1-way outgoing trunk for outgoing calls connecting the switch to a CO. These trunks allow terminal (station) users to place calls to a public network central office directly (without attendant assistance).
- DIOD Trunk—A 2-way (incoming and outgoing) trunk used in Japan to provide a communication link between a public local exchange and a G1.2SE switch. DIOD is a combination of the DID and CO calling feature (International G1.2SE only).

Digital Trunks

The digital public network trunk provides a DS1 interface to the central office over T1 carrier. The DS1 public network trunk provides an interface to CO, FX, WATS, DID, and DIOD. The DS1 interface supports incoming and outgoing dial types of ground-start, loop-start, auto/auto, auto/delay, auto/immed, and auto/wink. Signaling may be robbed-bit or common channel depending on the trunk type and the incoming/outgoing dial type. The interface may be used to connect the switch to a toll office directly using wink-start tie trunks for 2-way access to the toll network.

Access Trunk Group

Purpose

This form is used to assign an Access Trunk Group and associated trunk ports. Access trunks provide the System with the ability to communicate with another PBX as either a main or tandem switch in an ETN arrangement. This trunk group does not send or receive Traveling Class Marks.

Administration Commands

The following administration commands can be used to access the Access Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X... ['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as **add** or **change**.
- **Group Type**— Enter "access" to identify the trunk group type.
- **SMDR Reports**— Enter "y" to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is "1."
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).

- **Direction**— Enter whether the trunk group is "incoming," "outgoing," or "two-way." Default is "two-way."
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are "y" or "n." Default is "n."
- **Dial Access**— Enter "y" to allow the trunk group to be accessed via a TAC; otherwise, enter "n." Default is "y." Access via the ARS feature is allowed regardless of this entry.
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is "99."
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this group extension. Allowable entries are an extension number (can be a VDN extension), 0 (attendant), **or** leave blank if the Trunk Type (in/out) field is not "auto/...."
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A "0" indicates no calls will be held in queue. Enter "0" for DCS trunks. The field is turned off if the Direction field is "incoming." Default is "0."
- **Administrable Timers Page**— Only displayed for international applications. Entering a "y" causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers page then becomes Page 3 of x. Valid entries are "y" or "n." Default is "n." (International G1.2SE only). **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number, 0 (attendant), VDN, **or** leave blank if the Trunk Type (in/out) field is not "auto/...." If "0" is entered, a call is treated as an LDN call.
- **Comm Type**— Indicates if the trunk is to be used for voice, data, alternate voice-data (that is, avd), or alternate voice/voice grade data and 56 kbps digital data (that is, rbavd) calls. Allowable entries are "avd," "rbavd," "voice," or "data." Type "rbavd" supports access to voice/data SDN service on robbed-bit T1 transmission facilities. Default is "voice." Note that "avd" and "rbavd" types require trunk member ports on a DS1 circuit pack. An "rbavd" type requires that the DS1 circuit pack be administered for robbed-bit signaling.
- **Auth Code**— Enter "y" if an authorization code must be dialed to complete incoming calls on the trunk group; otherwise, enter "n." This field can only be set to "y" if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form. Default is "n."
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to mute calls to restricted or unrestricted facilities according to the endpoint's information transfer capability. The ITC field is displayed on G3i systems for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0." This field is not displayed if the Comm Type field is administered as "voice," nor is it displayed if the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is set to "0." Default is "rest" (restricted). Allowed values are "rest" and "unre" (unrestricted).

- **BCC** (Bearer Capability Class)—Used by the GRS feature and identifies the type of traffic on trunks in the group. The BCC entry is used by far-end tandem switches to select outgoing routing facilities with equivalent BCC classes. Allowable entries are 0, 1, 2, 3, and 4. Default is 0 for "rbavd" and "avd" and 2 for "data." The BCC field is always displayed when the Comm Type is "avd," "rbavd," or "data."

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Generic 3—Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls.

- **Trunk Type (in/out)**— Identifies the physical type of incoming and outgoing trunks. Allowable entries are listed below.

auto/auto	auto/delay	auto/immed	auto/wink
delay/auto	delay/delay	delay/immed	delay/wink
immed/auto	immd/delay	immed/immed	immed/wink
wink/auto	wink/delay	wink/immed	wink/wink

- **Incoming Rotary Timeout (sec)**— Is the timing interval required by the central office that the System is connected to. If the System is connected to a step-by-step office, 18 or more seconds must be used; if the System is not connected to a step-by-step office, five or more seconds may be used. The maximum value is 99 seconds. Allowable entries are five through 99, or leave blank. Default is "5."
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are "tone" or "rotary." Default is "tone."
- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are "tone" or "rotary." Default is "tone."
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving central office or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Default is "500."
- **Digit Treatment**— Indicates if digits are to be absorbed or inserted. A blank indicates no digit absorption or insertion. Allowable entries are "absorption" or "insertion," or leave blank.
- **Digits**— Indicates the digits to be inserted or number of digits to be absorbed. This field is used with the Digit Treatment field. No entry indicates no digit absorption or insertion is done. Allowable entries are the number of digits to be absorbed (1 to 5) or the actual digits to be inserted (up to 5 digits).
- **Connected to Toll**— Enter "y" if connected to a CO toll office; otherwise, enter "n" (default). This field is displayed when the Trunk Type field contains an entry of "auto/...," "delay/...," "wink/...," or "immed/ ..."
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is "n." Specifies the loss plan to be used for the trunk group. Allowable entries are "normal" (default) or "low." This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The "low" option (described as the ISL digital low loss plan in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference, 555-025-101*) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of **no more** than three PBXs: one main and one or two satellite PBXs.
3. All PBXs have the "low" option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the preceding conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk—voice or AVD DS1 interface) loss plans.
- **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)—Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network, otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference, 555-025-101*.)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class 5 office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference, 555-025-101*.)

- **Incoming Dial Tone**— Indicates whether or not the trunk group will pass on incoming dial t1 to the calling party. Allowable entries are "y" or "n."
- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are "300," "1200," "2400," "4800," "9600," and "19200." This field is only displayed if the Comm Type field is "avd." Default is "1200."
- **Synchronization**— Enter whether the trunk group will use "synchronous" or "asynchronous" communications. Allowable entries are "async" and "sync." This field is only displayed if the Comm Type field is "avd." Default is "async."
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are "full" or "half." Default is "full." This field is only displayed if the Comm Type field is "avd."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (International G1.1SE and G1.2SE).
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. Allowable entries are 0 through 250. The default is "10."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not ACA measurements will be taken for this trunk group. Allowable entries are "y" or "n." Default is "n." If "y" is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is "0," the System will not consider long holding calls. Allowable entries are 0 through 10. Default is "1."
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is "0," the System will not consider short holding calls. Allowable entries are 0 through 160. Default is "10."
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is "15."
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are "internal," "external," "both," "none." Enter "internal" if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and "external" to send the data to the 3B CMS. Enter "both" to send the data to both systems for measurement reports or enter "none" if trunk group measurements are not required. System default is "none."
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are "y" or "n." Default is "n."

- **Used for DCS?**— Indicates whether or not the trunk will send and receive messages on a DCS Signaling Link. Allowable entries are "y" or "n." If "y" is entered, complete the PBX ID field. Default is "n."
- **PBX ID**— Identifies the remote PBX within the network that the trunk will communicate with on a DCS Signaling Link. Allowable entries are 1 through 63. Default is "1."
- **Suppress # Outpulsing**— Indicates end-to-end signaling begins with (and includes) the "#" when y is entered in this field. The final # is suppressed in cases where the System would normally outpulse it. This field should be set to "y" when the central office (for example, rotary) or any other facility treats # as an error. Default is "n."
- **Maintenance Tests**— Indicates if maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are "y" or "n." Default is "y."

Page 3 of the Form (Administrable Timers) (International G1.2SE only)

Note: This page is only displayed if "y" is entered in the Administrable Timers Page field on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is "300."
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is "300."
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "1000."
- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "3000."
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "3000."
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is "600."
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is "5000."

- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is "130."
- **PPS**— Enter either "10" or "20" to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are "10" or "20." Default is "10."
 - If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of five. The field cannot be blank. The default is "40."
 - If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of five. The field cannot be blank. The default is "20."
- **Make (msec)**— Enter the duration of the make interval while the system is outpulsing digits using dial pulse signaling.
 - If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of five. The field cannot be blank. The default is "60."
 - If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of five. The field cannot be blank. The default is "30."
- **Break (msec)**— Enter the duration of the break interval while the system is outpulsing digits using dial pulse signaling.
 - If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of five. The field cannot be blank. The default is "60."
 - If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of five. The field cannot be blank. The default is "30."
- **PPM**— Enter "y" (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter "n" (no). Valid entries are "y" or "n." Default is "n." (This field does not appear for DID, Tie, Tandem, or Access trunks.)

Pages 3 through 9 of the Form (Group Member Assignments)

Note: For International Systems, if "y" has been entered in the Administrable Times Page field on Page 1 of the form, the Group Member Assignments will appear on Pages 4 through 10 of the form.

- **Port**— Enter five to six characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to 10 characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: This information must be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Night**— Specifies a night destination for an individual trunk. This entry overrides the group Night Service entry on Page 1 of the form. Allowable entries are an extension (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type on Page 1 is not "auto/...."
- **Mode**— Specifies the signaling mode used on Tie Trunks when using TN760B circuit packs. Allowable entries are "E&M" (interface), "simplex" (phantomed), or "protected." This entry must correspond to associated dip switch settings on the circuit pack. No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Type**— When using TN760B circuit packs, this entry specifies the type of trunk used. Allowable entries are "t1 stan" (Type 1 Standard), "t1 comp" (Type 1 Compatible), or "type 5." No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is no entry (blank) and internally treated as a zero. This delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

TRUNK GROUP		Page 1 of 9
Group Number: _	Group Type: <u>access</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALLS</u>	COR: <u>1</u>	TAC: _
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>n</u>	Night Service: _
Queue Length: <u>0</u>	Incoming Destination: _	
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	
		BCC: <u>0</u>
TRUNK PARAMETERS		
Trunk Type (in/out): _____	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: _____	Digits: _____	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO LOSS: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>
Answer Supervision Timeout? <u>10</u>		

SCREEN 5-46. Access Trunk Group Form (Page 1)—Example Only (Standard)

Implementation Note:

The BCC field is displayed when the Comm Type is "avd," "rbavd" or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...," "delay/...," "immed/...," or "wink/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The ITC (Information Transfer Capability) field is displayed on G3i systems for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is set to "0."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>		
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Used for DCS? <u>n</u>	PBX ID: <u>1</u>	
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

SCREEN 5-47. Access Trunk Group Form (Page 2)—Example Only (Standard)**Implementation Note:**

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The PBX ID field is not displayed if the Used for DCS field is "n."

GROUP MEMBER ASSIGNMENTS

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	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

SCREEN 5-48. Access Trunk Group Form (Page 3)—Example Only (Standard)

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS

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	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

SCREEN 5-49. Access Trunk Group Form (Page 9)—Example Only (Standard)

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                                TRUNK GROUP
Group Number: 71                Group Type: access    Page 1 of 10
Group Name: OUTSIDE CALL        COR: 1            SMDR Reports? y
Direction: two-way            Outgoing Display? n    TAC: 501
Dial Access? y                Busy Threshold: 99    Night Service: -
Queue Length: 0            Administrable Timer Page? y Incoming Destination: 0
Comm Type: voice            Auth Code? n

TRUNK PARAMETERS
Trunk Type (in/out): auto/auto    Incoming Rotary Timeout(sec): 5
Outgoing Dial Type: tone        Incoming Dial Type: tone
Digit Treatment: _____    Disconnect Timing(msec): 500
                                Digits: _____
Connected to Toll? n    STT Loss: normal    DTT to DCO Loss: normal
Incoming Dial Tone? y

Disconnect Supervision? y
Answer Supervision Timeout? 10

```

**SCREEN 5-50. Access Trunk Group Form (Page 1)—Example Only
(International G1.2SE only)**

Implementation Note:

The BCC field is displayed when the Comm Type is "avd," "rbavd:" or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "immed/...", or "wink/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

		TRUNK GROUP	Page 2 of 10
display trunk-group 71			
TRUNK FEATURES			
ACA Assignment?	<u>n</u>	Measured?	<u>none</u>
Data Restriction?	<u>n</u>		
Used for DCS?	<u>n</u>		
Suppress # Outpulsing?	<u>n</u>	Maintenance Tests?	<u>y</u>

**SCREEN 5-51. Access Trunk Group Form (Page 2)—Example Only
(International G1.2SE only)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Time Treshold

The PBX ID field is not displayed if the Used for DCS field is "n."

ADMINISTRABLE TIMERS		Page 3 of 10
Incoming Disconnect (msec) :	300	Outgoing Disconnect (msec) : 300
		Outgoing Dial Guard (msec): 1000
Incoming Glare Guard (msec) :	3000	Outgoing Glare Guard (msec): 3000
		Outgoing Rotary Dial Interdigit (msec): 600
Ringing Monitor (msec):	5000	Incoming Seizure (msec): 130
OUTPULSING TIMING		
PPS: 10	Make (msec): 40	Break (msec): 60 PPM? n

**SCREEN 5-52. Access Trunk Group Administrable Timers (Page 3)—Example Only
(International G1.2SE only)**

Implementation Note:

This page is only displayed if "y" is entered in the Administrable Timers Page field on Page 1.

GROUP MEMBER ASSIGNMENTS

Page 4 of 10

Port	Name	Night	Mode	Type	Ans Delay
1: _____	_____	_____	_____	_____	_____
2: _____	_____	_____	_____	_____	_____
3: _____	_____	_____	_____	_____	_____
4: _____	_____	_____	_____	_____	_____
5: _____	_____	_____	_____	_____	_____
6: _____	_____	_____	_____	_____	_____
7: _____	_____	_____	_____	_____	_____
8: _____	_____	_____	_____	_____	_____
9: _____	_____	_____	_____	_____	_____
10: _____	_____	_____	_____	_____	_____
11: _____	_____	_____	_____	_____	_____
12: _____	_____	_____	_____	_____	_____
13: _____	_____	_____	_____	_____	_____
14: _____	_____	_____	_____	_____	_____
15: _____	_____	_____	_____	_____	_____

SCREEN 5-53. Access Trunk Group Form (Page 4)—Example Only
(International G1.2SE only)

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS

Page 10 of 10

Port	Name	Night	Mode	Type	Ans Delay
91: _____	_____	_____	_____	_____	_____
92: _____	_____	_____	_____	_____	_____
93: _____	_____	_____	_____	_____	_____
94: _____	_____	_____	_____	_____	_____
95: _____	_____	_____	_____	_____	_____
96: _____	_____	_____	_____	_____	_____
97: _____	_____	_____	_____	_____	_____
98: _____	_____	_____	_____	_____	_____
99: _____	_____	_____	_____	_____	_____

SCREEN 5-54. Access Trunk Group Form (Page 10)—Example Only
(International G1.2SE only)

Implementation Note:

Above Group Member Assignments pages illustrate the resulting pagination when "y" is entered in the "Administrable Timers Page" field on Page 1 of the form; otherwise, page numbers will be three through nine.

APLT Trunk Group

Purpose

This form is used to assign an Advanced Private Line Termination (APLT) Trunk Group and associated trunk ports. The APLT Trunk Group provides access to and termination from private line networks. APLT trunks are only to be used with a Common Control Switching Arrangement (CCSA) or EPSCS network.

Administration Commands

The following administration commands can be used to access the APLT Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter "aplt" to identify the type of trunk group.
- **SMDR Reports**— Enter "y" to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."
- **COR**— Enter a class of restriction (COR) number from 0 through 53 that reflects the desired restriction. Default is "1."
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is "incoming," "outgoing," or "two-way." Default is "two-way."

- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are "y" or "n." Default is "n."
- **Dial Access**— Enter "y" to allow the trunk group to be accessed via a TAC; otherwise, enter "n." Default is "y." Access via the ARS feature is allowed regardless of this entry.
- **Busy Threshold**— Enter the number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is "99."
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type is not "auto/...."
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A "0" indicates no calls will be held in queue. Default is "0." This field is turned off if the Direction field is "incoming."
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number, 0 (attendant), VDN, or leave blank if the Trunk type is not "auto."
- **Auth C**— Enter "y" if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter "n." This field can only be set to "y" if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form. Default is "n."
- **Trunk Type (in/out)**— Identifies the physical type of incoming and outgoing trunks. Allowable entries are listed below.

auto/auto	auto/delay	auto/immed	auto/wink
delay/auto	delay/delay	delay/immed	delay/wink
immed/auto	immed/delay	immed/immed	immed/wink
wink/auto	wink/delay	wink/immed	wink/wink

- **Incoming Rotary Timeout (sec)**— Is the timing interval required by the central office that the System is connected to. If the System is connected to a step-by-step office, 18 or more seconds must be used; if the System is not connected to a step-by-step office, five or more seconds may be used. The maximum value is 99 seconds. Allowable entries are 5 through 99. Default is "5."
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are "tone" or "rotary." Default is "tone."
- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are "tone" or "rotary." Default is "tone."
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving central office or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Default is "500."

- **Connected to Toll**— Enter "y" if connected to a CO toll office; otherwise, enter "n." This field is displayed when the Trunk Type field contains an entry of "auto/..." "delay/..." "wink/..." or "immed..." Default is "n."
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is "n." Specifies the loss plan to be used for the trunk group. Allowable entries are "normal" (default) or "low." This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The "low" option (described as the ISL digital low loss plan in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DNI/ISDN-PRI Reference*, 555-025-101) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs.
3. All PBXs have the "low" option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk-voice or AVD interface) loss plans.
 - **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)**— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a CO) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/....

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DNI/ISDN-PRI Reference*, 555-025-101.)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber

station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference, 555-025-101.*)

- **Incoming Dial Tone**— Indicates whether or not the trunk group will pass on incoming dial t1 to the calling party. Allowable entries are "y" or "n." Default is "y."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the. ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (international G1.1SE and G1.2SE).
- **Answer Supevision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer-supervision. Allowable entries are 0 through 250. Dafault is "10."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are "y" or "n." Default is "n." If "y" is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is "0," the System will not consider long holding calls. Allowable entries are 0 through 10. Default is "1."
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is "0," the System will not consider short holding calls. Allowable entries are 0 through 160. Default is "10."
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is "15."
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are "internal," "external," "both," "none." Enter "internal" if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and "external" to send the data to the 3B CMS. Enter "both" to send the data to both systems for measurement reports or enter "none" if trunk group measurements are not required. System default is "none."
- **Internal Alert**— Indicates if internal ringing and call coverage is used for incoming calls on this trunk group. Allowable entries are "y" and "n." Default is "n."
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are 'y' or "n." Default is "n."

- **Suppress # Outpulsing**— Indicates end-to-end signaling. Begins with (and includes) the "#" when "y" is entered in this field. The final # is suppressed in cases where System would normally outpulse it. This field should be set to "y" when the central office (for example, rotary) or any other facility treats # as an error. Default is "n."
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are "y" or "n." Default is "y."

Pages 3 through 9 of the Form (GROUP MEMBER ASSIGNMENTS) (Standard)

- **Port**— Enter five to six characters. The first character identifies the network (1 to 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 to 08).
- **Name**— Enter up to 10 characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Night Service and Balance/Loss information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Night**— Specifies a night destination for an individual trunk. This entry overrides the Night Service entry on Page 1 of the form. Allowable entries are an extension (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type entry on Page 1 is not "auto/...."
- **Mode**— Specifies the signaling mode used on Tie Trunks with TN722A, TN722B, TN760B, TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are E&M (interface), simplex (phantomed), or protected. This entry must correspond to associated dip switch settings on the circuit pack.
- **Type**— Specifies the type of trunk used. Allowable entries are "t1 stan" (Type 1 Standard), "t1 comp" (Type 1 Compatible), or "type 5."
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is no entry (blank) and internally treated as a zero. This delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

TRUNK GROUP		Page 1 of 9
Group Number: _	Group Type: <u>aplt</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: _
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: _
Queue Length: <u>0</u>	Incoming Destination: _	
	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type (in/out) : _____	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-55. Advance Private Line Termination Trunk Group Form (Page 1)—
Example Only (Standard)**

Implementation Note:

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "dimmed/...", or "wink/..."

The STT Loss field is only displayed when the Connected toToll field is "n."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>	Internal Alert? <u>n</u>	
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

**SCREEN 5-56. Advanced Private Line Termination Trunk Group Form (Page 2)—
Example Only (Standard)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS						Page 3 of 9
	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

**SCREEN 5-57. Advanced Private Line Termination Trunk Group Form (Page 3)—
Example Only (Standard)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 9 of 9
	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

**SCREEN 5-58. Advanced Private Line Termination Trunk Group Form (Page 9)—
Example Only (Standard)**

TRUNK GROUP		Page 1 of 9
Group Number: <u>71</u>	Group Type: <u>aplt</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC : <u>601</u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u>_</u>
Queue Length: <u>0</u>	Incoming Destination: <u></u>	
	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type (in/out): <u></u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO LOSS: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Disconnect Supervision: <u>y</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-59. Advanced Private Line Termination Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "immed/...", or "wink/..."

The STT Loss field is only displayed when the Connected toToll field is "n."

TRUNK FEATURES		TRUNK GROUP		Page 2 of 9
ACA Assignment?	<u>n</u>	Measured:	<u>none</u>	
		Internal Alert?	<u>n</u>	
		Data Restriction?	<u>n</u>	
Suppress # Outpulsing?	<u>n</u>	Maintenance Tests?	y	

**SCREEN 5-60. Advanced Private Line Termination Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS						Page 3 of 9
	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

**SCREEN 5-61. Advanced Private Line Termination Trunk Group Form (Page 3)—
Example Only (International G1.1SE and G1.2SE)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 9 of 9
	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

**SCREEN 5-62. Advanced Private Line Termination Trunk Group Form (Page 9)—
Example Only (International G1.1SE and G1.2SE)**

Central Office Trunk Group

Purpose

This form is used to assign a Central Office (CO) Trunk Group and associated trunk ports. The trunk group connects the System to the public telecommunications network via a local CO.

Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. Assign consecutive Group Numbers to trunk groups when two or more trunk groups are to be used for ACD applications. This is a display only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter "co" to identify the type of trunk group.
- **SMDR Reports**— Enter "y" to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired customer restriction. Default is "1."
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. SMDR also uses the TAC to identify the trunk groups associated SMDR report. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is "incoming," "outgoing," or "two-way." Default is "two-way."
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are "y" or "n." Default is "n."
- **Dial Access**— Enter 'y' to allow the trunk group to be accessed via a trunk access code; otherwise, enter "n." Default is "y." Access via the ARS feature is allowed regardless of this entry.
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is "99."
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk Type is not "auto/...".

- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A "0" indicates no calls will be held in queue. This field is turned off if the Direction field is "incoming." Default is "0."
- **Administrable Timers Page**— Only displayed for international applications. Entering a "y" causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers page then becomes Page 3 of x. Valid entries are "y" or "n." Default is "n." (International G1.1SE and G1.2SE).
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number, 0 (attendant), **or** leave blank if the Trunk Type field is not "auto."
- **Comm Type**— Indicates if the trunk is to be used for voice, data, alternate voice-data (that is, avd), or alternate voice/voice grade data and 56 Kbps digital data [that is, robbed-bit alternate voice-data (rbavd)] calls. Allowable entries are "avd," "rbavd," "voice," or "data." Type "rbavd" supports access to voice/data SDN service on robbed-bit T1 transmission facilities. Default is "voice." Note that "avd" and "rbavd" types require trunk member ports on a DS1 circuit pack. An "rbavd" type requires that the DS1 circuit pack be administered for robbed-bit signaling.
- **Auth Code**— Enter "y" if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter "n." Default is "n." This field can only be set to "y" if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form.
- **Digit Absorption List**— Enter a digit list absorption number, if required, when this trunk group terminates at a step-by-step office. This field specifies the type of absorption as specified on the System Digit Absorption form. Up to five different forms (lists 0 through 4) may be administered in the System.
- **Prefix-1**— Specifies if the prefix 1 is required for N(0/1)X calls. Allowable entries are "y" and "n." Default is "n."
- **Trunk Flash**— Enter "y" or "n" to indicate if access to customized services provided by a far end (for example, CO) is permitted for this trunk group. The PBX must be directly connected to a far end that provides such services. Default is "n."
- **Toll Restricted**— Enter "y" (yes) if this trunk group is to be toll restricted; otherwise, enter "n" (no). This field only applies for outgoing TAC calls if the originating party is toll restricted. Default is "y."
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint's information transfer capability. The ITC field is displayed on G3i systems for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0." This field is not displayed if the Comm Type field is administered as "voice," nor is it displayed if the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is set to "0." Default is restricted.
- **BCC (Bearer Capability Class)**— Used by the GRS feature and identifies the type of traffic on trunks in the group. The BCC entry is used by far-end tandem switches to select outgoing routing facilities with equivalent BCC classes. Allowable entries are 0, 1,

2, 3, and 4. Default is 0 for "rbavd" and "avd" and 2 for "data." The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Generic 3i Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls.

- **Trunk Type**— Identifies the physical type of CO trunk. It may differ for incoming and outgoing types. Allowable entries are "ground-start," "loop-start," "auto/auto," "auto/delay," "auto/immed," and "auto/wink."
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are "automatic," "tone" or "rotary." Use "automatic" when a cut through mode is required. Note that when "automatic" is used, the switch does not provide dial tone on the associated trunks. Default is "tone."
- **Trunk Termination**— Specifies how the trunk group is terminated. Allowable entries are "600ohms" or "rc"; 600ohms is used when the PBX trunk port is connected to terminal equipment (for example, SLC® carrier or compensators optioned for 600 ohms input impedance) and the distance to the terminal equipment from the System is less than 3000 feet. Enter "rc" (default) in all other cases.
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving CO or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Enter 500 unless the trunk is connected to a step-by-step office. Enter 200 if the trunk is connected to a step-by-step office. If tip-ring open intervals are observed to be longer than normal (that is, 500 ms) during a call setup (possibly due to a connection to an older electro-mechanical office such as a #5 Cross-Bar) the disconnect timing may be increased just enough for reliable operation. Note that increasing the timing may cause longer disconnect times and result in other problems. Proceed with caution. Default is "500."
- **Connected to Toll**— Enter "y" if connected to a CO toll office, otherwise, enter "n" (default). This field is displayed when the Trunk Type field contains an entry of "auto/...." Default is "n."
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is "n." Specifies the loss plan to be used for the trunk group. Allowable entries are "normal" (default) or "low." This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The "low" option (described as the ISL digital low loss plan in *AT&T System 75 and System 85—DS1/DMI/ISDN-PRI Interface*, 555-025-101) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs (satellite PBX connected to main PBX via DS1 tie trunks, main PBX connected to public network via CO trunks).

3. All PBXs have the "low" option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk—voice or AVD interface) loss plans.
 - **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)**— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *AT&T System 75 and System 85—DS1/DNI/ISDN-PRI Interface, 555-025-101.*)
 - **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *AT&T System 75 and System 85 DS1/DNI/ISDN-PRI Interface, 555-025-101.*)
- **Terminal Balanced**— Specifies whether the trunks in the trunk group are balanced. A "y" signifies that the trunks are terminally balanced and an "n" signifies that the trunks are not terminally balanced. Typically, a Trunk Termination field of "600ohm" signifies a balanced trunk group and a field of "rc" signifies a non-balanced trunk group. If the trunks in this group pass the Low Frequency Return Loss test requirements, then they are terminally balanced, and this field should be set to "y." This field is only displayed when the Trunk Type field is "ground-start" or "loop-start." Since most trunks are not balanced, the default is "n."
 - **RA Trunk Loss**— (Remote Access Trunk Loss) Specifies the type of dB loss to be applied to non-terminally balanced trunks (Terminal Balanced field = "n"). The 0dB entry is used in both directions as the default option. If unsatisfactory echo performance (hollowness) is experienced, the field should be reset to 2dB. Allowable entries are "0db" and "2db." This field is only displayed when the Terminal Balanced field entry is "n."

- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are 300, 1200, 2400, 4800, 9600, and 19200. This field is only displayed when the Comm Type field is "avd." Default is "1200."
- **Synchronization**— Enter whether the trunk group will use "sync" (synchronous) or "async" (asynchronous) communications. Default is "async." This field is only displayed when the Comm Type field is "avd."
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are "full" or "half." Default is "full." This field is only displayed when the Comm Type field is "avd."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (International G1.1SE and G1.2SE)
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. When the Receive Answer Supervision field is "y," this field should be set to "0" to disable the firmware time-out. Allowable entries are 0 through 250. Default is "10."
- **Receive Answer Supervision**— Specifies whether or not the trunks provide answer supervision from the network, and is used by the OCM and SMDR features. Answer supervision refers to notification from the far-end that the called party has gone off-hook to answer the call. When answer supervision is not provided, the originating PBX can classify a call as answered using the Answer Supervision Timeout field entry. For trunks over which answer supervision is provided by the network (for example, certain ground-start CO trunks), this field should be set to "y" and the Answer Supervision Timeout field set to "0" to disable the firmware time-out. Receive Answer Supervision must be "n" if the Direction field is "incoming." Default is "n."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are "y" or "n." Default is "n." If "y" is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is "0," the System will not consider long holding calls. Allowable entries are 0 through 10. Default is "1."
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is "0," the System will not consider short holding calls. Allowable entries are 0 through 160. Default is "10."
- **Short Holding Threshold**— Is the number of times that the System will reed a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is "15."

- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are "internal," "external," "both," "none." Enter "internal" if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and "external" to send the data to the 3B CMS. Enter "both" to send the data to both systems for measurement reports or enter "none" if trunk group measurements are not required. System default is "none."
- **Abandoned Call Search**— Enter a "y" if this trunk group will conduct an Abandoned Call Search to identify a ghost call; otherwise, enter "n." Default is "n." This field is only applicable if Trunk Type is "ground-start." Note that the CO must support Abandoned call search for the feature to work properly.

Note: Abandoned Call Search is designed to work with CO trunks (ground start - analog) that *do not* provide disconnect supervision. Central offices that provide disconnect supervision do not require use of the Abandoned Call Search feature. Note that the CO must support Abandoned Call Search for the feature to work properly.
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are "y" or "n." Default is "n."
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are "y" or "n." Default is "y."
- **Suppress # Outpulsing**— Indicates end-to-end signaling begins with (and includes) the "#" when "y" is entered in this field. The final # is suppressed in cases where System would normally outpulse it. This field should be set to "y" when the CO (for example, rotary) or any other facility treats # as an error. Default is "n."

Page 3 of the Form (Administrable Timers) (International G1.1SE and G1.2SE)

Note: This page is only displayed if "y" is entered in the Administrable Timer Page on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is "300."
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is "300."
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "1000."
- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "3000."

- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "3000."
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is "600."
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is "5000."
- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is "130."
- **PPS**— Enter either "10" or "20" to specify the pps (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are "10" or "20." Default is "10."
- **Make (msec)**— Enter the duration of the make interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of five. The field cannot be blank. The default is "40."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of five. The field cannot be blank. The default is "20."
- **Break (msec)**— Enter the duration of the break interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of five. The field cannot be blank. The default is "60."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of five. The field cannot be blank. The default is "30."
- **PPM**— Enter "y" (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter "n" (no). Valid entries are "y" or "n." Default is "n." (This field does not appear for DID, DIOD, Tie, Tandem, or Access trunks.)

Pages 3 through 9 of the Form (Group Member Assignments)

Note: For International Systems, if "y" has been entered in the Administrable Times Page field on Page 1 of the form, the Group Member Assignments will appear on Pages 4 through 10 of the form.

- **Port**— Enter five to six characters. The first character identifies the network (1 to 2, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to 10 characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Night Service and Balance/Loss information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Mode**— Specifies the signaling mode used on Tie Trunks with TN722A, TN722B, TN760B, TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are "e&m" (interface) "simplex" (phantomed), or "protected." This entry must correspond to associated dip switch settings on the circuit pack.
- **Type**— Specifies the type of trunk used. Allowable entries are "t1 stan" (Type 1 Standard), "t1 comp" (Type 1 Compatible), or "type 5."
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is no entry (blank) and internally treated as a 0. This delay serves two purposes:
 1. 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

TRUNK GROUP		Page 1 of 10
Group Number: _	Group Type: <u>CO</u>	SMDR Reports? y
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: _
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? y	Busy Threshold: <u>99</u>	Night Service: ____
Queue Length: <u>0</u>		Incoming Destination: _
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	Digit Absorption List: _
Prefix-1? <u>n</u>	Restriction: <u>code</u>	Allowed Calls List? <u>n</u>
	Trunk Flash?: <u>n</u>	
TRUNK PARAMETERS		
Trunk Type: _____		
Outgoing Dial Type: <u>tone</u>		Disconnect Timing(msec): <u>500</u>
Trunk Termination: <u>cc</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Connected to Toll? <u>n</u>		RA Trunk Loss: <u>0db</u>
Terminal Balanced? <u>n</u>		Duplex: <u>full</u>
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	
Answer Supervision Timeout? <u>10</u>	Receive Answer Supervision? <u>n</u>	

SCREEN 5-63. Central Office Trunk Group Form (Page 1)—Example Only Standard)

Implementation Notes:

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed if the Trunk Type field is "auto/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Terminal Balanced field is only displayed when the Trunk Type field is "ground-start" or "loop-stat" The RA Trunk Loss field is only displayed when the Terminal Balanced field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The Trunk Flash field is only displayed when the Group Type field is "co," "fx," or "Wats."

The ITC (Information Transfer Capability) field appears for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>		
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Abandoned Call Search? <u>n</u>		
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

SCREEN 5-64. Central Office Trunk Group Form (Page 2)—Example Only (Standard)**Implementation Note:**

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS						Page 3 of 9
	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8	_____	_____	_____	_____	_____	_____
9	_____	_____	_____	_____	_____	_____
10	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

SCREEN 5-65. Central Office Trunk Group Form (Page 3)—Example Only (Standard)

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 9 of 9
	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

SCREEN 5-66. Central Office Trunk Group Form (Page 9)—Example Only (Standard)

		TRUNK GROUP	Page 1 of X
Group Number: <u>71</u>	Group Type: <u>CO</u>	SMDR Reports? <u>y</u>	
Group Name: <u>OUTSIDE CALL</u>	COR : <u>1</u>	TAC: <u>601</u>	
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>		
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u>_____</u>	
Queue Length: <u>0</u>	Administrable Timer Page? <u>Y</u>	Incoming Destination: <u>0</u>	
	Auth Code? <u>n</u>	Digit Absorption List: <u>_</u>	
Prefix-1? <u>n</u>	Toll Restriction? <u>y</u>		
TRUNK PARAMETERS			
Trunk Type: <u>loop-start</u>			
Outgoing Dial Type: <u>tone</u>			
Trunk Termination: <u>rc</u>		Disconnect Timing(msec): <u>500</u>	
Terminal Balanced? <u>n</u>		RA Trunk Loss: <u>0db</u>	
Disconnect Supervision? <u>y</u>			
Answer Supervision Timeout: <u>10</u>		Receive Answer Supervision? <u>n</u>	

**SCREEN 5-67. Central Office Trunk Group Form (Page 1)—Example Only
(International G1.1SE and G1.2SE)**

Implementation Notes:

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed if the Trunk Type field is "auto/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Terminal Balanced field is only displayed when the Trunk Type field is "ground-start" or "loop-start." The RA Trunk Loss field is only displayed when the Terminal Balanced field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The Trunk flash field is only displayed when the Group Type field is "co," "fx," or "wats."

TRUNK GROUP		Page 2 of 10
TRUNK FEATURES		
ACA Assignment?	<u>n</u>	Measured? <u>none</u>
Data Restriction?	<u>n</u>	
Abandoned Call Search?	<u>n</u>	Maintenance Tests? <u>y</u>
Suppress # Outpulsing?	<u>n</u>	

**SCREEN 5-63. Central Office Trunk Group Form (Page 2)—Example Only
(International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

ADMINISTRABLE TIMERS		Page 3 of X
Incoming Disconnect msec) :	300	Outgoing Disconnect (msec : 300
		Outgoing Dial Guard (msec : 1000
Incoming Glare Guard msec):	3000	Outgoing Glare Guard (msec : 3000
		Outgoing Rotary Dial Interdigit (msec : 600
Ringing Monitor msec):	5000	Incoming Seizure (msec : 130
OUTPULSING TIMING		
PPS: 10	Make (msec): 40	Break (msec): 60 PPM? n

**SCREEN 5-69. Central Office Trunk Group Administrable Timers Form (Page 3)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The Administrable Timers Form page is only displayed if "y" is entered in the Administrable Timers Page field on Page 1 of the form.

GROUP MEMBER ASSIGNMENTS						Page 4 of 10
	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

SCREEN 5-70. Central Office Trunk Group Form (Page 4)—Example Only
(International G1.1SE and G1.2SE)

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 10 of 10
	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

SCREEN 5-71. Central Office Trunk Group Form (Page 10)—Example Only
(International G1.1SE and G1.2SE)

Implementation Note:

Above Group Member Assignments pages illustrate the resulting pagination when "y" is entered in the "Administrable Timers Page" field on Page 1 of the form; otherwise, page numbers will be the same as for the standard forms.

CPE Trunk Group

Purpose

This form is used to assign a CPE Trunk Group and associated trunk Ports. The trunk group provides access between the System and customer-provided equipment.

Administration Commands

The following administration commands can be used to access the CPE Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

- Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter "cpe" to identify the type of trunk group.
- **SMDR Reports**— Enter "y" to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is "1."

- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are "y" or "n." Default is "n."
- **Dial Access**— Enter "y" to allow the trunk group to be accessed via a trunk access code; otherwise, enter "n." Default is "y." Access via the Automatic Route Selection feature is allowed regardless of this entry.
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is "99."
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A "0" indicates no calls will be held in queue. This field is turned off if the Direction field is "incoming." Default is "0."
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving central office or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Default is "500."
- **End-to-End Signaling**— Specifies the duration (in milliseconds) of touch-tone signal tone which is sent to the far-end for interpretation by devices at that location. The duration time entered must be a multiple of 10. Allowable entries are 60 through 360, or leave blank. Default is "60."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (International G1.1SE and G1.2SE).
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. Allowable entries are 0 through 250. Default is "10."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are "y" or "n." Default is "n." If "y" is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is "0," the System will not consider long holding calls. Allowable entries are 0 through 10. Default is "1."

- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is "0," the System will not consider short holding calls. Allowable entries are 0 through 180. Default is "10."
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is "15."
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are "internal," "external," "both," "none." Enter "internal" if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and "external" to send the data to the 3B CMS. Enter "both" to send the data to both systems for measurement reports or enter "none" if trunk group measurements are not required. System default is "none."
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are "y" or "n." Default is "n."
- **Suppress # Outpulsing**— Indicates end-to-end signaling. Begins with (and includes) the "#" when "y" is entered in this field. The final # is suppressed in cases where System would normally outpulse it. This field should be set to "y" when the CO (for example, rotary) or any other facility treats # as an error. Default is "n."
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are "y" or "n." Default is "y."

Pages 3 through 9 of the Form (Group Member Assignments)

- **Port**— Enter five to six characters. The first character identifies the network (1 to 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to ten characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

TRUNK GROUP		Page 1 of 9
Group Number: <u> </u>	Group Type: <u>cpe</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR : <u>1</u>	TAC: <u> </u>
	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	
Queue Length: <u>0</u>		
TRUNK PARAMETERS		
	Disconnect Timing(msec): <u>500</u>	
End-to-End Signaling: <u>60</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-72. Customer-Provided Equipment Trunk Group Form (Page 1)—
Example Only (Standard)**

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>Done</u>	
Long-Holding Time(hours): <u>1</u>		
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

**SCREEN 5-73. Customer-Provided Equipment Trunk Group Form (Page 2)—
Example Only (Standard)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS

Page 3 of 9

	Port	Name
1:	_____	_____
2:	_____	_____
3:	_____	_____
4:	_____	_____
5:	_____	_____
6:	_____	_____
7:	_____	_____
8:	_____	_____
9:	_____	_____
10:	_____	_____
11:	_____	_____
12:	_____	_____
13:	_____	_____
14:	_____	_____
15:	_____	_____

SCREEN 5-74. Customer-Provided Equipment Trunk Group Form (Page 3)—
Example Only (Standard)

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS

Page 9 of 9

	Port	Name
91:	_____	_____
92:	_____	_____
93:	_____	_____
94:	_____	_____
95:	_____	_____
96:	_____	_____
97:	_____	_____
98:	_____	_____
99:	_____	_____

SCREEN 5-75. Customer-Provided Equipment Trunk Group Form (Page 9)—
Example Only (Standard)

TRUNK GROUP		Page 1 of 9
Group Number: <u>71</u>	Group Type: <u>cpe</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	
Queue Length: <u>0</u>		
TRUNK PARAMETERS		
	Disconnect Timing(msec): <u>500</u>	
End-to-End Signaling: <u>60</u>		
Disconnect Supervision? <u>y</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-76. Customer-Provided Equipment Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G1.2SE)**

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>		
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

**SCREEN 5-77. Customer-Provided Equipment Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS		Page 3 of 9
Port	Name	
1:	_____	_____
2:	_____	_____
3:	_____	_____
4:	_____	_____
5:	_____	_____
6:	_____	_____
7:	_____	_____
8:	_____	_____
9:	_____	_____
10:	_____	_____
11:	_____	_____
12:	_____	_____
13:	_____	_____
14:	_____	_____
15:	_____	_____

**SCREEN 5-78. Customer-provided Equipment Trunk Group Form (Page 3)—
Example Only (International G1.1SE and G1.2SE)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS		Page 9 of 9
Port	Name	
91:	_____	_____
92:	_____	_____
93:	_____	_____
94:	_____	_____
95:	_____	_____
96:	_____	_____
97:	_____	_____
98:	_____	_____
99:	_____	_____

**SCREEN 5-79. Customer-Provided Equipment Trunk Group Form (Page 9)—
Example Only (International G1.1SE and G1.2SE)**

Digital Multiplexed Interface (DMI)—BOS Trunk Group

Purpose

This form is used to assign a DMI-BOS Trunk Group and associated trunk ports. The DMI-BOS Trunk Group allows communications to/from the System using DMI-BOS protocol.

Administration Commands

The following administration commands can be used to access the DMI-BOS Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as "add" or "change."
- **Group Type**— Enter "dmi-bos" to identify the type of trunk group.
- **SMDR Report**— Enter "y" to provide a detailed SMDR report of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is "1."
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is "incoming," "outgoing," or "two-way." Default is "two-way."

- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are "y" or "n." Default is "n."
- **Dial Access**—Enter "y" to allow the trunk group to be accessed via a trunk access code; otherwise, enter "n." Default is "y." Access via the ARS feature is allowed regardless of this entry.
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is "99."
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type is not "auto/...."
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number, 0 (attendant), VDN, or leave blank if the Trunk Type field is not "auto/...."
- **Auth Code**— Enter "y" if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter "n." Default is "n." This field can only be set to "y" if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form.
- **Trunk Type (in/out)**— Identifies the physical type of incoming and outgoing trunks. Allowable entries are listed below.

auto/auto	auto/delay	auto/immed	auto/wink
delay/auto	delay/delay	delay/immed	delay/wink
immed/auto	immed/delay	immed/immed	immed/wink
wink/auto	wink/delay	wink/immed	wink/wink

- **Incoming Rotary Timeout (sec)**— Is the timing interval required by the CO that the System is connected to. If the System is connected to a step-by-step office, 18 or more seconds must be used; if the System is not connected to a step-by-step office, five or more seconds may be used. The maximum value is 99 seconds. Allowable entries are 5 through 99. Default is "5."
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are "tone" or "rotary." Default is "tone."
- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are "tone" or "rotary." Default is "tone."
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving central office or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Default is "500."
- **Digit Treatment**— Indicates if the digits entered are to be absorbed or inserted. No entry indicates no digit absorption or insertion. Allowable entries are "absorption" or "insertion."

- **Digits**— Is the number of digits to be inserted or absorbed. This field is used with the Digit Treatment field. No entry indicates no digit absorption or insertion is done. Allowable entries are 1 to five digits to be absorbed or inserted.
- **Connected to Toll**— Enter "y" if connected to a CO toll office, otherwise, enter "n" (default). This field is displayed when the Trunk Type field contains an entry of "auto/...", "delay/...", "wink/...", or "immed/..." Default is "n."
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is "n." Specifies the loss plan to be used for the trunk group. Allowable entries are "normal" (default) or "low." This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The "low" option (described as the ISL digital low loss plan in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DM/ISDN-PRI Reference, 555-025-101*) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs.
3. All PBXs have the "low" option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk-voice or AVD DS1 interface) loss plans.
 - **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss** (Digital Tie to Digital CO Trunk Loss)— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/ . . .

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference*, 555-025-101.)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference*, 555-025-101.)
- **Incoming Dial Tone**— Indicates whether or not the trunk group will pass on incoming dial t1 to the calling party. Allowable entries are "y" or "n." Default is "y."
- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are "300," "1200," "2400," "4800," "9600," and "19200." Default is "1200."
- **Synchronization**— Enter whether the trunk group will use "sync" (synchronous or "async" (asynchronous) communications. Default is "async."
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are "full" or "half." Default is "full."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (International G1.1SE and G1.2SE).
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. Allowable entries are 0 through 250. Default is "10."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are "y" or "n." Default is "n." If "y" is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is "0," the System will not consider long holding calls. Allowable entries are 0 through 10. Default is "1."
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is "0," the System will not consider short holding calls. Allowable entries are 0 through 160. Default is "10."
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is "15."
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are "internal," "external," "both," "none." Enter "internal" if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and "external" to send the data to the 3B CMS. Enter "both" to send the data to both systems for measurement reports or enter "none" if trunk group measurements are not required. System default is "none."
- **Internal Alert**— Specifies if internal ringing and coverage will be used for incoming calls on this trunk group. Allowable entries are "y" or "n." Default is "n."
- **Data Restriction**— Is used to restrict system features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are "y" or "n." Default is "n."
- **Suppress # Outpulsing**— Indicates end-to-end signaling. Begins with (and includes) the "#" when "y" is entered in this field. The final # is suppressed in cases where the System would normally outpulse it. This field should be set to "y" when the central office (for example, rotary) or any other facility treats #as an error. Default is "n."
- **Maintenance Test**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are "y" or "n." Default is "y."

Pages 3 through 9 of the Form (Group Member Assignments)

- **Port**— Enter five to six characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to ten characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Previously, for System 75, Night Service and Balance/Loss information was entered in the Name field as "NT#..." and "TT#)" This information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Mode**— Specifies the signaling mode used on Tie Trunks with TN722A, TN722B, TN760B, TN767, TN464C (International G1.2SE only) circuit packs. Allowable entries are "e&m" (interface), "simplex" (phantomed), or "protected." This entry must correspond to associated dip switch settings on the circuit pack.
- **Type**— Specifies the signaling type used. Allowable entries are "t1 stan" (Type 1 Standard), "t1 comp" (Type 1 Compatible), or "type 5."
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is no entry (blank) and internally treated as a 0. This delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

TRUNK GROUP		Page 1 of 9
Group Number: <u> </u>	Group Type: <u>dmi-bos</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u> </u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u> </u>
	Incoming Destination: <u>-</u>	
Auth Code? <u>n</u>		
TRUNK PARAMETERS		
Trunk Type (in/out): <u> </u>	Incoming Rotary Timeout(sec): <u>5</u>	
outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing (msec): <u>500</u>	
Digit Treatment: <u> </u>	Digits: <u> </u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-80. Digital Multiplexed Interface Trunk Group Form (Page 1)—
Example Only (Standard)**

Implementation Note:

The Connected to Toll and DTT to DCO Loss fields are only displayed if the Trunk Type field is "auto/. . ." "delay/...", "wink/...", or "immed/...."

The STT Loss field is only displayed when the Connected to Toll field is "n."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>	Internal Alert? <u>n</u>	
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>	Maintenance Tests? <u>y</u>	
Suppress # Outpulsing? <u>n</u>		

**SCREEN 5-81. Digital Multiplexed Interface Trunk Group Form (Page 2)—
Example Only (Standard)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS					Page 3 of 9
Port	Name	Mode	Type	Ans Delay	
1: _____	_____	_____	_____	_____	
2: _____	_____	_____	_____	_____	
3: _____	_____	_____	_____	_____	
4: _____	_____	_____	_____	_____	
5: _____	_____	_____	_____	_____	
6: _____	_____	_____	_____	_____	
7: _____	_____	_____	_____	_____	
8: _____	_____	_____	_____	_____	
9: _____	_____	_____	_____	_____	
10: _____	_____	_____	_____	_____	
11: _____	_____	_____	_____	_____	
12: _____	_____	_____	_____	_____	
13: _____	_____	_____	_____	_____	
14: _____	_____	_____	_____	_____	
15: _____	_____	_____	_____	_____	

**SCREEN 5-82. Digital Multiplexed Interface Trunk Group Form (Page 3)—
Example Only (Standard)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS					Page 9 of 9
Port	Name	Mode	Type	Ans Delay	
91: _____	_____	_____	_____	_____	
92: _____	_____	_____	_____	_____	
93: _____	_____	_____	_____	_____	
94: _____	_____	_____	_____	_____	
95: _____	_____	_____	_____	_____	
96: _____	_____	_____	_____	_____	
97: _____	_____	_____	_____	_____	
98: _____	_____	_____	_____	_____	
99: _____	_____	_____	_____	_____	

**SCREEN 5-83. Digital Multiplexed Interface Trunk Group Form (Page 9)—
Example Only (Standard)**

TRUNK GROUP		Page 1 of 9
Group Number: <u>71</u>	Group Type: <u>dmi-bos</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u></u>
		Incoming Destination: <u>Q</u>
	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type (in/out): <u>auto/auto</u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing (msec): <u>500</u>	
Digit Treatment: <u></u>	Digits: <u></u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>
Disconnect Supervision? <u>y</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-84. Digital Multiplexed Interface Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The Connected to Toll and DTT to DCO Loss fields are only displayed if the Trunk Type field is "auto/...", "delay/...", "wink/...", or "immed/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

Page 2 of 9

TRUNK FEATURES

ACA Assignment? <u>n</u>	Measured? <u>Done</u>
Internal Alert? <u>n</u>	
Data Restriction? <u>n</u>	
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>

**SCREEN 5-85. Digital Multiplexed Interface Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS					Page 3 of 9
Port	Name	Mode	Type	Ans Delay	
1:					
2:					
3:					
4:					
5:					
6:					
7:					
8:					
9:					
10:					
11:					
12:					
13:					
14:					
15:					

**SCREEN 5-86. Digital Multiplexed Interface Trunk Group Form (Page 3)—
Example Only (International G1.1SE and G12SE)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS					Page 9 of 9
Port	Name	Mode	Type	Ans Delay	
91:					
92:					
93:					
94:					
95:					
96:					
97:					
98:					
99:					

**SCREEN 587. Digital Multiplexed Interface Trunk Group Form (Page 9)—
Example Only (International G1.1SE and G1.2SE)**

Direct Inward Dialing Trunk Group

Purpose

This form is used to assign a Direct Inward Dialing (DID) Trunk Group and associated trunk ports. A DID Trunk Group allows an incoming call from the exchange network to reach a specific extension number directly without attendant intervention.

Administration Commands

The following administration commands can be used to access the DID Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter "did" to identify the type of trunk group.
- **SMDR Reports**— Enter "y" to provide a detailed SMDR record of calls made on all trunks in the trunk group; otherwise, enter "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is "1."
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).

- **Administrable Timers Page**— Only displayed for international applications. Entering a “y” causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers page then becomes Page 3 of x. Valid entries are “y” or “n.” Default is “n.” (International G1.2SE only).
- **Auth Code**— Enter “y” if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter “n.” Default is “n.” This field can only be set to “y” if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form.
- **Trunk Type**— Identifies the physical type of DID trunk. Allowable entries are “immed-start” or “wink-start.”
- **Incoming Rotary Timeout (sec)**— Is the timing interval required by the CO that the System is connected to. If the System is connected to a step-by-step office, 18 or more seconds must be used; if the System is not connected to a step-by-step office, five or more seconds may be used. The maximum value is 99 seconds. Allowable entries are 5 through 99. Default is “5.”
- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are “tone” or “rotary.” Default is “tone.”
- **Trunk Termination**— Specifies how the trunk group is terminated. The trunk group can terminate in a resistance of 600 ohms, or a resistor capacitor (rc) network. Allowable entries are “600ohms” or “rc”; 600ohms is used when the PBX trunk port is connected to terminal equipment (for example, SLC carriers or compensators optioned for 600 ohms input impedance) and the distance to the terminal equipment from the System is less than 3000 feet. Enter “rc” in all other cases. Default is “rc.”
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving CO or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Enter “500” unless the trunk is connected to a step-by-step office. Enter “200” if the trunk is connected to a step-by-step office. Default is “500.”
- **Digit Treatment**— Indicates if digits are to be absorbed or inserted. A blank entry indicates no digit absorption or insertion. Allowable entries are “absorption” and “insertion.”
- **Digits**— Is the number of digits to be inserted or absorbed. This field is used with the Digit Treatment field. A blank entry indicates no digit insertion or absorption. Allowable entries are the number of digits to be absorbed (1 through 5) or the actual digits to be inserted (up to five digits). This means that if the Digit Treatment field is absorption, then the Digits field is the number of digits from the beginning of the dialed number. One to 5 digits can be absorbed. If the Digit Treatment is insertion, then the Digits field contains the actual digits that are inserted into the beginning of the dialed number. A 1- to 5-digit number can be inserted into the beginning of the dialed number.
- **Expected Digits**— Enter the number of digits that the CO sends for an incoming connection. Default is “0.”

- **Terminal Balanced**— Specifies whether the trunks in the trunk group are balanced. A “y” signifies that the trunks are terminally balanced and an “n” signifies that the trunks are not terminally balanced. Typically, a Trunk Termination field of “600ohm” signifies a balanced trunk group and a field of “rc” signifies a non-balanced trunk group. If the trunks in this group pass the Low Frequency Return Loss test requirements, then they are terminally balanced, and this field should be set to “y.” This field is only displayed when the Trunk Type field is “immed-start” or “wink-start.” Since most trunks are not balanced, the default is “n.”
- **RA Trunk Loss (Remote Access Trunk Loss)**— Specifies the type of dB loss to be applied to non-terminally balanced trunks (Terminal Balanced field= “n”). The 0dB entry is used in both directions as the default option. If unsatisfactory echo performance (hollowness) is experienced, the field should be reset to 2dB. Allowable entries are “0db” and “2db.” This field is only displayed when the Terminal Balanced field is “n.”

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are “y” or “n.” Default is “n.” If “y” is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is “0,” the System will not consider long holding calls. Allowable entries are 0 through 10. Default is “1.”
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is “0,” the System will not consider short holding calls. Allowable entries are 0 through 160. Default is “15.”
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30.
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are “internal,” “external,” “both,” “none.” Enter “internal” if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and “external” to send the data to the 3B CMS. Enter “both” to send the data to both systems for measurement reports or enter “none” if trunk group measurements are not required. System default is “none.”
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are “y” or “n.” Default is “n.”
- **Disconnect Supervision**— Enter “y” (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter “n” (no). Default is “y.” (International G1.1SE and G1.2SE.)

- **Suppress # Outpulsing**— Indicates end-to-end signaling. Begins with (and includes) the “#” when “y” is entered in this field. The final # is suppressed in cases where System would normally outpulse it. This field should be set to “y” when the central office (for example, rotary) or any other facility treats # as an error. Default is “n.”
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are “y” or “n.” Default is “y.”

Page 3 of the Form (Administrable Timers) (International G1.2SE only)

Note: This page is only displayed if “y” is entered in the Administrable Timers Page field on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “1000.”
- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is “600.”
- **Ringling Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is “5000.”
- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is “130.”
- **PPS**— Enter either “10” or “20” to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are “10” or “20.” Default is “10.”

- **Make (msec)**— Enter the duration of the make interval while the system is outputting digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is

- **Break (msec)**— Enter the duration of the break interval while the system is outputting digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is "80."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "30."

- **PPM**— Enter "y" (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter "n" (no). Valid entries are "y" or "n." Default is "n." (This field does not appear for DID, Tie, Tandem, or Access trunks.)

Pages 3 through 9 of the Form (Group Member Assignments)

Note: For International Systems, if "y" has been entered in the Administrable Times Page field on Page 1 of the form, the Group Member Assignments will appear on Pages 4 through 10 of the form.

- **Port**— Enter five to six characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to ten characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

TRUNK GROUP		Page 1 of 9
Group Number: —	Group Type: <u>did</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC : —
	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type: —	Incoming Rotary Timeout(sec : <u>5</u>	
	Incoming Dial Type: <u>tone</u>	
Trunk Termination: <u>rc</u>	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: —	Digits: —	
Expected Digits: <u>Q</u>		
Terminal Balanced: <u>n</u>	RA Trunk Loss: <u>0db</u>	

**SCREEN 5-88. Direct Inward Dialing Trunk Group Form (Page 1)—
Example Only (Standard)**

Implementation Note:

The Terminal Balanced field is only displayed if the Trunk Type field is “immed-start” or “wink-start.”

The RA Trunk Loss field is only displayed if the Terminal Balanced field is “n.”

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>		
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

**SCREEN 5-89. Direct Inward Dialing Trunk Group Form (Page 2)—
Example Only (Standard)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is “y”:

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS		Page 3 of 9
Port	Name	
1: _____	_____	
2: _____	_____	
3: _____	_____	
4: _____	_____	
5: _____	_____	
6: _____	_____	
7: _____	_____	
8: _____	_____	
9: _____	_____	
10: _____	_____	
11: _____	_____	
12: _____	_____	
13: _____	_____	
14: _____	_____	
15: _____	_____	

**SCREEN 5-90. Direct Inward Dialing Trunk Group Form (Page 3)—
Example Only (Standard)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS		Page 9 of 9
Port	Name	
91: _____	_____	
92: _____	_____	
93: _____	_____	
94: _____	_____	
95: _____	_____	
96: _____	_____	
97: _____	_____	
98: _____	_____	
99: _____	_____	

**SCREEN 5-91. Direct Inward Dialing Trunk Group Form (Page 9)—
Example Only (Standard)**

TRUNK GROUP		Page 1 of x
Group Number: <u>71</u>	Group Type: <u>did</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Administrable Timer Page? <u>y</u>		
Auth Code? <u>n</u>		
TRUNK PARAMETERS		
Trunk Type: <u>immed-start</u>	Incoming Rotary Timeout(sec): <u>5</u>	
	Incoming Dial Type: <u>tone</u>	
Trunk Termination: <u>rc</u>	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: _____	Digits: _____	
Expected Digits: <u>_</u>		
Terminal Balanced: <u>n</u>	RA Trunk Loss: <u>0db</u>	
Disconnect Supervision? <u>y</u>		

**SCREEN 5-92. Direct Inward Dialing Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The Terminal Balanced field is only displayed if the Trunk Type field is "immed-start" or "wink-start."

The RA Trunk Loss field is only displayed if the Terminal Balanced field is "n."

TRUNK FEATURES

ACA Assignment? n Measured? noneData Restriction? nSuppress # Outpulsing? n Maintenance Tests? y**SCREEN 5-93. Direct Inward Dialing Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)****Implementation Note:**

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

Page 3 of x

ADMINISTRABLE TIMERS

Incoming Disconnect (msec): 300	Outgoing Disconnect (msec): 300
	Outgoing Dial Guard (msec): 1000
Incoming Glare Guard (msec): 3000	Outgoing Glare Guard (msec): 3000
	Outgoing Rotary Dial Interdigit (msec): 600
Ringing Monitor (msec): 5000	Incoming Seizure (msec): 130

OUTPULSING TIMING

PPS: 10	Make (msec): 40	Break (msec): 60	PPM? n

**SCREEN 5-94. Direct Inward Dial Trunk Group Administrable Timers (Page 3)—
Example Only (International G1.2SE)**

Implementation Note:

This page is only displayed if "y" is entered in the Administrable Timers Page field on Page 1.

GROUP MEMBER ASSIGNMENTS

Page 4 of 10

	Port	Name
1:	_____	_____
2:	_____	_____
3:	_____	_____
4:	_____	_____
5:	_____	_____
6:	_____	_____
7:	_____	_____
8:	_____	_____
9:	_____	_____
10:	_____	_____
11:	_____	_____
12:	_____	_____
13:	_____	_____
14:	_____	_____
15:	_____	_____

SCREEN 5-95. Direct Inward Dialing Trunk Group Form (Page 4)—
Example Only (International G1.1SE and G1.2SE)

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS

Page 10 of 10

	Port	Name
91:	_____	_____
92:	_____	_____
93:	_____	_____
94:	_____	_____
95:	_____	_____
96:	_____	_____
97:	_____	_____
98:	_____	_____
99:	_____	_____

SCREEN 5-96. Direct Inward Dialing Trunk Group Form (Page 10)—
Example Only (International G1.1SE and G1.2SE)

Implementation Note:

Above Group Member Assignments page illustrate the resulting pagination when “y” is entered in the “Administrable Timers Page” field on page 1 of the form; otherwise, page numbers will be 3 through 9.

Direct Inward and Outward Dialing Trunk Group (International G1.2SE Only)

Note: The TN429D1OD Trunk circuit pack is used with G1.2SE systems in Japan. See “Direct Inward/Outward Dial (DIOD)” section in Chapter 4 for more information.

Purpose

This form is used to assign a Direct Inward and Outward Dialing (DIOD) trunk group and associated trunk ports. The TN429 DIOD trunk circuit pack allows calls from a local exchange to be made to a subscriber on a PBX system without connecting through the attendant console.

Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. Assign consecutive Group Numbers to trunk groups when two or more trunk groups are to be used for ACD applications. This is a display only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter “co” to identify the type of trunk group.
- **SMDR Reports**— Enter “y” to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter “n.” Default is “y.”
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is “OUTSIDE CALL.”
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired customer restriction. Default is “1.”
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. SMDR also uses the TAC to identify the trunk groups associated SMDR report. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is “incoming,” “outgoing,” or “two-way.” Default is “two-way.”
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are “y” or “n.” Default is “n.”
- **Dial Access**— Enter “y” to allow the trunk group to be accessed via a trunk access code; otherwise, enter “n.” Default is “y.” Access via the ARS feature is allowed regardless of this entry.

- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is "99."
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk Type is not "auto/...".
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A "0" indicates no calls will be held in queue. This field is turned off if the Direction field is "incoming." Default is "0."
- **Administrable Timers Page**— Only displayed for international applications. Entering a "y" causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers page then becomes Page 3 of x. Valid entries are "y" or "n." Default is "n." (International G1.1SE and G1.2SE).
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk Type field is not "auto."
- **Comm Type**— Indicates if the trunk is to be used for voice, data, alternate voice-data (that is, avd), or alternate voice/voice grade data and 56 Kbps digital data [that is, robbed-bit alternate voice-data (rbavd)] calls. Allowable entries are "avd," "rbavd," "voice," or "data." Type "rbavd" supports access to voice/data SDN service on robbed-bit T1 transmission facilities. Default is "voice." Note that "avd" and "rbavd" types require trunk member ports on a DS1 circuit pack. An "rbavd" type requires that the DS1 circuit pack be administered for robbed-bit signaling.
- **Auth Code**— Enter "y" if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter "n." Default is "n." This field can only be set to "y" if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form.
- **Digit Absorption List**— Enter a digit list absorption number, if required, when this trunk group terminates at a step-by-step office. This field specifies the type of absorption as specified on the System Digit Absorption form. Up to five different forms (lists 0 through 4) maybe administered in the System.
- **Prefix-1**— Specifies if the prefix 1 is required for N(0/1)X calls. Allowable entries are "y" and "n." Default is "n."
- **Trunk Flash**— Enter "y" or "n" to indicate if access to customized services provided by a far end (for example, CO) is permitted for this trunk group. The PBX must be directly connected to a far end that provides such services. Default is "n."
- **Toll Restricted**— Enter "y" (yes) if this trunk group is to be toll restricted; otherwise, enter "n" (no). This field only applies for outgoing TAC calls if the originating party is toll restricted. Default is "y."

- **BCC (Bearer Capability Class)**— Used by the GRS feature and identifies the type of traffic on trunks in the group. The BCC entry is used by far-end tandem switches to select outgoing routing facilities with equivalent BCC classes. This field is always displayed. The Comm Type field entry is “avd,” “rbavd,” or “data.” Allowable entries are 0, 1, 2, 3, and 4. Default is 0 for “bavd” and “avd” and 2 for “data.”

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Generic 3i Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls.

- **Trunk Type**— Enter “loop-start” for DIOD trunk types. Default is blank. Entering “loop-start” causes the fields Terminal Balanced and RA Trunk Loss to appear.
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are “tone” or “rotary.” Default is “tone.”
- **Trunk Termination**— Specifies how the trunk group is terminated. Allowable entries are “600ohms” or “rc”; 600ohms is used when the PBX trunk port is connected to terminal equipment (for example, SLC carrier or compensators optioned for 600 ohms input impedance) and the distance to the terminal equipment from the System is less than 3000 feet. Enter “rc” (default) in all other cases.
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving CO or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Enter 500 unless the trunk is connected to a step-by-step office. Enter 200 if the trunk is connected to a step-by-step office. If tip-ring open intervals are observed to be longer than normal (that is, 500 ms) during a call setup (possibly due to a connection to an older electro-mechanical office such as a #5 Cress-Bar) the disconnect timing may be increased just enough for reliable operation. Note that increasing the timing may cause longer disconnect times and result in other problems. Proceed with caution. Default is “500.”
- **Connected to Toll**— Enter “y” if connected to a CO toll office, otherwise, enter “n” (default). This field is displayed when the Trunk Type field contains an entry of “auto/....” Default is “n.”
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is “n.” Specifies the loss plan to be used for the trunk group. Allowable entries are “normal” (default) or “low.” This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The “low” option (described as the ISL digital low loss plan in *AT&T System 75 and System 85—DS1/DMII/ISDN-PRI Interface*, 555-025-101) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs (satellite PBX connected to main PBX via DS1 tie trunks, main PBX connected to public network via CO trunks).

3. All PBXs have the "low" option available
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk—voice or AVD interface) loss plans.
- **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)**— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *AT&T System 75 and System 85—DS1/DNI/ISDN-PRI Interface, 555-025-101.*)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *AT&T System 75 and System 85 DS1/DNI/ISDN-PRI Interface, 555-025-101.*)
- **Terminal Balanced**— Specifies whether the trunks in the trunk group are balanced. A "y" signifies that the trunks are terminally balanced and an "n" signifies that the trunks are not terminally balanced. Typically, a Trunk Termination field of "600ohm" signifies a balanced trunk group and a field of "rc" signifies a non-balanced trunk group. If the trunks in this group pass the Low Frequency Return Loss test requirements, then they are terminally balanced, and this field should be set to "y." This field is only displayed when the Trunk Type field is "ground-start" or "loop-start." Since most trunks are not balanced, the default is "n."

- **RA Trunk Loss**— (Remote Access Trunk Loss) Specifies the type of dB loss to be applied to non-terminally balanced trunks (Terminal Balanced field= "n"). The 0dB entry is used in both directions as the default option. If unsatisfactory echo performance (hollowness) is experienced, the field should be reset to 2dB. Allowable entries are "0db" and "2db." This field is only displayed when the Terminal Balanced field entry is "n."
- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are 300, 1200, 2400, 4800, 9600, and 19200. This field is only displayed when the Comm Type field is "avd." default is "1200."
- **Synchronization**— Enter whether the trunk group will use "sync" (synchronous) or "async" (asynchronous) communications. Default is "async." This field is only displayed when the Comm Type field is "avd."
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are "full" or "half." Default is "full." This field is only displayed when the Comm Type field is "avd."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (International G1.1SE and G1.2SE)
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. When the Receive Answer Supervision field is "y," this field should be set to "0" to disable the firmware time-out. Allowable entries are 0 through 250. Default is "10."
- **Receive Answer Supervision**— Specifies whether or not the trunks provide answer supervision from the network, and is used by the OCM and SMDR features. Answer supervision refers to notification from the far-end that the called party has gone off-hook to answer the call. When answer supervision is not provided, the originating PBX can classify a call as answered using the Answer Supervision Timeout field entry. For trunks over which answer supervision is provided by the network (for example, certain ground-start CO trunks), this field should be set to "y" and the Answer Supervision Timeout field set to "0" to disable the firmware time-out. Receive Answer Supervision must be "n" if the Direction field is "incoming." Default is "n."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are "y" or "n." Default is "n." If "y" is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is "0," the System will not consider long holding calls. Allowable entries are 0 through 10. Default is "1."

- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is "0," the System will not consider short holding calls. Allowable entries are 0 through 160. Default is "10."
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is "15."
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are "internal," "external," "both," "none." Enter "internal" if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and "external" to send the data to the 3B CMS. Enter "both" to send the data to both systems for measurement reports or enter "none" if trunk group measurements are not required. System default is "none."
- **Abandoned Call Search**— Enter a "y" if this trunk group will conduct an Abandoned Call Search to identify a ghost call; otherwise, enter "n." Default is "n." This field is only applicable if Trunk Type is "ground-start." Note that the CO must support Abandoned call search for the feature to work properly.
 - Note:** **Abandoned** Call Search is designed to work with CO trunks (ground start - analog) that *do not* provide disconnect supervision. COs that provide disconnect supervision do not require use of the Abandoned Call Search feature. Note that the CO must support Abandoned Call Search for the feature to work properly.
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are "y" or "n." Default is "n."
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are "y" or "n." Default is "y."
- **Suppress # Outpulsing**— Indicates end-to-end signaling begins with (and includes) the "#" when "y" is entered in this field. The final # is suppressed in cases where System would normally outpulse it. This field should be set to "y" when the CO (for example, rotary) or any other facility treats # as an error. Default is "n."

Note: This page is only displayed if "y" is entered in the Administrable Timer Page on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is "300."
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is "300."
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "1000."

- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "3000."
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "3000."
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outputted by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is "600."
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is "5000."
- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is "130."
- **PPS**— Enter either "10" or "20" to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are "10" or "20." Default is "10."
- **Make (msec)**— Enter the duration of the make interval while the system is outputting digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is "40."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "20."
- **Break (msec)**— Enter the duration of the break interval while the system is outputting digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is "60."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "30."
- **PPM**— Enter "y" (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter "n" (no). Valid entries are "y" or "n." Default is "n." (This field does not appear for DID, Tie, Tandem, or Access trunks.)

Pages 4 through 10 of the Form (Group Member Assignments)

[Pages 3 through 9 of the Form (Group Member Assignments Administrable Timer Page field is NOT enabled on Page 1.]

- **Port**— Enter five to six characters. The first character identifies the network (1 through 2, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to ten characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Previously, System 75 Night Service and Balance/Loss information was entered in the Name field as “NT#...” and “TT#...” This information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Mode**— Specifies the signaling mode used on Tie Trunks with TN722A, TN722B, TN760B, TN767, or TN464C (international G1.2SE only) circuit packs. Allowable entries are “e&m” (interface), “simplex” (phantomed), or “protected.” This entry must correspond to associated dip switch settings on the circuit pack.
- **Type**— Specifies the type of trunk used. Allowable entries are “t1 stan” (Type 1 Standard), “t1 comp” (Type 1 Compatible), or “type 5.”
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is no entry (blank) and internally treated as a zero. This delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

TRUNK GROUP		Page 1 of x
Group Number: <u>71</u>	Group Type: <u>diod</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	
Queue Length: <u>0</u>	Administrable Timer Page? <u>y</u>	
	Auth Code? <u>n</u>	Digit Absorption List: <u>_</u>
Prefix-1? <u>y</u>	Toll Restricted? <u>y</u>	
TRUNK PARAMETERS		
Trunk Type: <u>loop-start</u>		
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
Trunk Termination: <u>rc</u>		
Digit Treatment:	Digits:	
Expected digits:		
Terminal Balanced? <u>n</u>	RA Trunk Loss: <u>0db</u>	

**SCREEN 5-97. Direct Inward and Outward Dial Trunk Group Form (Page 1)—
Example Only (International G1.2SE only)**

Implementation Notes:

The BCC field is only displayed when ISDN-PRI is optioned for on the System-Parameters Customer-Options form and the Comm Type field is "rbavd," "avd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed if the Trunk Type field is "auto"

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Terminal Balanced field is only displayed when the Trunk Type field is "ground-start" or "loop-start." The RA Trunk Loss field is only displayed when the Terminal Balanced field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

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TRUNK FEATURES

ACA Assignment? <u>n</u>	Measured? <u>Done</u>
Data Restriction? <u>n</u>	
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>

**SCREEN 5-98. Direct Inward and Outward Dial Trunk Group Form (Page 2)—
Example Only (International G1.2SE only)**

Implementation Note:

The Terminal Balanced field is only displayed if the Trunk Type field is “immed-start” or “wink-start.”

The RA Trunk Loss field is only displayed if the Terminal Balanced field is “n.”

Page 3 of 10

ADMINISTRABLE TIMER

Incoming Disconnect (msec): 300	Outgoing Disconnect (msec): 300
	Outgoing Dial Guard (msec): 1000
Incoming Glare Guard (msec): 3000	Outgoing Glare Guard (msec): 3000
	Outgoing Rotary Dial Interdigit (msec): 600
Ringing Monitor (msec): 5000	Incoming Seizure (msec): 130

OUTPULSING TIMING

PPS: 10	Make (msec): 40	Break (msec): 60	PPM? n

**SCREEN 5-99. Direct Inward and Outward Dial Trunk Group Administrable Timers
Page—Example Only**

implementation Note:

This page is only displayed if “y” is entered in the Administrable Timers Page field on Page 1.

GROUP MEMBER ASSIGNMENTS		Page 4 of 10
Port	Name	
1: _____	_____	
2: _____	_____	
3: _____	_____	
4: _____	_____	
5: _____	_____	
6: _____	_____	
7: _____	_____	
8: _____	_____	
9: _____	_____	
10: _____	_____	
11: _____	_____	
12: _____	_____	
13: _____	_____	
14: _____	_____	
15: _____	_____	

**SCREEN 5-100. Direct Inward/Outward Trunk Group Form (Page 4)—
Example Only (International G1.2SE only)**

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS		Page 10 of 10
Port	Name	
91: _____	_____	
92: _____	_____	
93: _____	_____	
94: _____	_____	
95: _____	_____	
96: _____	_____	
97: _____	_____	
98: _____	_____	
99: _____	_____	

**SCREEN 5-101. Direct Inward/Outward Trunk Group Form (Page 10)—
Example Only (International G1.2SE only)**

Implementation Note:

Above Group Member Assignments pages illustrate the resulting pagination when “y” is entered in the “Administrable Timers Page” field on Page 1 of the form; otherwise, Page numbers will be 3 through 9.

Foreign Exchange Trunk Group

Purpose

This form is used to assign a Foreign Exchange (FX) Trunk Group and associated trunk ports. The FX Trunk Group allows a connection between a distant central office and the System.

Administration Commands

The following administration commands can be used to access the FX Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. Assign consecutive Group Numbers to trunk groups when two or more trunk groups are to be used for ACD applications. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter “fx” to identify the type of trunk group.
- **SMDR Reports**— Enter “y” to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter “n.” Default is “y.”
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is “OUTSIDE CALL.”
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is “1.”
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. A different TAC must be assigned to each trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is “incoming,” “outgoing,” or “two-way.” Default is “two-way.”

- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are “y” or “n.” Default is “n.”
- **Dial Access**— Enter “y” to allow the trunk group to be accessed via a trunk access code; otherwise, enter “n.” Default is “y.” Access via the ARS feature is allowed regardless of this entry.
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is “99.”
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk Type is not “auto....”
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A “0” indicates no calls will be held in queue. This field is turned off if the Direction field is “incoming.” Default is “0.”
- **Administrable Timers Page**— Only displayed for international applications. Entering a “y” causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers page then becomes Page 3 of x. Valid entries are “y” or “n.” Default is “n.” (International G1.2SE only).
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk type is not “auto/....”
- **Comm Type**— Indicates if the trunk is to be used for voice, data, alternate voice-data (that is, avd), or alternate voice/voice grade data and 56 Kbps digital data [that is, robbed-bit alternate voice-data (rbavd)] calls. Allowable entries are “avd,” “rbavd,” “voice,” or “data.” Type “rbavd” supports access to voice/data SDN service on robbed-bti T1 transmission facilities. Default is “voice.” Note that “avd” and “rbavd” types require trunk member ports on a DS1 circuit pack. An “rbavd” type requires that the DS1 circuit pack be administered for robbed-bit signaling.
- **Auth Code**— Enter “y” if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter “n.” Default is “n.” This field can only be set to “y” if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form.
- **Digit Absorption List**— Enter a digit list absorption number, if required, when this trunk group terminates at a step-by-step office. This field specifies the type of absorption as specified on the associated Digit Absorption form. Up to five different forms (lists 0 through 4) maybe administered in the System.
- **Prefix-1**— Specifies if the prefix 1 is required for N(0/1)X calls. Allowable entries are “y” or “n.” Default is “n.”
- **Trunk Flash**— Enter “y” or “n” to indicate if access to customized services provided by a far end (for example, CO) is permitted for this trunk group. The PBX must be directly connected to a far end that provides such services. Default is “n.”

- **Toll Restricted**— Enter “y” (yes) if this trunk group is to be toll restricted; otherwise, enter “n” (no). This field only applies for outgoing TAC calls if the originating party is toll restricted. Default is “y.”
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint’s information transfer capability. The ITC field is displayed on G3i systems for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as “data,” “avd,” or “rbavd” and the BCC field is not set to “0.” This field is not displayed if the Comm Type field is administered as “voice,” nor is it displayed if the Comm Type field is administered as “data,” “avd,” or “rbavd” and the BCC field is set to “0.” Default is “restricted.”
- **BCC (Bearer Capability Class)**— Used by the GRS feature and identifies the type of traffic on trunks in the group. The BCC entry is used by far-end tandem switches to select outgoing routing facilities with equivalent BCC classes. Allowable entries are 0, 1, 2, 3, and 4. Default is 0 for “avd and “rbavd,” and 2 for “data.” The BCC field is displayed when the Comm Type is “avd,” “rbavd,” or “data.”

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Generic 3i Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls.

- **Trunk Type**— Identifies the physical type of FX trunk. It may differ for incoming and outgoing types. Allowable entries are “ground-start,” “loop-start,” “auto/auto,” “auto/delay,” “auto/immed,” and “auto/wink.”
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are “automatic,” “tone” or “rotary.” Default is “tone.”
- **Trunk Termination**— Specifies how the trunk group is terminated. The trunk group can terminate in a resistance of 600ohms, or a resistor capacitor (rc) network. Allowable entries are “600ohms” or “rc”; 600ohms is used for short loops and rc is used for long loops. Default is “rc.”
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving CO or far-end PBX. The time interval must be in increments of 10 (from 140 through 2550 milliseconds). Default is “500.”
- **Connected to Toll**— Enter “y” if connected to a CO toll office, otherwise, enter “n” (default). This field is displayed when the Trunk Type field contains an entry of “auto/....”
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is “n.” Specifies the loss plan to be used for the trunk group. Allowable entries are “normal” (default) or “low.” This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The “low” option (described as the ISL digital low loss plan in *DEFINITY® 75/85 Communications System and System 75 and System 85 DS1/DMI/ISDN-PRI Interface*, 555-025-101 should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs (satellite PBX connected to main PBX via DS1 tie trunks, main PBX connected to public network via CO trunks).
3. All PBXs have the "low" option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk-voice or AVD DS1 interface) loss plans.
 - **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)**— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/.... Valid entries are "normal" (default) or "low."

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *AT&T System 75 and System 85—DS1/DM1/ISDN-PRI Interface, 555-025-101.*)
 - **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. Which the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *AT&T System 75 and System 85 DS1/DM1/ISDN-PRI Interface, 555-025-101.*)
- **Terminal Balanced**— Specifies whether the trunks in the trunk group are balanced. A "y" signifies that the trunks are terminally balanced and an "n" signifies that the trunks are not terminally balanced. Typically, a Trunk Termination field of "600ohm" signifies a balanced trunk group and a field of "rc" signifies a non-balanced trunk group. If the trunks

in this group pass the Low Frequency Return Loss test requirements, then they are terminally balanced, and this field should be set to "y." This field is only displayed when the Trunk Type field is "ground-start," "loop-start," "immed-start," or "wink-start." Since most trunks are not balanced, the default is "n."

- **RA Trunk Loss**— (Remote Access Trunk Loss) Specifies the type of dB loss to be applied to non-terminally balanced trunks (Terminal Balanced field= "n"). The 0dB entry is used in both directions as the default option. If unsatisfactory echo performance (hollowness) is experienced, the field should be reset to 2dB. Allowable entries are "0db" and "2db." This field is only displayed when the Terminal Balanced field entry is "n."
- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are "300," "1200," "2400," "4800," "9600," and "19200." Default is "1200." This field is only displayed when the Comm Type field is "avd."
- **Synchronization**— Enter whether the trunk group will use "sync" (synchronous) or "async" (asynchronous) communications. Default is "async." This field is only displayed when the Comm Type field is "avd."
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are "full" or "half." Default is "full." This field is only displayed when the Comm Type field is "avd."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (International G1.1SE and G1.2SE).
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. When the Receive Answer Supervision field is "y," this field should be set to "0" to disable the firmware time-out. Allowable entries are 0 through 250. Default is "10."
- **Receive Answer Supervision**— Specifies whether or not the trunks provide answer supervision from the network and is used by the OCM and SMDR features. Answer supervision refers to notification from the far-end that the called party has gone off-hook to answer the call. When answer supervision is not provided, the originating PBX can classify a call as answered using the "Answer Supervision Timeout" field entry. For trunks over which answer supervision is provided by the network (for example, certain ground-start CO trunks), this field is set to "y" and the Answer Supervision field is set to "0" to disable the firmware time-out. Receive Answer Supervision must be "n" if the Direction field entry is "incoming." Default is "n."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are "y" or "n." Default is "n." If "y" is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is "0," the System will not consider long holding calls. Allowable entries are 0 through 10. Default is "1."

- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is “0,” the System will not consider short holding calls. Allowable entries are 0 through 160. Default is “10.”
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is “15.”
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are “internal,” “external,” “both,” “none.” Enter “internal” if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and “external” to send the data to the 3B CMS. Enter “both” to send the data to both systems for measurement reports or enter “none” if trunk group measurements are not required. System default is “none.”
- **Abandoned Call Search**— Enter a “y” if this trunk group will conduct an Abandoned Call Search to identify a ghost call; otherwise, enter “n.” Default is “n.” This field is only applicable if Trunk Type is “ground-start.”

Note: Abandoned Call Search is designed to work with CO trunks (ground start - analog) that *do not* provide disconnect supervision. COs that provide disconnect supervision do not require use of the Abandoned Call Search feature. Note that the CO must support Abandoned Call Search for the feature to work properly.

- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are “y” or “n.” Default is “n.”
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are “y” or “n.” Default is “y.”
- **Suppress # Outpulsing**— Indicates end-to-end signaling begins with (and includes) the “#” when “y” is entered in this field. The final # is suppressed in cases where the System would normally outpulse it. This field should be set to “y” when the CO (for example, rotary) or any other facility treats # as an error. Default is “n.”

Page 3 of the Form (Administrable Timers) (International G1.2SE only)

Note: This page is only displayed if “y” is entered in the Administrable Timers Page field on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the sewing CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “1000.”

- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is “600.”
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is “5000.”
- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is “130.”
- **PPS**— Enter either “10” or “20” to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are “10” or “20.” Default is “10.”
- **Make (msec)**— Enter the duration of the make interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is “10,” the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is “40.”

If the PPS field is “20,” the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is “20.”

- **Break (msec)**— Enter the duration of the break interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is “10,” the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is “60.”

If the PPS field is “20,” the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is “30.”
- **PPM**— Enter “y” (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter “n” (no). Valid entries are “y” or “n.” Default is “n.” (This field does not appear for DID, Tie, Tandem, or Access trunks.)

Pages 3 through 9 of the Form (Group Member Assignments)

Note: For International Systems, if “y” has been entered in the Administrable Times Page field on Page 1 of the form, the Group Member Assignments will appear on Pages 4 through 10 of the form.

- **Port**— Enter five to six characters. The first character identifies the network (1 through 2, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to 10 characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Previously, for System 75, Night Service and Balance/Loss information was entered in the Name field as “NT#...” and “TT#)...” This information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Night**— Specifies a night destination for an individual trunk. This entry overrides the group Night Service entry on Page 1 of the form. Allowable entries are an extension, 0 (attendant), or leave blank if the Trunk Type entry on Page 1 is not “auto/. ...”
- **Mode**— Specifies the signaling mode used on Tie Trunks with TN722A, TN722B, TN760B, TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are “e&m” (interface), “simplex” (phantomed), or “protected.” This entry must correspond with the associated dip switch settings on the circuit pack.
- **Type**— Specifies the signaling used. Allowable entries are “t1 stan” (Type 1 Standard), “t1 comp” (Type 1 Compatible), or “type 5.”
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is “no entry (blank) and internally treated as a 0. This delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

TRUNK GROUP		Page 1 of 9
Group Number: —	Group Type: <u>fx</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR : <u>1</u>	TAC: —
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: —
Queue Length: <u>0</u>		Incoming Destination: —
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	Digit Absorption List: —
Prefix-1? <u>n</u>	Restriction: <u>code</u>	Allowed Calls List? <u>n</u>
	Trunk Flash? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type: _____		
Outgoing Dial Type: <u>tone</u>	Disconnect Timing(msec): <u>500</u>	
Trunk Termination: <u>rc</u>	DTT to DCO Loss: <u>normal</u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	RA Trunk Loss: <u>0db</u>
Terminal Balanced? <u>n</u>		
Bit Rate: 1200	Synchronization: <u>async</u>	Duplex: <u>full</u>
Answer Supervision Timeout? <u>10</u>	Receive Answer Supervision? <u>n</u>	

**SCREEN 5-102. Foreign Exchange Trunk Group Form (Part 1)—
Example Only (Standard)**

Implementation Notes:

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Terminal Balanced field is only displayed when the Trunk Type field is "ground-start" or "loop-start." The RA Trunk Loss field is only displayed when the Terminal Balanced field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The Trunk Flash field is only displayed when the Group Type field is "co," "fx," or "wats."

The ITC (Information Transfer Capability) field is appears for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0."

TRUNK GROUP

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TRUNK FEATURES

ACA Assignment? n
Short Holding Time(secs): 10
Measured? none

Long Holding Time(hours) : 1
Short Holding Threshold: 15
Abandoned Call Search? n
Data Restriction? n

Maintenance Tests? y
Suppress # Outpulsing? n

**SCREEN 5-103. Foreign Exchange Trunk Group Form (Page 2)—
Example Only (Standard)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS						Page 3 of 9
	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

**SCREEN 5-104. Foreign Exchange Trunk Group Form (Page 3)—
Example Only (Standard)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 9 of 9
	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

**SCREEN 5-105. Foreign Exchange Trunk Group Form (Page 9)—
Example Only (Standard)**

TRUNK GROUP		Page 1 of x
Group Number: _	Group Type: <u>fx</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: _
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: _
Queue Length: <u>0</u>		Incoming Destination: _
Comm Type: <u>voice</u>		
Prefix-1? <u>n</u>	Restriction: <u>code</u>	Allowed Calls List? <u>n</u>
	Trunk Flash? <u>n</u>	Toll Restricted? <u>y</u>
TRUNK PARAMETERS		
Trunk Type: _____		
Outgoing Dial Type: <u>tone</u>		Disconnect Timing(msec): <u>500</u>
Trunk Termination: <u>rc</u>		DTT to DCO LOSS: <u>normal</u>
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	RA Trunk Loss: <u>0db</u>
Terminal Balanced? <u>n</u>		
Bit Rate: 1200	Synchronization: <u>async</u>	Duplex: <u>full</u>
Answer Supervision Timeout? <u>10</u>		Receive Answer Supervision? <u>n</u>

**SCREEN 5-106. Foreign Exchange Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G1.2SE)**

implementation Notes:

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Terminal Balanced field is only displayed when the Trunk Type field is "ground-start" or "loop-start." The RA Trunk Loss field is only displayed when the Terminal Balanced field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The Trunk Flash field is only displayed when the Group Type field is "co," "fx," or "wats."

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TRUNK FEATURES

ACA Assignment? n Measured: none

Abandoned Call Search? n Data Restriction? n

Suppress # Outpulsing? n Maintenance Tests? y

**SCREEN 5-107. Foreign Exchange Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

Page 3 of 10

ADMINISTRABLE TIMERS

Incoming Disconnect (msec) :	300	Outgoing Disconnect (msec):	300
		Outgoing Dial Guard (msec):	1000
Incoming Glare Guard (msec):	3000	Outgoing Glare Guard (msec):	3000
		Outgoing Rotary Dial Interdigit (msec):	600
Ringing Monitor (msec):	5000	Incoming Seizure (msec):	130

OUTPULSING TIMING

PPS: 10	Make (msec): 40	Break (msec): 60	PPM? n

**SCREEN 5-103. Foreign Exchange Trunk Group Administrable Timers (Page 3)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

This page is only displayed if "y" is entered in the Administrable Timers Page field on Page 1.

GROUP MEMBER ASSIGNMENTS						Page 4 of 10
Port	Name	Night	Mode	Type	Ans Delay	
1:						
2:						
3:						
4:						
5:						
6:						
7:						
8:						
9:						
10:						
11:						
12:						
13:						
14:						
15:						

**SCREEN 5-109. Foreign Exchange Trunk Group Form (Page 4)—
Example Only (International G1.1SE and G1.2SE)**

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 10 of 10
Port	Name	Night	Mode	Type	Ans Delay	
91:						
92:						
93:						
94:						
95:						
96:						
97:						
98:						
99:						

**SCREEN 5-110. Foreign Exchange Trunk Group Form (Page 10)—
Example Only (International G1.1SE and G1.2SE)**

Integrated Services Digital Network—Primary Rate Interface Trunk Group

Purpose

This form is used to assign an Integrated Services Digital Network-Primary Rate Interface (ISDN-PRI) Trunk group which supports the ISDN-PRI and Call by Call Service Selection features. The trunk group provides end-to-end digital connectivity and supports a wide range of services including voice and non-voice services to which users have access by a limited set of CCITT defined, standard multipurpose user-network interfaces. Calls to a variety of switched nodal services such as Megacom telecommunications service, WATS, and ACCUNET digital service and calls destined for different inter-exchange carriers can be processed.

Administration Commands

The following administration commands can be used to access the ISDN-PRI Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages sections (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change. Note that when supporting DCS, it is suggested that the far-end node trunk group be assigned the same "Group Number."
- **Group Type**— Enter "isdn" to identify the type of trunk group. This type can only be entered if the ISDN-PRI field on the System-Parameters Customer-Options form has been enabled.
- **SMDR Reports**— Enter "y" to provide a detailed record of both incoming and outgoing calls made on all trunks in the trunk group. Allowable entries are "y" or "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."

- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is "1."
- **TAG**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. A different TAC must be assigned to each trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. Allowable entries are TACs compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Identifies whether the trunk group is "incoming," "outgoing," or "two-way." Default is "two-way."
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on outgoing calls. Allowable entries are "y" or "n." Default is "n."
- **Dial Access**— Enter "y" to allow the trunk group to be accessed via a trunk access code; otherwise, enter "n." Access via the ARS feature is allowed regardless of this entry. A "y" may only be entered if the Service Type field entry is "access," "tie," "tandem," or dmi-mos. Default is "y."
- **Busy Threshold**— Enter the number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is "99."
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated. Allowable entries are an extension number, 0 (attendant), or leave blank. Leave blank for a Service Type field entry of "sddn." This entry can be overridden by the Night Service entry on page 2 or 5 through 11 of the form.
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A "0" indicates no calls will be held in queue. Enter "0" for DCS trunks or a Service Type field entry of "sddn." Default is "0."
- **Service Type**— Indicates the service for which this trunk group will be dedicated. Table 5-E provides a listing of predefine entries. In addition to the Services/Features, listed on the table, "access," "dmi-mos," "sddn," "tie," "tandem," "wats," and any user-defined services as administered on the Network Facilities form is allowed. An entry of "cbc" is also allowed which indicates that this trunk group is used by the Call by Call Service Selection feature.

A maximum of 10 ISDN-PRI trunk groups can have the Service Type field administered as "cbc."

- **Auth Code**— Enter "y" if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter n. Default is "n." This field can only be set to "y" if the Authorization Codes feature on the System-Parameters Customer-Options form has been enabled.
- **Usage Allot**— Specifies whether or not the user wishes to allocate the usage of the services provided by the trunk group. This field only appears if the Service Type field is "cbc." Allowable entries are "y" and "n." Default is "n." If "y" is entered, two additional CBC related forms are displayed.

- **Far End Test No.**— Specifies the number that will be sent to the far-end's ISDN test line extension. Currently, Far End Test No. is only supported on the private network. When the test trunk long command is issued, this exact number is sent to the far-end to establish a call that tests the integrity of the trunk member under test. The number does not pass through routing or undergo digit manipulation. The digits entered here must be what the far-end expects. For example, for an ISDN tandem trunk, the far-end test number should be a 7-digit ETN number. Up to 15 digits may be entered in this field.
- **Testcall ITC**— Controls the encoding of the ITC codepoint of the Bearer Capability IE in the SETUP message. Note that ISDN TestCall feature does not go through routing, so a testcall will never be blocked due to an incompatible ITC. Allowed values are "rest"(ricted) and "unre"(stricted). Default is "rest."
- **Testcall BCC**— Controls the encoding of the Bearer Capability IE (BCIE) in the SETUP message. Allowed values are:
 - 0—voice
 - 1—DCP Mode 1
 - 2—Mode 2 async
 - 3—Mode 3 circuit
 - 4—DCP Mode 0 (default)

TABLE 5-E. Predefined Services/Features—ISDN-PRI

Service/Feature	
Administration Mnemonic	Description
accunet	ACCUNET Switched Digital Service—part of ACI (AT&T Communications ISDN) phase 2.
i800	International 800 Service—allows a subscriber to receive international calls without a charge to the call originating party.
inwats	INWATS—provides OUTWATS-like pricing and service for incoming calls.
lds	Long-Distance Service—part of ACI (AT&T Communications ISDN) phase 2.
megacom	Megacom Service—an AT&T communications service that provides unbanded long-distance services using special access (PBX to 4ESS switch) from an AT&T communications node.
megacom-800	Megacom 800 Service—an AT&T communications service that provides unbanded 800 service using special access (4ESS switch to PBX) from an AT&T communications node.
multiquest	AT&T MULTIQUEST® Telecommunications Service—dial 700 service. A terminating users service supporting interactive voice service between callers at switched access locations and service provides directly connected to the AT&T Switched Network (ASN).
operator	Network Operator—provides access to the network operator.
outwats-bnd	OUTWATS Band—WATS is a voice-grade service providing both voice and low speed data transmission capabilities from the user's location to defined service areas commonly referred to as bands. Currently, the widest band is 5.
sdn	Software Defined Network (SDN)—an AT&T communications offering that provides a virtual private network using the public switched network. SDN can carry voice and data between customer locations as well as off-net locations.
sddn	Software Defined Data Network—provides a virtual private line connectivity via the AT&T switched network (4ESS switch). Services include voice, data, and video applications. These services complement the SDN service.
sub-operator	Presubscribed Common Carrier Operator-provides access to the presubscribed common carrier operator.
wats-max-bnd	Maximum Banded Wats—a WATS-like offering for which a user's calls are billed at the highest WATS band subscribed to by the user.

- Display, TCM, Lookahead Codeset—valid entries are “6” or “7.” This entry defines the codeset for sending ISDN-PRI Information Elements (IEs) for Display, Traveling Class Mark, and Lookahead Interflow. When the distant end of the ISDN-PRI trunk group is a System 85 R2V4 or a 4ESS Generic 11 switch, then a “7” should be entered in this field. Otherwise, “6” (default) is the correct entry.

Note: A Traveling Class Mark (that is, user's FRL or the FRL of a user's trunk group) is passed between tandem nodes in an ETN in the setup message. It is then used by the distant tandem switch to permit access to facilities consistent with the originating user's privileges.

- **Max Message Size to Send**— Valid entries are 128, 244, 256, 260. Defines the maximum size of ISDN-PRI messages sent by the switch. Currently, System 85 R2V4 and No. 4ESS version 4E11 switches can only receive messages of 128 bytes. The System can receive 260 byte messages. Default is "260."
- **Toll**— Enter "y" if connected to a CO toll office; otherwise, enter "n." Default is "n."
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Toll field is "n." Specifies the loss plan to be used. Allowable entries are "normal" (default) or "low." This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The "low" option (described as the ISL digital low loss plan in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference, 555-025-101*) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs.
3. All PBXs have the "low" option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk—voice or AVD DS1 interface) loss plans.
- **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)**— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/... Valid entries are "normal" (default) or "low."

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network; otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference, 555-025-101*.)

- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DM1/ISDN-PRI Reference, 555-025-101.*)
- **Bit Rate**— Specifies the baud rate used for pooled modems. Allowable entries are “300,” “1200,” “2400,” “4800,” “9600,” and “19200.” Default is “1200.”
- **Synchronnization**— Specifies if the trunk group will use synchronous or asynchronous communications. Allowable entries are “async” and “sync.” Default is “async.”
- **Duplex**— Specifies if the trunk will operate full or half duplex. Allowable entries are “full” and “half.” Default is “full.”
- **Disconnect Supervision**— Enter “y” (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter “n” (no). Default is “y.” (International G1.1SE and G1.2SE).

Page 2 of the Form

- **ACA Assignment**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are “y” or “n.” Default is “n.” If “y” is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If “0” is entered, the System will not consider long holding calls. Allowable entries are 0 through 10. Default is “1.” Field must be “0” for a Service Type field entry of “sddn.”
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If “0” is entered, the System will not consider short holding calls. Allowable entries are 0 through 180. Default is “10.”
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is “15.”
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are “internal,” “external,” “both,” “none.” Enter “internal” if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and “external” to send the data to the 3B CMS. Enter “both” to send the data to both systems for measurement reports. Enter “none” if trunk group measurements are not required. System default is “none.”
- **Internal Alert**— Specifies if internal ringing and coverage will be used for incoming calls. Allowable entries are “y” or “n.” Default is “n.”
- **Default NCA TSC Routing**— Enter “y” (yes) if the Sig Grp fields on the Group Member Assignments forms (Pages 5 through 11) will be used as signaling groups for sending out

the Non-Call Associated Temporary Signaling Connection (NCA TSC). Entering “n” (no) causes the Sig Grp field to be displayed on this page of the form.

Note that TSC is a virtual connection established within a D-channel in a ISDN-PRI facility so that users can transport non-call control user to user information. With NCA TSC, there is no B-channel associated with the connection.

- **Data Restriction**— Is used to prevent System features from generating tones on a data call that would cause erroneous data transmission. Allowable entries are “y” or “n.” Default is “n.”
- **Sig Grp**— Only displayed when “n” is entered in the Default NCA TSC Routing field. It is used to identify which signaling group an NCA TSC will be routed out on. Enter the appropriate signaling group numbers (1 through 8). The signaling groups entered will be chosen by “round-robin” method. To balance the load of sending TSCs on every signaling group, a signaling group number can be entered twice to increase its probability of being used as an outgoing route for NCS TSCs.

A signaling group is a group of B-channels for which a given D-channel (or D-channel pair) will carry the signaling information.
- **Send CPN**— Specifies if the calling party’s number is sent to the network on incoming and/or outgoing ISDN calls. Allowable entries are “y” or “n.” If “y” is entered, the CPN Prefix Table is accessed to construct the actual number to be sent over the network. (Note that the CPN Prefix Table can override the Send CPN field entry for any administrable block of extensions.) Default is “n.”
- **Send Name**— Specifies if the calling/connected party’s administered name is sent to the network on incoming and/or outgoing calls. Allowable entries are “y” or “n.” Default is “n.”
- **Used for DCS**— Specifies whether the trunk group will send and receive messages on a DCS signaling link. Allowable entries are ‘y’ or “n.” If “y” is entered, complete the PBX ID field entry. Default is “n.”
- **PBX ID**— Identifies the remote PBX within the network that the trunk will communicate with on a DCS Signaling Link. Allowable entries are 1 through 63. Default is “1.”
- **DCS Signaling**— Only delayed when the Used for DCS field is “y.” Enter either “bx.25” or “d-chan.” Enter “bx.25” for the standard DCS feature and enter “d-chan” for the DCS over ISDN-PRI D-channel feature.
- **Maintenance Tests**— Indicates whether or not hourly maintenance tests will be made on this trunk group. Allowable entries are “y” or “n” Default is “y.”

The following fields on Page 2 of the form provide an incoming call handling table. The table can (optionally) be used to provide unique call treatment for different incoming calls on any ISDN-PRI trunk group. Twelve unique treatment specifications are possible, corresponding to the 12 rows (lines) on the table. Unique digit manipulation capabilities, CPN/BN requests, and night service destinations are possible for different types of incoming calls. The unique digit manipulation capabilities can be particularly useful to accommodate different dial plans for different services on a ISDN-PRI trunk type with a Service Type (field entry) of “cbc” (Call-by-Call). The table can also be used for ISDN-PRI trunk groups that are not Call-by-Call. For example, an ISDN-PRI group with service type “megacom-800” could use the Incoming Call Handling Table to distinguish treatment of calls to different 800 numbers based on the Dialed Number Identification Service (DNIS) number that is incoming to the PBX.

Each row in the table consists of seven columns. The first three columns (that is, Service/Feature, Called Len, and Called Number) constitute a key that together select which row or unique treatment should apply for an incoming call on the group. The remaining four columns (that is, Del, Insert, ...) specify the treatment to be provided for a call that matches the key.

If an incoming call is for a service listed in a row on the table, then that row may specify the treatment for the call, depending on the other two columns of the key. The Called Len field is used to continue the row determination. If the number of digits received with the incoming call matches the number of digits in the Called Len field for calls to the matched service, then this row may apply. If no other row also contains a matching service and called length, then this row does apply. If another row does exist with the same service and number length, then the Called Number field will be used to continue the row determination. If the leading digits received with the incoming call match the digits specified in the Called Number field, then this row applies to the call. Therefore, with this table, a unique treatment can be given to any incoming call, even if these calls are to the same service or have the same length of digits. The remaining four fields specify the unique treatment for the call once the row has been determined. Together, the Del and Insert fields can be used to manipulate the incoming number that will be used to route the call. The Per Call CPN/BN field can be used to request CPN/BN only for specific calls incoming on the group. The Night Serv field is used to have calls of different types routed to different night destinations when night service is in effect.

The following provides information for each field that can be administered:

- **Service/Feature**— Specifies the ISDN-PRI Services/Features for an incoming call type. See the Service Type field description for a list of predefine Services/Features that can be received. The identifier “other” can be used for any Service/Features not explicitly specified.
- **Called Len**— Specifies the number of digits received for an incoming call. A blank entry is used as a “wild card” entry and, when used, means that any length of digits associated with the specified Service/Feature can match in this field. Allowable entries are 0 through 21, or leave blank.
- **Called Number**— Specifies the leading digits received for an incoming call. A blank entry is used as a “wild card” entry and, when used, means that any number associated with the specified Service/Feature can match in this field. Allowable entries are 1 through 16 digits, or leave blank.
- **Del**— Specifies the number of leading digits to be deleted from the incoming Called Party Number. Calls of a particular type may be administered to be routed to a single destination by deleting all incoming digits and then administering the Insert field with the desired extension. Allowable entries are 1 through 21, “all,” or leave blank.
- **Insert**— Specifies the digits to be prepended to the front of the remaining digits after any (optional) digit deletion has been performed. The resultant number formed from digit deletion/insertion is used to route the call, provided night service is not in effect. Allowable entries are up to 16 digits, or leave blank.
- **Per Call CPN/BN**— Specifies if and how to request Calling Party Number (CPN) or Billing Number (BN) for calls of this type. An entry of “none” indicates that the switch will not request either CPN or BN for any incoming calls of this type. Allowable entries are “cpn-only,” “bn-only,” “bn-pref” (prefer BN, but will accept CPN), “cpn-pref” (prefer CPN, but

will accept BN), "none," or leave blank. Default is "blank. Leave blank when connected to another PBX switch. Note that a 4-second delay will occur in terminating the call to the far-end station if the connecting switch does not respond to the request.

- **Night Serv**— Specifies a night service extension (can be a VDN extension) per Service/Feature. An entry other than blank overrides the Night Service field entry on Page 1 of the form. This entry can be overridden by the Trunk/Member Night Service entry when provided. Allowable entries are an assigned extension, 0 (attendant), or leave blank.

Page 3 of the Form

Page 3 is only displayed if the Service Type on Page 1 is "cbc" and Usage Allot is "y." Page 3 is used to set a minimum and maximum number of members for up to 10 different Services/Features for up to 3 different Usage Allocation Plans (1 through 3).

Note: Refer to the Call By Call Service Selection feature in *DEFINITY® Communications System and Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of Usage Allocation Plans.

- **Service/Feature**— Specifies the ISDN-PRI Services/Features that can be requested at call setup time when using this trunk group. See the Service Type field description for a list of predefined Services/Features that can be received on a call by call basis. The identifier "other" is used for all Services/Features not explicitly specified.
- **Min# Chan**— Indicates the minimum number of members of an ISDN-PRI trunk group with a Service Type of cbc that are reserved for a particular Service/Feature can use at any given time. The sum of the minimum number of members for all Service/Features must not exceed the total number of members of the trunk group. Allowable entries are 0 through 99, or leave blank.
- **Max# Chan**— Indicates the maximum number of members of a ISDN-PRI trunk group with a Service Type of cbc that a particular Service/Feature can use at any given time. This field must be completed if a Service/Feature has been entered on Page 2 of the form. Allowable entries are 1 through 99, or leave blank.

Page 4 of the Form

Page 4 is only displayed if the Service Type on Page 1 is "cbc" and Usage Allot is "y." Page 4 provides for administering a fixed schedule or administering a schedule that can change up to six times a day for each day of the week.

- **Fixed**— Indicates whether the allocation plan will be fixed. If "y" is entered in this field, the plan number entered in the Allocation Plan Number field will be enabled. This field must be completed if a Service/Feature has been entered on Page 2 of the form. Allowable entries are "y" and "n." Default is "y."
- **Allocation Plan Number**— Specifies the CBC Trunk Allocation Plan (1 through 3) that is in effect if a fixed usage method has been selected. This field must be assigned if the Fixed field is "y." Valid entries are 1 through 3, or blank. Default is "blank."

- **Scheduled**— Indicates whether the allocation plans will be in effect according to the schedule found on this page. If “y” is entered in this field then there must be at least one entry in the schedule. Allowable entries are “y” and “n.” Default is “n.”
- **Act Time**— Indicates the time that the usage allocation plan administered in the next field (Plan #) will become effective. The time is entered in military time. There must be at least one entry per day. Allowable entries are 00:00 through 23:59.
- **Plan #**— Specifies the number of the usage allocation plan which will be in effect from the activation time until the activation time of the next scheduled plan change. Allowable entries are 1 through 3.

Pages 5 through 11 of the Form (GROUP MEMBER ASSIGNMENTS)

Note: When supporting DCS, Member Number Assignments must be the same between nodes (that is, Member #1 must be Member #1 at the far-end trunk group).

- **Port**— Indicates the trunk port number in the form. Enter five to six characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on Carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08). Refer to the Port Assignment Record.
- **Name**— Enter up to 10 characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).
- **Night**— Specifies a night destination for an individual trunk. This entry overrides the group Night Service entry on Page 1 of the form. Allowable entries are an extension (can be a VDN extension), 0 (attendant), or leave blank.
- **Sig Grp**— Enter the appropriate signaling group number (1 through 8). See Signaling Group Form for additional information. If a DS1 interface appears in one and only one signaling group, then the number of that signaling group will appear as a default in the Sig Grp column for any trunk on that interface. This value cannot be altered without adding a circuit pack TN code for DS1 interface to another signaling group. If a DS1 circuit pack appears in more than one signaling group, then no default will appear in the Sig Grp column.

TRUNK GROUP		Page 1 of 11
Group Number: _	Group Type: <u>isdn-pri</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: _
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access: <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u></u>
Queue Length: <u>0</u>		
Service Type: _____	Auth Code? <u>n</u>	Testcall ITC: <u>rest</u>
Usage Allot? <u>n</u>	Far End Test No: _____	
TestCall BCC: 4		
TRUNK PARAMETERS		
Display, TCM, Lookahead Codeset: <u>6</u>		
Max Message Size to Send: <u>260</u>		
Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO LOSS: <u>normal</u>
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>

**SCREEN 5-111. ISDN-PRI Trunk Group Form (Page 1)—
Example Only (Standard)**

Implementation Note:

"Queue Length" is only displayed if the Direction field is "outgoing" or "two-way."

"Usage Alloc" is only displayed if in the Service Type field is "cbc."

Page 2 of 11

TRUNK FEATURES

ACA Assignment? n Measured: none Internal Alert? n
Long Holding Time(hours): 1 Default NCA TSC Routing? n
Short Holding Time(secs.): 10 Data Restriction? n Sig Grp: _
Short Holding Threshold: 15 Send CPN? n Send Name? n
Used For DCS? y PBX ID: 1 DCS Signaling? bx.25
Maintenance Tests? y

Service/ Feature	Called Len	Called Number	Del	Insert	Per Call CPN/BN	Night Serv
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____
_____	___	_____	___	_____	_____	_____

**SCREEN 5-112. ISDN-PRI Trunk Group Form (Page 2)—
Example Only (Standard)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The Internal Alert field is not displayed if the Service Type field on page 1 is "cbc."

Sig Grp field only displayed if "n" is entered in the "Default NCA TSC Routing" field.

DCS Signaling field only displayed when Used for DCS field is "y."

The PBX-ID field is not displayed if the Used For DCS field is "n."

CBC Service Type Usage Allocation

Usage Allocation Plan 1			Usage Allocation Plan 2			Usage Allocation Plan 3		
Service/Feature	Min# Chan	Max# Chan	Service/Feature	Min# Chan	Max# Chan	Service/Feature	Min# Chan	Max# Chan
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—
_____	—	—	_____	—	—	_____	—	—

**SCREEN 5-113. ISDN-PRI Trunk Group Form (Page 3)—
Example Only (Standard)**

Implementation Note:

This page is only displayed if the Service Type field on Page 1 is "cbc."

Page 4 of 11

CBC Service Type Usage Allocation Plan Assignment Schedule

Usage Method:

Fixed? yAllocation Plan Number: _

Scheduled?

Usage Allocation Plan Activation Schedule:

	Act Time	Plan #	Act Time	Plan #	Act Time	Plan #	Act Time	Plan #	Act Time	Plan #	Act Time	Plan #
Sun	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-
Mon	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-
Tue	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-
Wed	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-
Thu	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-
Fri	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-
Sat	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-	__:__	-

SCREEN 5-114. ISDN-PRI Trunk Group Form (Page 4)—
Example Only (Standard)

Implementation Note:

This page is only displayed if the Service Type field on Page 1 is “cbc.”

GROUP MEMBER ASSIGNMENTS

	Port	Name	Night	Sig Grp
1:	_____	_____	_____	_____
2:	_____	_____	_____	_____
3:	_____	_____	_____	_____
4:	_____	_____	_____	_____
5:	_____	_____	_____	_____
6:	_____	_____	_____	_____
7:	_____	_____	_____	_____
8:	_____	_____	_____	_____
9:	_____	_____	_____	_____
10:	_____	_____	_____	_____
11:	_____	_____	_____	_____
12:	_____	_____	_____	_____
13:	_____	_____	_____	_____
14:	_____	_____	_____	_____
15:	_____	_____	_____	_____

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**SCREEN 5-115. ISDN-PRI Trunk Group Form (Page 5)—
Example Only (Standard)**

Note: To reduce repetition, pages 6 through 10 are not shown.

GROUP MEMBER ASSIGNMENTS				Page 11 of 11
	Port	Name	Night	Sig Grp
91:	_____	_____	_____	_____
92:	_____	_____	_____	_____
93:	_____	_____	_____	_____
94:	_____	_____	_____	_____
95:	_____	_____	_____	_____
96:	_____	_____	_____	_____
97:	_____	_____	_____	_____
98:	_____	_____	_____	_____
99:	_____	_____	_____	_____

**SCREEN 5-116. ISDN-PRI Trunk Group Form (Page 11)—
Example Only (Standard)**

Implementation Note:

Above Group Member Assignments pages are for an ISDN-PRI Trunk Group type “cbc”; otherwise, Page numbers will be 3 through 9.

TRUNK GROUP		Page 1 of 9
Group Number: <u>71</u>	Group Type: <u>isdn-pri</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access: <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u></u>
Queue Length: <u>0</u>		
Service Type: <u>cbc</u>	Auth Code? <u>n</u>	
	Far End Test No: <u></u>	
TestCall BCC: <u>4</u>		
TRUNK PARAMETERS		
Display, TCM, Lookahead codeset: <u>6</u>		
Max Message Size to Send: <u>260</u>		
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	Connected To: <u>Main</u>
		DTT to DCO LOSS: <u>normal</u>
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>
Disconnect Supervision? <u>y</u>		

**SCREEN 5-117. ISDN-PRI Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

"Queue Length" is only displayed if the Direction field is "outgoing" or "two-way."

"Usage Alloc "is only displayed if in the Service Type field is "cbc."

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TRUNK FEATURES

ACA Assignment? n Measured: none

Data Restriction? n NCA-TSC Signaling Group:

Send CPN? n Send Name? n

Used For DCS? n Maintenance Tests? y

Service/ Feature	Called Len	Called Number	Del	Insert	Per Call CPN/BN	Night Serv

**SCREEN 5-118. ISDN-PRI Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The Internal Alert field is not displayed if the Service Type field on Page 1 is "cbc."

Sig Grp field only displayed if "n" is entered in the "Default NCA TSC Routing" field.

DCS Signaling field only displayed when Used for DCS field is "y."

The PBX-ID field is not displayed if the Used For DCS field is "n."

CBC Service Type Usage Allocation

Usage Allocation Plan 1			Usage Allocation Plan 2			Usage Allocation Plan 3		
Service/Feature	Min# Chan	Max# Chan	Service/Feature	Min# Chan	Max# Chan	Service/Feature	Min# Chan	Max# Chan
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—
	—	—		—	—		—	—

**SCREEN 5-119. ISDN-PRI Trunk Group Form (Page 3)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

This page is only displayed if the Service Type field on Page 1 is "cbc."

CBC Service Type Usage Allocation Plan Assignment Schedule

Usage Method:

Fixed? y Allocation Plan Number:
 Scheduled? n

Usage Allocation Plan Activation Schedule:

	Act	Plan	Act	Plan	Act	Plan	Act	Plan	Act	Plan	Act	Plan
	Time	#	Time	#	Time	#	Time	#	Time	#	Time	#
Sun	__:	__	__:	__	__:	__	__:	__	__:	__	__:	__
Mon	__:	__	__:	__	__:	__	__:	__	__:	__	__:	__
Tue	__:	__	__:	__	__:	__	__:	__	__:	__	__:	__
Wed	__:	__	__:	__	__:	__	__:	__	__:	__	__:	__
Thu	__:	__	__:	__	__:	__	__:	__	__:	__	__:	__
Fri	__:	__	__:	__	__:	__	__:	__	__:	__	__:	__
Sat	__:	__	__:	__	__:	__	__:	__	__:	__	__:	__

**SCREEN 5-120. ISDN-PRI Trunk Group Form (Page 4)—
 Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

This page is only displayed if the Service Type field on Page 1 is "cbc."

GROUP MEMBER ASSIGNMENTS				Page 5 of 11
	Port	Name	Night	Sig Grp
1:	_____	_____	_____	_____
2:	_____	_____	_____	_____
3:	_____	_____	_____	_____
4:	_____	_____	_____	_____
5:	_____	_____	_____	_____
6:	_____	_____	_____	_____
7:	_____	_____	_____	_____
8:	_____	_____	_____	_____
9:	_____	_____	_____	_____
10:	_____	_____	_____	_____
11:	_____	_____	_____	_____
12:	_____	_____	_____	_____
13:	_____	_____	_____	_____
14:	_____	_____	_____	_____
15:	_____	_____	_____	_____

**SCREEN 5-121. ISDN-PRI Trunk Group Form (Page 5)—
Example Only (International G1.1SE and G1.2SE)**

Note: To reduce repetition, pages 6 through 10 are not shown.

GROUP MEMBER ASSIGNMENTS

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	Port	Name	Night	Sig Grp
91:	_____	_____	_____	_____
92:	_____	_____	_____	_____
93:	_____	_____	_____	_____
94:	_____	_____	_____	_____
95:	_____	_____	_____	_____
96:	_____	_____	_____	_____
97:	_____	_____	_____	_____
98:	_____	_____	_____	_____
99:	_____	_____	_____	_____

**SCREEN 5-122. ISDN-PRI Trunk Group Form (Page 11)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:
Above Group Member Assignments pages are for an ISDN-PRI Trunk Group type "cbc"; otherwise, Page numbers will be 3 through 9.

Personal Central Office Line (PCOL) Group

Purpose

This section contains the form necessary to implement a Personal Central Office Line (PCOL) Group. The PCOL provides a dedicated trunk circuit between multi-appearance voice terminals and a CO or other switch via the PBX network. Up to 40 PCOL Groups can be implemented.

Administration Commands

The following administration commands can be used to access the PCOL Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	personal-co-line	140 (or 'next')
change	personal-co-line	140
display	personal-co-line	140 ['print' or 'schedule']
list	personal-co-line	['print' or 'schedule']
remove	personal-co-line	140

- Brackets [] indicate the qualifier is optional.
Single quotes (') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Instructions

Make assignments as required for the following fields on the form:

- **Group Number**— Enter a number from 1 through 40 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter CO, FX or WATS to identify the type of PCOL Group as follows:
 - Central Office (CO)
 - Foreign Exchange (FX)
 - Wide Area Telecommunications Service (WATS).
- **SMDR Reports**— Enter "y" to provide a detailed SMDR record of incoming and outgoing calls made on the PCOL; otherwise enter "n." Default is "y."
- **Group Name**— Enter a unique name that identifies the PCOL Group. Up to 15 characters can be used (all forms). Default is "OUTSIDE CALL."
- **Coverage Path**— Enter the number of the Call Coverage Path (1 through 600) used to redirect the incoming calls on this PCOL Group. This field maybe left blank.
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the PCOL Group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. A different TAC must be assigned to each trunk group. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).

- **Disconnect Supervision**— Enter “y” (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter “n” (no). Default is “y.” (International G1.1SE and G1.2SE).
- **Administrable Timers Page**— Only displayed for international applications. Entering a “y” causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers Page then becomes Page 3 of x. Valid entries are “y” or “n.” Default is “n.” (International G1.1SE and G1.2SE).
- **Security Code**— Is a 4-digit security code used for message retrieval, including voice message retrieval and the Demand Print Message feature. This field maybe left blank.
- **Outgoing Display**— Allows the display of the PCOL Group name on outgoing calls made by voice terminals that have a display. Allowable entries are “y” or “n.” Default is “n.”
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a PCOL. This provides permanent protection. Allowable entries are “y” or “n.” Default is “n.”
- **Trunk Type**— Identifies the type of PCOL as “ground-start” or “loop-start.”
- **Trunk Direction**— Identifies the direction of the trunks in the PCOL Group. Allowable entries are “incoming,” “outgoing,” or “two-way” for Group Types of CO and FX, or “incoming” or “outgoing” only for Group Types of WATS. Default is “two-way.”
- **Trunk Port**— Enter five to six characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08).
- **Disconnect Timing (msec)**— Represents the time in milliseconds that is required for recognition of the disconnect signal from the serving CO. The time interval must be in increments of 10 (from 140 through 2550 milliseconds). Default is “500.”
- **Trunk Name**— Is a 7-character name that identifies the PCOL Group.
- **Trunk Termination**— Defines how the PCOL is terminated. The PCOL can terminate in a resistance of 600 ohms, or a resistor capacitor (rc) network. The network is used to match long loops; 600 ohm is used to match short loops. Allowable entries are “600ohms” or “rc”; 600ohms is used when the PBX trunk port is connected to terminal equipment.

Page 3 of the Form (Administrable Timers) (International G1.2SE only)

Note: This page is only displayed if “y” is entered in the Administrable Timers Page field on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”

- **Outgoing Disconnecting (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is "300."
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "1000."
- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 2000 through 25600 in increments of 200. The field cannot be blank. Default is "3000."
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is "3000."
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval in (msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is "600."
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 5100 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is "5000."
- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is "130."
- **PPS**— Enter either "10" or "20" to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are "10" or "20." Default is "10."
- **Make (msec)**— Enter the duration of the make interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 60 in increments of 5. The field cannot be blank. The default is "40."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "20."
- **Break (msec)**— Enter the duration of the break interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 60 in increments of 5. The field cannot be blank. The default is "60."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "30."

- **PPM**— Enter "y" (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter "n" (non). Valid entries are "y" or "n." Default is "n." (This field does not appear for DID, Tie, Tandem, or Access trunks.)

Release Link Trunk Group

Purpose

This form is used to assign a Release Link Trunk (RLT) Group and associated trunk ports. The trunk group is used to implement the CAS feature and is used to connect attendant-seeking calls from a branch location to a main location.

Administration Commands

The following administration commands can be used to access the Release Link Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

- Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as “add” or “change.”
- **Group Type**— Enter “rlt” to identify the type of trunk group.
- **SMDR Reports**— Enter “y” to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter “n.” Default is “y.”
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is “OUTSIDE CALL”
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is “1.”
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. A different TAC must be assigned to each trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).

- **Direction**— For CAS, enter “outgoing” if the switch is a CAS Branch location or enter “incoming” if the switch is a CAS Main location.
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are “y” or “n.” Default is “n.”
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is “99.”
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type is not “auto/....”
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A “0” indicates no calls will be held in queue. Enter “0” for DCS trunks. Default is “0.” This field is not displayed if the Direction field is “incoming.”
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number (can be a VDN extension), 0 (attendant), or leave blank if Trunk Type is not “auto/....”
- **Trunk Type (in/out)**— Identifies the physical type of incoming and outgoing trunks. Allowable entries are listed below. The RLT trunk in a CAS Branch location should be assigned “immed/auto” if the main PBX is a System 85 or DIMENSION PBX equipped with Feature Package 8. If the main PBX is not AT&T equipment, translations at the System Branch must be set to match what the main RLTs provide. If the far-end switch is a DEFINITY system or System 75, both switches should be translated as: Main = auto/wink or auto/immediate, Branch = wink/auto or immediate/auto. If a DEFINITY system is replacing another switch, the System’s translations should match the existing setup.

auto/delay	auto/immed	auto/wink	delay/wink
delay/auto	delay/delay	delay/immed	immed/wink
immed/auto	immed/delay	immed/immed	wink/wink
wink/auto	wink/delay	wink/immed	

- **Incoming Rotary Timeout (see)**— Is the timing interval required by the CO that the System is connected to. If the System is connected to a step-by-step office, 18 or more seconds must be used; if the System is not connected to a step-by-step office, five or more seconds may be used. The maximum value is 99 seconds. Allowable entries are 5 through 99. Default is “5.”
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are “tone” or “rotary.” Default is “tone.”

- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are "tone" or "rotary." Default is "tone."
- **Connected to Toll**— Enter "y" if connected to a CO toll office; otherwise, enter "n" (default). This field is displayed when the Trunk Type field contains an entry of "auto/...", "delay/...", "wink/...", or "immed/..." Default is "n."
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is "n." Specifies the loss plan to be used for the trunk group. Allowable entries are "normal" (default) or "low." This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The "low" option (described as the ISL digital low loss plan in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DM/SDN-PRI Reference*, 555-025-101) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs.
3. All PBXs have the "low" option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk—voice or AVD DS1 interface) loss plans.
- **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss** (Digital Tie to Digital CO Trunk Loss)—Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/....

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DM1/ISDN-PRI Reference, 555-025-101.*)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DM1/ISDN-PRI Reference, 555-025-101.*)
- **Incoming Dial Tone**— Indicates whether or not the trunk group will pass on incoming dial tone to the calling party. Allowable entries are “y” or “n.” Default is “y.”
- **Disconnect Supervision**— Enter “y” (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter “n” (no). Default is “y.” (International G1.1SE and G1.2SE).
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. Allowable entries are 0 through 250. Default is “10.”

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are “y” or “n.” Default is “n.” If “y” is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is “0,” the System will not consider long holding calls. Allowable entries are 0 through 10. Default is “1.”
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is “0,” the System will not consider short holding calls. Allowable entries are 0 through 160. Default is “10.”
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is “15.”
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are “internal,” “external,” “both,” “none.” Enter “internal” if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and “external” to send the data to the 3B CMS. Enter “both” to send the data to both systems for measurement reports or enter “none” if trunk group measurements are not required. System default is “none.”

- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are “y” or “n.” Default is “n.”
- **Used for DCS?**— Indicates whether or not the trunk will send and receive messages on a DCS Signaling Link. Allowable entries are “y” or “n.” Default is “n.” If “y” is entered, complete the PBX ID field.
- **PBX ID**— Identifies the remote PBX within the network that the trunk will communicate with on a DCS Signaling Link. Allowable entries are 1 through 63. Default is “1.”
- **Suppress # Outpulsing**— Indicates end-to-end signaling. Begins with (and includes) the “#” when “y” is entered in this field. The final # is suppressed in cases where the System would normally outpulse it. This field should be set to “y” when the CO (for example, rotary) or any other facility treats # as an error. Default is “n.”
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Default is “y.” Allowable entries are “y” or “n.”

Pages 3 through 9 of the Form (GROUP MEMBER ASSIGNMENTS)

- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to 10 characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note Previously, System 75 Night Service and Balance/Loss information was entered in the Name field as “NT#...” and “TT#)....” This information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Night**— Specifies a night destination for an individual trunk. This entry overrides the group Night Service field entry on Page 1 of the form which is displayed when the Direction field is “incoming.” Allowable entries are an extension, 0 (attendant) (can be a VDN extension), or leave blank if the Trunk Type field on Page 1 is not “auto/....”
- **Mode**— Specifies the signaling mode used on Tie Trunks when using TN760B circuit packs. Allowable entries are “e&m” (interface), “simplex” (phantomed), or “protected.” This entry must correspond to associated dip switch settings on the circuit pack. No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (international G1.2SE only) circuit packs.
- **Type**— When using TN760B circuit packs, this entry specifies the type of trunk used. Allowable entries are “t1 stan” (Type 1 Standard), “t1 comp” (Type 1 Compatible), or “type 5.” No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.

- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is no entry (blank) and internally treated as a zero. This delay serves three purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.
 3. Used to delay cut-through in RLT applications so that the central attendant does not miss call progress tones. For RLT applications, set this field to 320 or greater.

TRUNK GROUP		Page 1 of 9
Group Number: _	Group Type: <u>rlt</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR : <u>1</u>	TAC : _
Direction: _____	Outgoing Display? <u>n</u>	Night Service: _
	Busy Threshold: <u>99</u>	Incoming Destination: _
Queue Length: <u>0</u>		
TRUNK PARAMETERS		
Trunk Type (in/out) : _____	Incoming Rotary Timeout (sec) : <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Answer Supervision Timeout ? <u>10</u>		

**SCREEN 5-123. Release Link Trunk Group Form (Page 1)—
Example Only (Standard)**

Implementation Note:

The Night Service and Incoming Destination fields are only displayed if the Direction field is "incoming."

The Queue Length field is not displayed if the Direction field is "incoming."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "immed...", "wink/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>		
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Used for DCS? <u>n</u>	PBX ID: <u>1</u>	
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

SCREEN 5-124. Release Link Trunk Group Form (Page 2)—Example Only (Standard)**Implementation Note:**

The following fields are only displayed if the ACA Assignment field is “y”:

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The PBX ID field is not displayed if the Used for DCS field is “n.”

GROUP MEMBER ASSIGNMENTS						Page 3 of 9
Port	Name	Night	Mode	Type	Ans Delay	
1:	_____	_____	_____	_____	_____	
2:	_____	_____	_____	_____	_____	
3:	_____	_____	_____	_____	_____	
4:	_____	_____	_____	_____	_____	
5:	_____	_____	_____	_____	_____	
6:	_____	_____	_____	_____	_____	
7:	_____	_____	_____	_____	_____	
8:	_____	_____	_____	_____	_____	
9:	_____	_____	_____	_____	_____	
10:	_____	_____	_____	_____	_____	
11:	_____	_____	_____	_____	_____	
12:	_____	_____	_____	_____	_____	
13:	_____	_____	_____	_____	_____	
14:	_____	_____	_____	_____	_____	
15:	_____	_____	_____	_____	_____	

SCREEN 5-125. Release Link Trunk Group Form (Page 3)—Example Only (Standard)

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 9 of 9
Port	Name	Night	Mode	Type	Ans Delay	
91:	_____	_____	_____	_____	_____	
92:	_____	_____	_____	_____	_____	
93:	_____	_____	_____	_____	_____	
94:	_____	_____	_____	_____	_____	
95:	_____	_____	_____	_____	_____	
96:	_____	_____	_____	_____	_____	
97:	_____	_____	_____	_____	_____	
98:	_____	_____	_____	_____	_____	
99:	_____	_____	_____	_____	_____	

SCREEN 5-126. Release Link Trunk Group Form (Page 9)—Example Only (Standard)

TRUNK GROUP		Page 1 of 9
Group Number: <u>71</u>	Group Type: <u>rlt</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Direction: <u>incoming</u>	Outgoing Display? <u>n</u>	
	Busy Threshold: <u>99</u>	Night Service: <u>_</u>
		Incoming Destination: <u>0</u>
TRUNK PARAMETERS		
Trunk Type (in/out): <u>auto/delay</u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Bit Rate: <u>1200</u>	Synchronization: <u>asyhc</u>	Duplex: <u>full</u>
Disconnect Supervision: <u>y</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-127. Release Link Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The Night Service and Incoming Destination fields are only displayed if the Direction field is "incoming."

The Queue Length field is not displayed if the Direction field is "incoming."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/..." "delay/..." "immed..." "wink/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

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TRUNK FEATURES

ACA Assignment? <u>n</u>	Measured? <u>none</u>
	Data Restriction? <u>n</u>
Used for DCS? <u>n</u>	
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>

**SCREEN 5-128. Release Link Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The PBX ID field is not displayed if the Used for DCS field is "n."

GROUP MEMBER ASSIGNMENTS

Page 3 of 9

	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

**SCREEN 5-129. Release Link Trunk Group Form (Page 3)—
Example Only (International G1.1SE and G1.2SE)**

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS

Page 9 of 9

	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

**SCREEN 5-130. Release Link Trunk Group Form (Page 9)—
Example Only (International G1.1SE and G1.2SE)**

Tandem Trunk Group

Purpose

This form is used to assign a Tandem Trunk Group in the System. Tandem trunks are used to interconnect tandem nodes in an ETN network. The trunk group provides the System with the ability to act as an intermediate switch (through switch) in a private network and is capable of transmitting and receiving Traveling Class Marks as well as outpulsing 7-digit RNX-XXXX dialed numbers. A Traveling Class Mark represents a user's Facility Restriction Level (FRL), or the FRL of the user's trunk group.

Administration Commands

The following administration commands can be used to access the Tandem Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

- Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as “add” or “change.” Note that when supporting DCS, it is suggested that the far-end node trunk group be assigned the same “Group Number.”
- **Group Type**— Enter “tandem” to identify the type of trunk group.
- **SMDR Reports**— Enter “y” to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter “n.” Default is “y.”
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is “OUTSIDE CALL.”
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is “1.”

- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. A different TAC must be assigned to each trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is “incoming,” “outgoing,” or “two-way.” Default is “two-way.”
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are “y” or “n.” Default is “n.”
- **Dial Access**— Enter “y” to allow the trunk group to be accessed via a trunk access code; otherwise, enter “n.” Access via the ARS feature is allowed regardless of this entry. Default is “y.”
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is “99.”
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk Type is not “auto/....”
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A “0” indicates no calls will be held in queue. Enter “0” for DCS trunks. This field is turned off if the Direction field is “incoming.” Default is “0.”
- **Administrable Timers Page**— Only displayed for international applications. Entering a “y” causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers Page then becomes Page 3 of x. Valid entries are “y” or “n.” Default is “n.” (International G1.2SE only.)
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number (can be a VDN extension), 0 (attendant), or leave blank if Trunk Type is not “auto/....”
- **Comm Type**— Indicates if the trunk is to be used for voice, data, alternate voice-data (that is, avd), or alternate voice/voice grade data and 56 kbps digital data (that is, rbavd) calls. Allowable entries are “avd,” “rbavd,” “voice,” or “data.” Type “rbavd” supports access to voice/data SDN service on robbed-bit T1 transmission facilities. Default is “voice.” Note that “avd” and “rbavd” types require trunk member ports on a DS1 circuit pack. An “rbavd” type requires that the DS1 circuit pack be administered for robbed-bit signaling.
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint’s information transfer capability. The ITC field is displayed on G3i systems for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as “data,” “avd,” or “rbavd” and the BCC field is not set to “0.” This field is not displayed if the Comm Type field is administered as “voice,” nor is it displayed if the Comm Type field is administered as “data,” “avd,” or “rbavd” and the BCC field is set to “0.” Default is “rest” (ricted)."

- **BCC (Bearer Capability Class)**—Used by the Generalized Route Selection feature and identifies the type of traffic on trunks in the group. The BCC entry is used by far-end tandem switches to select outgoing routing facilities with equivalent BCC classes. Allowable entries are 0, 1, 2, 3, and 4. Default is 0 for “avd,” “rbavd,” and 2 for “data.” The BCC field is displayed when the Comm Type is “avd,” “rbavd,” or “data.”

Note: Refer to the GRS feature in *DEFINITY® Communications System Generic 1 and Generic 3i Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls.

- **Trunk Type (in/out)**— Identifies the physical type of incoming and outgoing trunks. Allowable entries are listed below.

auto/auto	auto/delay	auto/immed	auto/wink
delay/auto	delay/delay	delay/immed	delay/wink
immed/auto	immed/delay	immed/immed	immed/wink
wink/auto	wink/delay	wink/immed	wink/wink

- **Incoming Rotary Timeout (sec)**— Is the timing interval required by the central office that the System is connected to. If the System is connected to a step-by-step office, 18 or more seconds must be used; if the System is not connected to a step-by-step office, five or more seconds may be used. The maximum value is 99 seconds. Allowable entries are 5 through 99. Default is “5.”
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are “tone” or “rotary.” Default is “tone.”
- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are “tone” or “rotary.” Default is “tone.”
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving CO or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Default is “500.”
- **Digit Treatment**— Indicates if the digits entered are to be absorbed or inserted. No entry indicates no digit absorption or insertion. Allowable entries are “absorption” or “insertion.”
- **Digits**— Is the number of digits to be inserted or absorbed. This field is used with the Digit Treatment field. No entry indicates no digit absorption or insertion is done. Allowable entries are the number of digits to be absorbed (1 through five) or the actual digits to be inserted (up to five digits).
- **Connected to Toll**— Enter “y” if connected to a CO toll office, otherwise, enter “n” (default). This field is displayed when the Trunk Type field contains an entry of “auto/...,” “delay/...,” “wink/...,” or “immed/...” Default is “n.”
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is “n.” Specifies the loss plan to be used for the trunk group. Allowable entries are “normal” (default) or “low.” This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The “low” option (described as the ISL digital low loss plan in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DNI/ISDN-PRI Reference, 555-025-101*) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs.
3. All PBXs have the “low” option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk—voice or AVD DS1 interface) loss plans.
- **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss** (Digital Tie to Digital CO Trunk Loss)— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/...

This option affects the transmission performance of public network access via a private PBX network. “Low” is used when making a tandem connection from digital private network facilities to analog public network facilities. The “low” option does not apply to a Megacom facility or trunk group. Also, choose the “low” option if private network users complain about too much loss on calls to the public network otherwise, the “normal” option should be used. Normally, engineering support should be obtained in determining if the “low” loss option is to be used. Allowable entries are “normal” (default) and “low.” The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® Communications System Genetic 1 and System 75 and System 85 DS1/DNI/ISDN-PRI Reference, 555-025-101*.)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary

signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DM1/ISDN-PRI Reference, 555-025-101.*)

- **Incoming Dial Tone**— Indicates whether or not the trunk group will pass on incoming dial tone to the calling party. Allowable entries are “y” or “n.” Default is “y.”
- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are “300,” “1200,” “2400,” “4800,” “9600,” and “19200.” Default is “1200.” This field is only displayed when the Comm Type field is “avd.”
- **Synchronization**— Enter whether the trunk group will use “sync” (synchronous) or “async” (asynchronous) communications. This field is only displayed when the Comm Type field is “avd.” Default is “async.”
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are “full” or “half.” Default is “full.” This field is only displayed when the Comm Type field is “avd.”
- **Disconnect Supervision**— Enter “y” (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter “n” (no). Default is “y.” (International G1.1SE and G1.2SE).
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. Allowable entries are 0 through 250. Default is “10.”

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are “y” or “n.” Default is “n.” If “y” is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is “0,” the System will not consider long holding calls. Allowable entries are 0 through 10. Default is “1.”
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is “0,” the System will not consider short holding calls. Allowable entries are 0 through 160. Default is “10.”
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is “15.”
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are “internal,” “external,” “both,” “none.” Enter “internal” if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and “external” to send the data to the 3B CMS. Enter “both” to send the data to both systems for measurement reports or enter “none” if trunk group measurements are not required. System default is “none.”

- **Data Restriction**— Used to restrict features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are “y” or “n.” Default is “n.”
- **Used for DCS?**— Indicates whether or not the trunk will send and receive messages on a DCS Signaling Link. Allowable entries are “y” or “n.” If “y” is entered, complete the PBX ID field. Default is “n.”
- **PBX ID**— Identifies the remote PBX within the network that the trunk will communicate with on a DCS Signaling Link. Allowable entries are 1 through 63. Default is “1.”
- **Suppress # Outpulsing**— Indicates end-to-end signaling. Begins with (and includes) the “#” when “y” is entered in this field. The final # is suppressed in cases where the System would normally outpulse it. This field should be set to “y” when the central office (for example, rotary) or any other facility treats #as an error. Default is “n.”
- **Maintenance Test**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are “y” or “n.” Default is “y.”

Page 3 of the Form (Administrable Timers) (International G1.2SE only)

Note: This page is only displayed if “y” is entered in the Administrable Timers Page field on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “1000.”
- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is “600.”
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS,

PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is "5000."

- **Incoming Seizure (meet)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is "130."
- **PPS**— Enter either "10" or "20" to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are "10" or "20." Default is "10."
- **Make (msec)**— Enter the duration of the make interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is "40."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "20."

- **Break (msec)** —Enter the duration of the break interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is "60."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "30."

- **PPM**— Enter "y" (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter "n" (no). Valid entries are "y" or "n." Default is "n." (This field does not appear for DID, Tie, Tandem, or Access trunks.)

Pages 3 through 9 of the Form (Group Member Assignments)

Note: For International Systems, if "y" has been entered in the Administrable Times Page field on Page 1 of the form, the Group Member Assignments will appear on Pages 4 through 10 of the form.

Note: When supporting DCS, member number assignments must be the same between nodes (that is, Member #1 must be Member #1 at the far-end node trunk group).

- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 8).

- **Name**— Enter up to 10 characters to identify the member of the trunk (group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Previously, System 75 Night Service and Balance/Loss information was entered in the Name field as "NT#..." and "TT#)...." This information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Night**— Specifies a night destination for an individual trunk. This entry overrides the group Night Service entry on Page 1 of the form. Allowable entries are an extension (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type is not "auto."
- **Mode**— Specifies the signaling mode used on Tie Trunks when using TN760B circuit packs. Allowable entries are "e&m" (interface), "simplex" (phantomed), or "protected." This entry must correspond to associated dip switch settings on the circuit pack. No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Type**— When using TN760B circuit packs, this entry specifies the type of trunk used. Allowable entries are "t1 Stan" (Type 1 Standard), "t1 comp" (Type 1 Compatible), or "type 5." No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is "no entry (treated as a 0). The delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches.

TRUNK GROUP		Page 1 of 9
Group Number: _	Group Type: <u>tandem</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: _
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: _____
Queue Length: <u>0</u>	Incoming Destination: _	
Comm Type: <u>voice</u>		
TRUNK PARAMETERS		
Trunk Type (in/out): _____	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: _____	Digits: _____	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to Dco LOSS: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>
Answer Supervision Timeout? <u>10</u>		

SCREEN 5-131. Tandem Trunk Group Form (Page 1)—Example Only (Standard)

Implementation Note:

The BCC field is displayed when the Comm Type field entry is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "wink/...", or "immed/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The ITC (Information Transfer Capability) field appears for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES	ACA Assignment? <u>n</u>	Measured? <u>none</u>
	Long Holding Time(hours) : <u>1</u>	
	Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>
	Short Holding Threshold: <u>15</u>	
	Used for DCS? <u>n</u>	PBX ID: <u>1</u>
	Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>

SCREEN 5-132. Tandem Trunk Group Form (Page 2)—Example Only (Standard)**Implementation Note:**

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The PBX ID field is not displayed if the Used for DCS field is "n."

GROUP MEMBER ASSIGNMENTS						Page 3 of 9
Port	Name	Night	Mode	Type	Ans Delay	
1:						
2:						
3:						
4:						
5:						
6:						
7:						
8:						
9:						
10:						
11:						
12:						
13:						
14:						
15:						

SCREEN 5-133. Tandem Trunk Group Form (Page 3)—Example Only (Standard)

Note: To reduce repetition, pages 4 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 9 of 9
Port	Name	Night	Mode	Type	Ans Delay	
91:						
92:						
93:						
94:						
95:						
96:						
97:						
98:						
99:						

SCREEN 5-134. Tandem Trunk Group Form (Page 9)—Example Only (Standard)

TRUNK GROUP		Page 1 of X
Group Number: <u>71</u>	Group Type: <u>tandem</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u> </u>
Queue Length: <u>0</u>	Administrable Timer Page? <u>y</u>	Incoming Destination: <u> </u>
Comm Type: <u>voice</u>		
 TRUNK PARAMETERS		
Trunk Type (in/out): <u>auto/auto</u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: <u> </u>	Digi t s: <u> </u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to Dco LOSS: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Disconnect Supervision? <u>y</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-135. Tandem Trunk Group Form (Page 1)—
Example Only (International G12SE only)**

Implementation Note:

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "wink/...", or "immed/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

TRUNK FEATURES		Page 2 of 10
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
	Data Restriction? <u>n</u>	
Used for DCS? <u>n</u>		
Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

**SCREEN 5-136. Tandem Trunk Group Form (Page 2)—
Example Only (International G1.2SE only)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The PBX ID field is not displayed if the Used for DCS field is "n."

Page 3 of 10

ADMINISTRABLE TIMERS

Incoming Disconnect (msec): 300	Outgoing Disconnect (msec): 300
	Outgoing Dial Guard (msec): 1000
Incoming Glare Guard (msec): 3000	Outgoing Glare Guard (msec): 3000
	Outgoing Rotary Dial Interdigit (msec): 600
Ringing Monitor (msec): 5000	Incoming Seizure (msec): 130

OUTPULSING TIMING

PPS: 10	Make (msec): 40	Break (msec): 60	PPM? n

**SCREEN 5-137. Tandem Trunk Group Administrable Timers (Page 3)—
Example Only (International G1.2SE only)**

GROUP MEMBER ASSIGNMENTS

Page 4 of 10
Ans Delay

	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

**SCREEN 5-138. Tandem Trunk Group Form (Page 4)—
Example Only (International G1.2SE only)**

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS

Page 10 of 10

	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

**SCREEN 5-139. Tandem Trunk Group Form (Page 10)—
Example Only (International G1.2SE only)**

Implementation Note:

Above Group Member Assignments pages illustrate the resulting pagination when “y” is entered in the “Administrable Timers Page” field on Page 1 of the form; otherwise, Page numbers will be 3 through 9.

Tie Trunk Group

Purpose

This form is used to assign a Tie Trunk Group and associated trunk ports. The trunk group provides private access between the System and another PBX or CENTREX. The trunks are used to interconnect a satellite, tributary, and a main PBX in an Electronic Tandem Network. The trunk group can also be used to interface a 4ESS switch in support of Megacom service, Megacom 800 service, and Megacom 800 DNIS service.

Administration Commands

The following administration commands can be used to access the Tie Trunk Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	trunk-group	1-99 (or 'next')
change	trunk-group	1-99 or TAC X...
display	trunk-group	1-99 or TAC X...['print' or 'schedule']
list	trunk-group	['print' or 'schedule']
remove	trunk-group	1-99 or TAC X...

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change. Note that when supporting DCS, it is suggested that the far-end node trunk group be assigned the same "Group Number." Also assign consecutive Group Numbers to trunk groups when two or more trunk groups are to be used for ACD applications.
- **Group Type**— Enter "tie" to identify the type of trunk group.
- **SMDR Report**— Enter "y" to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter "n." Enter "y" if supporting Megacom services. Default is "y."
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is "OUTSIDE CALL."
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is "1."

- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. A different TAC must be assigned to each trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is incoming, outgoing, or two-way. Enter “outgoing” if Megacom service is supported, “incoming” if Megacom 800 service or Megacom 800 DNIS is supported. Default is “two-way.”
- **Outgoing Display**— Specifies whether or not the display of the trunk group name is suppressed on a terminal placing an outgoing call. Allowable entries are “y” or “n.” Default is “n.” Normally, enter “y” when supporting Megacom services.
- **Dial Access**— Enter “y” to allow the trunk group to be accessed via a trunk access code; otherwise, enter “n.” Access via the ARS feature is allowed regardless of this entry. Enter “y” when supporting Megacom services. Default is “y.”
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is “99.”
- **Night Service**— Enter the extension number assigned to Night Service. The number will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk Type field is “auto/...” Leave blank when supporting Megacom outbound service.
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A “0” indicates no calls will be held in queue. Default is “0.” This field is not displayed if the Direction field is “incoming.”
- **Administrable Timers Page**— Only displayed for international applications. Entering a “y” causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers Page then becomes Page 3 of x. Valid entries are “y” or “n.” Default is “n.” (International G1.2SE only.)
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type is not auto/... or when supporting Megacom outbound service.
- **Comm Type**— Indicates if the trunk is to be used for voice, data, alternate voice-data (that is, avd), or alternate voice/voice grade data and 56 kbps digital data (that is, rbavd) calls. Allowable entries are “avd,” “rbavd,” “voice,” or “data.” Type “rbavd” supports access to voice/data SDN service on robbed-bit T1 transmission facilities. Enter “voice” when supporting Megacom 800 DNIS. Default is “voice.” Note that “avd” and “rbavd” types require trunk member ports on a DS1 circuit pack. An “rbavd” type requires that the DS1 circuit pack be administered for robbed-bit signaling.
- **Auth Code**— Enter “y” if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter “n.” Default is “n.” This field can only be set to “y” if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form.
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint’s information transfer capability. The ITC field is displayed on G3i systems for non-ISDN trunk groups

only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0." This field is not displayed if the Comm Type field is administered as "voice," nor is it displayed if the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is set to "0." Default is "restricted."

- **BCC (Bearer Capability Class)**— Used by the GRS feature and identifies the type of traffic on trunks in the group. The BCC entry is used by far-end tandem switches to select outgoing routing facilities with equivalent BCC classes. Allowable entries are 0, 1, 2, 3, and 4. Default is 0 for "avd," "rbavd," and 2 for "data." The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Generic 3i Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls.

- **Trunk Type (in/out)**— Identifies the physical type of incoming and outgoing trunks. Allowable entries are listed below.

auto/auto	auto/delay	auto/immed	auto/wink
delay/auto	delay/delay	delay/immed	delay/wink
immed/auto	immed/delay	immed/immed	immed/wink
wink/auto	wink/delay	wink/immed	wink/wink

When supporting Megacom services, enter "auto/wink" for Megacom service and wink/auto for Megacom 800 DNIS and for Megacom 800 service. Enter "wink/wink" when the trunk group is used for DCS DS1 signaling.

- **Incoming Rotary Timeout (sec)**— Timing interval required by the CO that the System is connected to. If the System is connected to a step-by-step office, 18 or more seconds must be used; if the System is not connected to a step-by-step office, five or more seconds may be used. The maximum value is 99 seconds. Allowable entries are 5 through 99. Enter "5" when supporting Megacom services. Default is "5."
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are "automatic," "tone," or "rotary." When supporting Megacom services, enter "tone" for Megacom service and leave blank for Megacom 800 service and Megacom 800 DNIS. If connected to a 4ESS switch equipped with 4e9 software, enter "rotary" instead of "tone," where applicable. Default is "tone."
- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are "tone" or "rotary." Enter "tone" when supporting Megacom services. Default is "tone."
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving central office or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Enter "300" when connected to a step-by-step office, otherwise enter 200. Enter "500" when supporting Megacom services. Default is "500."

- **Digit Treatment**— Indicates if the digits entered are to be absorbed or inserted. No entry indicates no digit absorption or insertion. Allowable entries are “absorption” or “insertion.” Normally, leave blank when supporting Megacom services.
- **Digits**— Enter the number of digits to be inserted or absorbed. This field is used with the Digit Treatment field. No entry indicates no digit absorption or insertion is done. Allowable entries are the number of digits to be absorbed (1 through 5) or the actual digits to be inserted (up to five digits). Normally, leave blank when supporting Megacom services.
- **Connected to Toll**— Enter “y” if connected to a CO toll office, otherwise, enter “n” (default). This field is displayed when the Trunk Type field contains an entry of “auto/...,” “delay/...,” “wink/...,” or “immed/...”
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is “n.” Specifies the loss plan to be used for the trunk group. Allowable entries are “normal” (default) or “low.” This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The “low” option (described as the ISL digital low loss plan in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DML/ISDN-PRI Reference, 555-025-107*) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs.
3. All PBXs have the “low” option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk—voice or AVD DS1 interface) loss plans.
 - **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)**— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/....

This option affects the transmission performance of public network access via a private PBX network. "Low" is used when making a tandem connection from digital private network facilities to analog public network facilities. The "low" option does not apply to a Megacom facility or trunk group. Also, choose the "low" option if private network users complain about too much loss on calls to the public network; otherwise, the "normal" option should be used. Normally, engineering support should be obtained in determining if the "low" loss option is to be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference*, 555-025-101.)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® Communications System Generic 1 and System 75 and System 85 DS1/DMI/ISDN-PRI Reference*, 555-025-101.)
- **Incoming Dial Tone**— Indicates whether or not the trunk group will pass on incoming dial tone to the calling party. Allowable entries are "y" or "n." Enter "n" when supporting MEGCOM services. Default is "y."
- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are "300," "1200," "2400," "4800," "9600," and "19200." Default is "1200." This field is only displayed when the Comm Type field is "avd."
- **Synchronization**— Enter whether the trunk group will use "sync" (synchronous) or "async" (asynchronous) communications. This field is only displayed when the, Comm Type field is "avd." Default is "async."
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are "full" or "half." This field is only displayed when the Comm Type field is "avd." Default is "full."
- **Disconnect Supervision**— Enter "y" (yes) to indicate that the CO has the ability to release a trunk when the calling party releases from a call and the system is able to recognize the release signal; otherwise, enter "n" (no). Default is "y." (International G1.1SE and G1.2SE).
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. This time-out does not override network or firmware sent answer supervision. Allowable entries are 0 through 250. Default is "10."

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are “y” or “n.” Default is “n.” If “y” is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is “0,” the System will not consider long holding calls. Enter “1” for Megacom services. Allowable entries are 0 through 10. Default is “1.”
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is “0,” the System will not consider short holding calls. Enter “10” for Megacom services. Allowable entries are 0 through 160. Default is “10.”
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Enter “15” for Megacom services. Allowable entries are 0 through 30. Default is “15.”
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are “internal,” “external,” “both,” “none.” Enter “internal” if the data to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and “external” to send the data to the 3B CMS. Enter “both” to send the data to both systems for measurement reports or enter “none” if trunk group measurements are not required. System default is “n.”
- **Internal Alert**— Specifies if internal ringing and coverage will be used for incoming calls on this trunk group. Allowable entries are “y” and “n.” Default is “n.” Enter “n” when supporting Megacom services.
- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are “y” or “n.” Enter “n” when supporting Megacom services. Default is “n.”
- **Used for DCS**— Indicates whether or not the trunk will send and receive messages on a DCS Signaling Link. Allowable entries are “y” or “n.” If “y” is entered, complete the PBX ID field. Enter “n” if this trunk group is used for DCS signaling or for Megacom services. Enter “y” if used for DCS voice trunks. Default is “n.”
- **PBX ID**— Identifies the remote PBX within the network that the trunk will communicate with on a DCS Signaling Link. Allowable entries are 1 through 63. Default is “1.”
- **Suppress # Outpulsing**— Indicates end-to-end signaling begins with (and includes) the “#” when “y” is entered in this field. The final # is suppressed in cases where the System would normally outpulse it. This field should be set to “y” when the CO (for example, rotary) or any other facility treats #as an error. Enter “n” when supporting Megacom services. Default is “n.”
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are “y” or “n.” Default is “y.” Enter “y” when supporting Megacom services.

Page 3 of the Form (Administrable Timers) (International G1.2SE only)

Note: This page is only displayed if “y” is entered in the Administrable Timers Page field on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “1000.”
- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is “600.”
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is “5000.”
- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is “130.”
- **PPS**— Enter either “10” or “20” to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are “10” or “20.” Default is “10.”
- **Make (msec)**— Enter the duration of the make interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is “10,” the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is “40.”

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "20."

- **Break (msec)**— Enter the duration of the break interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is "10," the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is "60."

If the PPS field is "20," the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is "30."

- **PPM**— Enter "y" (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter "n" (no). Valid entries are "y" or "n." Default is "n." (This field does not appear for DID, Tie, Tandem, or Access trunks.)

Pages 3 through 9 of the Form (Group Member Assignments)

Note: For International Systems, if "y" has been entered in the Administrable Times Page field on Page 1 of the form, the Group Member Assignments will appear on Pages 4 through 10 of the form.

Note: When supporting DCS, Member Number Assignments must be the same between nodes (that is, Member #1 must be Member #1 at far-end node trunk group).

- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the Carrier (A through E); the third and fourth characters identify the slot number in the earner (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to ten characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Previously, System 75 Night Service and Balance/Loss information was entered in the Name field as "NT#..." and "TT#)..." This information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Night**— Specifies a night destination for an individual trunk. This entry overrides the group Night Service entry on Page 1 of the form. Allowable entries are an extension (can be a VDN extension), 0 (attendant), or leave blank if the Trunk Type is not "auto/..."

- **Mode**— Specifies the signaling mode used on Tie Trunks when using TN760B circuit packs. Allowable entries are “e&m” (interface), “simplex” (phantomed), or “protected.” This entry must correspond to associated dip switch settings on the circuit pack. No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Type**— When using TN760B circuit packs, this entry specifies the type of trunk used. Allowable entries are “t1 stan” (Type 1 Standard), “t1 comp” (Type 1 Compatible), or “type 5.” No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is “20.” This delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

If the System misinterprets a second wink signal from the far-end as answer supervision followed by disconnect supervision and drops associated calls, set Ans Delay to 300 to eliminate the problem.

TRUNK GROUP		Page 1 of 9
Group Number: _	Group Type: <u>tie</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: _
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: ____
Queue Length: <u>0</u>	Incoming Destination: _	
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type (in/out): ____	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: ____	Digits: ____	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>
Answer Supervision Timeout? <u>10</u>		

SCREEN 5-140. Tie Trunk Group Form (Page 1)—Example Only (Standard)

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "wink/...", or "immed/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The ITC (Information Transfer Capability) field appears for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
Long Holding Time(hours): <u>1</u>	Internal Alert? <u>n</u>	
Short Holding Time(secs.): <u>10</u>	Data Restriction? <u>n</u>	
Short Holding Threshold: <u>15</u>		
Used for DCS? <u>n</u>	PBX ID: <u>1</u>	
Suppress # OutPulsing? <u>n</u>	Maintenance Tests? <u>y</u>	

SCREEN 5-141. Tie Trunk Group Form (Page 2)—Example Only (Standard)**Implementation Note:**

The following fields are only displayed if the ACA Assignment field is “y”:

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The PBX ID field is not displayed if the Used for DCS field is “n.”

GROUP MEMBER ASSIGNMENTS						Page 3 of 9
Port	Name	Night	Mode	Type	Ans	Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

SCREEN 5-142. Tie Trunk Group Form (Page 3)—Example Only (Standard)

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 9 of 9
Port	Name	Night	Mode	Type	Ans	Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

SCREEN 5-143. Tie Trunk Group Form (Page 9)—Example Only (Standard)

TRUNK GROUP		Page 1 of x
Group Number: <u>71</u>	Group Type: <u>tie</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u> </u>
Queue Length: <u>0</u>	Administerable Timer Page? <u>y</u>	Incoming Destination: <u> </u>
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type (in/out): <u>auto/auto</u>	Incoming Rotary Timeout(sec): <u>5</u>	
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
	Disconnect Timing(msec): <u>500</u>	
Digit Treatment: <u> </u>	Digits: <u> </u>	
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Incoming Dial Tone? <u>y</u>		
Disconnect Supervision? <u>y</u>		
Answer Supervision Timeout? <u>10</u>		

**SCREEN 5-144. Tie Trunk Group Form (Page 1)—
Example Only (International G1.2SE only)**

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/...", "delay/...", "wink/...", or "immed/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

TRUNK GROUP		Page 2 of 9
TRUNK FEATURES	ACA Assignment? <u>n</u>	Measured? <u>none</u>
	Internal Alert? <u>n</u>	
	Data Restriction? <u>n</u>	
	Used for DCS? <u>n</u>	
	Suppress # Outpulsing? <u>n</u>	Maintenance Tests? <u>y</u>

**SCREEN 5-145. Tie Trunk Group Form (Page 2)—
Example Only (International G1.2SE only)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

The PBX ID field is not displayed if the Used for DCS field is "n."

Page 3 of 10

ADMINISTRABLE TIMERS

Incoming Disconnect (msec) :	300	Outgoing Disconnect (msec):	300
		Outgoing Dial Guard (msec):	1000
Incoming Glare Guard (msec):	3000	Outgoing Glare Guard (msec):	3000
		Outgoing Rotary Dial Interdigit (msec):	600
Ringing Monitor (msec):	5000	Incoming Seizure (msec):	130

OUTPULSING TIMING

PPS: 10	Make (msec): 40	Break (msec): 60	PPM? n

**SCREEN 5-146. Tie Trunk Group Administrable Timers Page—
Example Only (International G1.2SE only)**

GROUP MEMBER ASSIGNMENTS						Page 4 of 10
	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

**SCREEN 5-147. Tie Trunk Group Form (Page 4)—
Example Only (International G1.2SE only)**

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 10 of 10
Port	Name	Night	Mode	Type	Ans Delay	
91:	_____	_____	_____	_____	_____	
92:	_____	_____	_____	_____	_____	
93:	_____	_____	_____	_____	_____	
94:	_____	_____	_____	_____	_____	
95:	_____	_____	_____	_____	_____	
96:	_____	_____	_____	_____	_____	
97:	_____	_____	_____	_____	_____	
98:	_____	_____	_____	_____	_____	
99:	_____	_____	_____	_____	_____	

**SCREEN 5-148. Tie Trunk Group Form (Page 10)—
Example Only (International G1.2SE only)**

Implementation Note:

Above Group Member Assignments pages illustrate the resulting pagination when “y” is entered in the “Administrable Timers Page” field on Page 1 of the form; otherwise, Page numbers will be 3 through 9.

Wide Area Telecommunications Service Trunk Group

Purpose

This form is used to assign a Wide Area Telecommunications Service (WATS) Trunk Group and associated trunk ports. The trunk group provides access to/from a portion of the DDD network via dedicated trunks to/from a WATS serving office.

Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Group Number**— Enter a number from 1 through 99 when completing a paper form. Also assign consecutive Group Numbers to trunk groups when two or more trunk groups are to be used for ACD applications. This is a display only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter “WATS” to identify the type of trunk group.
- **SMDR Reports**— Enter “y” to provide a detailed SMDR record of both incoming and outgoing calls made on all trunks in the trunk group; otherwise, enter “n.” Default is “y.”
- **Group Name**— Enter a unique name that identifies the trunk group. Up to 15 characters can be used. Default is “OUTSIDE CALL.”
- **COR**— Enter a class of restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is “1.”
- **TAC**— Enter the trunk access code (TAC) that must be dialed to access the trunk group. A different TAC must be assigned to each trunk group. SMDR also uses the TAC to identify the trunk group on associated SMDR reports. Allowable entries are TACs that are compatible with the System Dial Plan (1 to 3 digits).
- **Direction**— Enter whether the trunk group is “incoming” or “outgoing.”
- **Outgoing Display**— Specifies whether or not the trunk group name is displayed on a terminal placing an outgoing call. Allowable entries are “y” or “n.” Default is “n.”
- **Dial Access**— Enter “y” to allow the trunk group to be accessed via a trunk access code; otherwise, enter “n.” Access via the ARS feature is allowed regardless of this entry. Default is “y.”
- **Busy Threshold**— Enter a number (0 through 99) of trunk group members that must be busy before the attendant is alerted by the Warning lamp on the Attendant Console. Default is “99.”
- **Night Service**— Enter the extension number assigned to Night Service. The extension number entered will receive all incoming calls when Night Service is activated and the individual trunk member Night field is not administered to override this entry. Allowable entries are an extension number, 0 (attendant), or leave blank.
- **Queue Length**— Enter a number from 0 through 100 that indicates the number of outgoing calls that can be held waiting. A “0” indicates no calls will be held in queue. This field is turned off if the Direction field is “incoming.” Default is “0.”

- **Administrable Timers Page**— Only displayed for international applications. Entering a “y” causes an Administrable Timers page to be added to the trunk group form. The Administrable Timers Page then becomes Page 3 of x. Valid entries are “y” or “n.” Default is “n.” (International G1.1SE and G1.2SE).
- **Incoming Destination**— Indicates where incoming calls will terminate. Allowable entries are an extension number, 0 (attendant), or leave blank if the Trunk Type field is not “auto/....”
- **Comm Type**— Indicates if the trunk is to be used for voice, data, alternate voice-data (that is, avd), or alternate voice/voice grade data and 56 Kbps digital data [(that is, robbed-bit alternate voice-data (rbavd))] calls. Allowable entries are “avd,” “rbavd,” “voice,” or “data.” Type “rbavd” supports access to voice/data SDN service on robbed-bit T1 transmission facilities. Default is “voice.” Note that “avd” and “rbavd” types require trunk member ports on a DS1 circuit pack. An “rbavd” type requires that the DS1 circuit pack be administered for robbed-bit signaling.
- **Auth Code**— Enter “y” if an Authorization Code must be dialed to complete incoming calls on the trunk group; otherwise, enter “n.” This field must be administered as “y” if the Authorization Codes feature is enabled on the System-Parameters Customer-Options form. Default is “n.”
- **Trunk Flash**— Enter “y” or “n” to indicate if access to customized services provided by a far end (for example, CO) is permitted for this trunk group. The PBX must be directly connected to a far end that provides such services. Default is “n.”
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint’s information transfer capability. The ITC field is displayed on G3i systems for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as “data,” “avd,” or “rbavd” and the BCC field is not set to “0.” This field is not displayed if the Comm Type field is administered as “voice,” nor is it displayed if the Comm Type field is administered as “data,” “avd,” or “rbavd” and the BCC field is set to “0.” Default is “restricted.”
- **BCC (Bearer Capability Class)**— Used by the GRS feature and identifies the type of traffic on trunks in the group. The BCC entry is used by far-end tandem switches to select outgoing routing facilities with equivalent BCC classes. Allowable entries are 0, 1, 2, 3, and 4. The BCC field is displayed when the Comm Type is “avd,” “rbavd,” or “data.”

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Generic 3i Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls.

- **Trunk Type**— Identifies the physical type of incoming and outgoing trunks. Allowable entries are “ground-start,” “loop-start,” “auto/auto,” “auto/delay,” “auto/immed,” “auto/wink.”
- **Outgoing Dial Type**— Identifies the type of pulsing required on an outgoing call. Allowable entries are “automatic,” “tone” or “rotary.” Default is “tone.”

- **Incoming Dial Type**— Indicates the type of pulses required on an incoming trunk group. Allowable entries are “tone” or “rotary.” Default is “tone.”
- **Trunk Termination**— Specifies how the trunk group is terminated. The trunk group can terminate in a resistance of 600 ohms or a resistor capacitor (rc) network. Allowable entries are “600ohms” or “rc.” 600ohms is used for short loops and rc is used for long loops. Default is “rc.”
- **Disconnect Timing (msec)**— Specifies the minimum time period in milliseconds that is required for recognition of disconnect by the serving CO or far-end PBX. The time interval must be in increments of 10 (from 140 to 2550 milliseconds). Default is “500.”
- **Connected to Toll**— Enter “y” if connected to a CO toll office, otherwise, enter “n” (default). This field is displayed when the Trunk Type field contains an entry of “auto/....” Default is “n.”
- **STT Loss (Satellite PBX Tie Trunk Loss)**— Only displayed when the Connected to Toll field is “n.” Specifies the loss plan to be used for the trunk group. Allowable entries are “normal” (default) or “low.” This option affects the transmission performance of a private PBX network.

Although the use of this option has wider applications, only for the simplest network arrangements should this field be administered without Network Engineering advise. The “low” option (described as the ISL digital low loss plan in *DEFINITY® 75/85 Communications System and System 75 and System 85 DS1/DMII/ISDN-PRI interface, 555-025-101*) should only be used when:

1. Stations on the satellite PBX complain of too much loss on calls to the public network.
2. The PBX network consists of no more than three PBXs; one main and one or two satellite PBXs (satellite PBX connected to main PBX via DS1 tie trunks, main PBX connected to public network via CO trunks).
3. All PBXs have the “low” option available.
4. The total DS1 trunk connection length is less than 100 miles.

If the above conditions are not met, obtain Network Engineering assistance. The field entry is based on the following:

- **normal**— Applies to AIU-TT (Analog Interface Unit at Customer Switching System for Tie Trunk—4-wire E&M interface), and DIU-TT (Digital Interface Unit at Customer Switching System for Tie Trunk-voice or AVD DS1 interface) loss plans.
 - **low**— Applies to AIU-TTS (same as AIU-TT, but suitable for private network connections that can be connected in tandem with public network connections) and DIU-TTS (same as DIU-TT, but suitable for private network connections that can be connected in tandem with public network connections). These interfaces were formerly referred to as DIU DTT ISL.
- **DTT to DCO Loss (Digital Tie to Digital CO Trunk Loss)**— Specifies the loss plan to be used for the trunk group for interconnections from a DIU-CO (Digital Interface Unit at a Central Office) to a DIU-DTT (Digital Interface Unit for a Digital Tie Trunk Interface). This field is displayed when the Trunk Type field contains an entry of auto/..., delay/..., wink/..., or immed/....

This option affects the transmission performance of public network access via a private PBX network. Choose the "low" option only if private network users complain about too much loss on calls to the public network, otherwise, the "normal" option should be used. Allowable entries are "normal" (default) and "low." The entry is based on the following:

- **normal**— Corresponds to a (0, -6) dB gain pair and is used as the default option. (This corresponds to the DTT/EIA DCO port to port configuration as described in *DEFINITY® 75/85 Communications System and System 75 and System 85 DS1/DMI/ISDN-PRI Interface, 555-025-101.*)
- **low**— Corresponds to (+3, -3) dB gain pair. Low is used for internetwork applications in which no significant configuration will encounter echo, stability, or overload problems because of reduced loss. With the low gain pair, subscriber station DTMF signals transmitted through the digital class five office into the customer network may experience non-recoverable digit mutilation in secondary signaling applications (that is, DTMF signaling after the connection has been established). (This corresponds to the DTT/ISL DCO port to port configuration as described in *DEFINITY® 75/85 Communications System and System 75 and System 85 DS1/DMI/ISDN-PRI Interface, 555-025-101.*)
- **Terminal Balanced**— Specifies whether the trunks in the trunk group are balanced. A "y" signifies that the trunks are terminally balanced and an "n" signifies that the trunks are not terminally balanced. Typically, a Trunk Termination field of "600ohm" signifies a balanced trunk group and a field of "rc" signifies a non-balanced trunk group. If the trunks in this group pass the Low Frequency Return Loss test requirements, then they are terminally balanced, and this field should be set to "y." This field is only displayed when the Trunk Type field is "ground-start" or "loop-start." Since most trunks are not balanced, the default is "n."
- **RA Trunk Loss**— (Remote Access Trunk Loss) Specifies the type of dB loss to be applied to non-terminally balanced trunks (Terminal Balanced field= "n"). The 0dB entry is used in both directions as the default option. If unsatisfactory echo performance (hollowness) is experienced, the field should be reset to 2dB. Allowable entries are "0db" and "2db." This field is only displayed when the Terminal Balanced field entry is "n."
- **Bit Rate**— Specifies the baud rate to be used by pooled modems. Allowable entries are "300," "1200," "2400," "4800," "9600," and "19200." Default is "1200." This field is only displayed when the Comm Type field is "avd."
- **Synchronization**— Enter whether the trunk group will use "sync" (synchronous) or "asynch" (asynchronous) communications. This field is only displayed when the Comm Type field is "avd." Default is "asynch."
- **Duplex**— Specifies either full or half duplex for the trunk group. Allowable entries are "full" or "half." This field is only displayed when the Comm Type field is "avd." Default is "full."
- **Answer Supervision Timeout**— Indicates the amount of time in seconds the System allows for the call to be answered before beginning an SMDR record of a call. This interval begins as soon as the outgoing trunk is seized. The time-out does not override network or firmware sent answer supervision. When the Receive Answer Supervision field is "y," this field should be set to a "0" to disable the firmware time-out. Allowable entries are 0 through 250. Default is "10."

- **Receive Answer Supervision**— Specifies whether or not the trunks provide answer supervision from the network and is used by the OCM and SMDR features. Answer supervision refers to notification from the far-end that the called party has gone off-hook to answer the call. When answer supervision is not provided, the originating PBX can classify a call as answered using the Answer Supervision Timeout field entry. For trunks over which answer supervision is provided by the network (for example, certain ground-start CO trunks), this field should be set to “y” and the Answer Supervision Timeout field set to “0” to disable the firmware time-out. Receive Answer Supervision must be “n” when the Direction field entry is “incoming.” Allowable entries are “y” and “n.” Default is “n.”

Page 2 of the Form

- **ACA Assignment?**— Specifies whether or not Automatic Circuit Assurance (ACA) measurements will be taken for this trunk group. Allowable entries are “y” or “n.” Default is “n.” If “y” is entered, complete the next three fields.
- **Long Holding Time (hours)**— Is the length in hours that the System will consider as being a long holding time. If the value entered is “0,” the System will not consider long holding calls. Allowable entries are 0 through 10. Default is “1.”
- **Short Holding Time (secs.)**— Specifies the length in seconds that the System will consider as being a short holding time. If this field is “0,” the System will not consider short holding calls. Allowable entries are 0 through 160. Default is “10.”
- **Short Holding Threshold**— Is the number of times that the System will record a short holding call before an attendant or display-equipped voice terminal user is alerted to the possibility of a faulty trunk. Allowable entries are 0 through 30. Default is “15.”
- **Measured**— Indicates if the System will transmit data for this trunk group to the CMS. Allowable entries are “internal,” “external,” “both,” “none.” Enter “internal” if the data is to be sent to the BCMS (that is, internal to the switch) for subsequent measurement reports and “external” to send the data to the 3B CMS. Enter “both” to send the data to both systems for measurement reports or enter “none” if trunk group measurements are not required. System default is “none.”
- **Abandoned Call Search**— Enter a “y” if this trunk group will conduct an Abandoned call Search to identify a ghost call; otherwise, enter “n.” This field is only applicable if Trunk Type is “ground-start.” Default is “n.”

Note: Abandoned Call Search is designed to work with CO trunks (ground start - analog) that do not provide disconnect supervision. CO that provide disconnect supervision do not require use of the Abandoned Call Search feature. Note that the CO must support Abandoned Call Search for the feature to work properly.

- **Data Restriction**— Is used to restrict System features from causing overriding tones on a trunk group. This provides permanent protection. Allowable entries are “y” or “n.” Default is “n.”
- **Maintenance Tests**— Indicates whether or not maintenance tests will be performed on an hourly basis for this trunk group. Allowable entries are “y” or “n.” Default is “y.”

- **Suppress # Outpulsing**— Indicates end-to-end signaling begins with (and includes) the “#” when “y” is entered in this field. The final # is suppressed in cases where the System would normally outpulse it. This field should be set to “y” when the central office (for example, rotary) or any other facility treats # as an error. Default is “n.”

Page 3 of the Form (Administrable Timers) (International G1.1SE and G1.2SE)

Note: This page is only displayed if “y” is entered in the Administrable Timers Page field on Page 1 of the form.

- **Incoming Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an incoming call from the serving CO. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Disconnect (msec)**— Enter the minimum time (in msec) required for recognition of disconnect for an outgoing call. Valid entries are 50 through 12750 in increments of 50. The field cannot be blank. Default is “300.”
- **Outgoing Dial Guard (msec)**— Enter the minimum time (in msec) between seizure of the trunk and outpulsing of digits. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “1000.”
- **Incoming Glare Guard (msec)**— Enter the incoming guard time (in msec) between the time the incoming trunk is released and the same trunk can be seized again. This guard time will ensure the far-end has released all equipment after the incoming trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Glare Guard (msec)**— Enter the outgoing guard time (in msec) between the time the outgoing trunk is released and the same trunk can be seized again. This guard time will ensure that the far-end has released all equipment after the outgoing trunk is released. Valid entries are 200 through 25600 in increments of 200. The field cannot be blank. Default is “3000.”
- **Outgoing Rotary Dial Interdigit (msec)**— Enter the interval (in msec) between rotary dial digits being outpulsed by the system (that is, PBX). Valid entries are 150 through 2550 in increments of 10. The field cannot be blank. Default is “600.”
- **Ringing Monitor (msec)**— Enter the minimum time (in msec) required to determine if the trunk is disconnected. If the ringing signal disappears for a duration longer than the time specified in this field, the call will be assumed to be disconnected. For CO, FX, WATS, PCOL, DID, and DIOD, valid entries are 200 through 51000 in increments of 200. For Tie, Tandem and Access, valid entries are 200 through 25500 in increments of 100. The field cannot be blank. Default is “5000.”
- **Incoming Seizure (msec)**— Enter the minimum time (in msec) required for recognition of incoming ringing signal from the serving CO. Valid entries are 20 through 2550 in increments of 10. The field cannot be blank. Default is “130.”
- **PPS**— Enter either “10” or “20” to specify the PPS (pulses per second) assigned to rotary dial pulse trunk groups. Valid entries are “10” or “20.” Default is “10.”

- **Make (msec)**— Enter the duration of the make interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is “10,” the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is “40.”

If the PPS field is “20,” the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is “20.”

- **Break (msec)**— Enter the duration of the break interval while the system is outpulsing digits using dial pulse signaling.

If the PPS field is “10,” the sum of the Make and Break fields must equal 100. Valid entries are 20 through 80 in increments of 5. The field cannot be blank. The default is “60.”

If the PPS field is “20,” the sum of the Make and Break fields must equal 50. Valid entries are 10 through 40 in increments of 5. The field cannot be blank. The default is “30.”

- **PPM**— Enter “y” (yes) if PPM pulses are to be collected to determine outgoing call billing, otherwise enter “n” (no). Valid entries are “y” or “n.” Default is “n.” This field does not appear for DID, Tie, Tandem, or Access trunks.)

Pages 3 through 9 of the Form (Group Member Assignments)

Note: For International Systems, if “y” has been entered in the Administrable Times Page field on Page 1 of the form, the Group Member Assignments will appear on Pages 4 through 10 of the form.

- **Port**— Enter five to six characters. The first character identifies the network (1 through 2, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter up to 10 characters to identify the member of the trunk group. The name can be a 7-digit telephone number or a 10-digit Trunk Circuit Identification number (provided by trunk supplier).

Note: Previously, System 75 Night Service and Balance/Loss information was entered in the Name field as “NT#...” and “TT#)....” This information must now be entered in the Night field (below) or the STT Loss field on Page 1 of the form, as applicable.

- **Night**— Specifies a night destination for an individual trunk. This entry overrides the group Night Service entry on Page 1 of the form. Allowable entries are an extension, 0 (attendant), or leave blank if the Trunk Type entry on Page 1 is not “auto/...”

- **Mode**— Specifies the signaling mode used on Tie Trunks when using TN760B circuit packs. Allowable entries are “e&m” (interface), “simplex” (phantomed), or “protected.” This entry must correspond to associated dip switch settings on the circuit pack. No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Type**— When using TN760B circuit packs, this entry specifies the type of trunk used. Allowable entries are “t1 stan” (Type 1 Standard), “t1 comp” (Type 1 Compatible), or “type 5.” No entry should be made in this field when using TN722, TN722B, TN767, or TN464C (International G1.2SE only) circuit packs.
- **Ans Delay**— Specifies the length of the wait for answer supervision delay in milliseconds for DS1 or Tie Trunks using the TN722A, TN722B, TN760 (B, C, or D), TN767, or TN464C (International G1.2SE only) circuit packs. Allowable entries are 20 through 5100 in increments of 20. The default is no entry (blank) and internally treated as a 0. This delay serves two purposes:
 1. Used to assure that the answer supervision signal is valid and not a secondary delay-dial or wink-start signal.
 2. Used to bridge over momentary off-hook signals resulting from connections made off-network through certain No. 5 Crossbar CCSA switches as the connection is being established.

TRUNK GROUP		Page 1 of 9
Group Number: <u> </u>	Group Type: <u>wats</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u> </u>
Direction: <u> </u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u> </u>
Queue Length: <u>0</u>	Incoming Destination: <u> </u>	
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	
	Trunk Flash? <u>n</u>	BCC: <u>0</u>
TRUNK PARAMETERS		
Trunk Type: <u> </u>		
Outgoing Dial Type: <u>tone</u>		Incoming Dial Type: <u>tone</u>
Trunk Termination: <u>rc</u>		Disconnect Timing(msec): <u>500</u>
Connected to Toll? <u>n</u>	STT Loss: <u>normal</u>	DTT to DCO Loss: <u>normal</u>
Terminal Balanced? <u>n</u>		RA Trunk Loss: <u>0db</u>
Bit Rate: <u>1200</u>	Synchronization: <u>async</u>	Duplex: <u>full</u>
Answer Supervision Timeout? <u>10</u>	Receive Answer Supervision? <u>n</u>	

SCREEN 5-149. WATS Trunk Group Form (Page 1)—Example Only (Standard)**Implementation Notes:**

The BCC field is displayed when the Comm Type is "avd," "rbavd," or "data"

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/..."

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Terminal Balanced field is only displayed when the Trunk Type is "ground-start" or "loop-start." The RA Trunk Loss is only displayed when the Terminal Balanced field is "n."

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The Trunk Flash field is only displayed when the Group Type field is "co," "fx," or "wats."

The ITC (Information Transfer Capability) field is displayed on G3i systems for non-ISDN trunk groups only and is displayed and administrable only when the Comm Type field is administered as "data," "avd," or "rbavd" and the BCC field is not set to "0."

TRUNK GROUP		Page 2 of 9
 TRUNK FEATURES		
ACA Assignment? <u>n</u>	Long Holding Time(hours): <u>1</u>	
Short Holding Time(secs.): <u>10</u>	Short Holding Threshold: <u>15</u>	
Measured? <u>none</u>	Abandoned Call Search: <u>n</u>	
	Data Restriction? <u>n</u>	
Maintenance Tests? <u>y</u>		
Suppress # Outpulsing? <u>n</u>		

SCREEN 5-150. WATS Trunk Group Form (Page 2)— Example Only (Standard)

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

GROUP MEMBER ASSIGNMENTS					Page 3 of 9	
	Port	Name	Night	Mode	Type	
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

SCREEN 5-151. WATS Trunk Group Form (Page 3)—Example Only (Standard)

Note: To reduce repetition, pages 4 through 8 are not shown.

GROUP MEMBER ASSIGNMENTS					Page 9 of 9	
	Port	Name	Night	Mode	Type	
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

SCREEN 5-152. WATS Trunk Group Form (Page 9)—Example Only (Standard)

TRUNK GROUP		Page 1 of x
Group Number: <u>71</u>	Group Type: <u>wats</u>	SMDR Reports? <u>y</u>
Group Name: <u>OUTSIDE CALL</u>	COR: <u>1</u>	TAC: <u>601</u>
Direction: <u>two-way</u>	Outgoing Display? <u>n</u>	
Dial Access? <u>y</u>	Busy Threshold: <u>99</u>	Night Service: <u> </u>
Queue Length: <u>0</u>	Administrable Timer Page? <u>n</u>	Incoming Destination: <u> </u>
Comm Type: <u>voice</u>	Auth Code? <u>n</u>	
TRUNK PARAMETERS		
Trunk Type: <u>loop-start</u>		
Outgoing Dial Type: <u>tone</u>	Incoming Dial Type: <u>tone</u>	
Trunk Termination: <u>rc</u>	Disconnect Timing(msec): <u>500</u>	
Terminal Balanced? <u>n</u>	RA Trunk Loss: <u>0db</u>	
Disconnect Supervision? <u>y</u>		
Answer Supervision Timeout? <u>10</u>	Receive Answer Supervision? <u>n</u>	

**SCREEN 5-153. WATS Trunk Group Form (Page 1)—
Example Only (International G1.1SE and G12SE)**

Implementation Notes:

The BCC field is displayed when the Comm Type is "avd," "rbavd" or "data."

The Connected to Toll and DTT to DCO Loss fields are only displayed when the Trunk Type field is "auto/"

The STT Loss field is only displayed when the Connected to Toll field is "n."

The Terminal Balanced field is only displayed when the Trunk Type is "ground-start" or "loop-start." The RA Trunk Loss is only displayed when the Terminal Balanced field is "n"

The Bit Rate, Synchronization, and Duplex fields are only displayed when the Comm Type field is "avd."

The Trunk Flash field is only displayed when the Group Type field is "co," "fx" or "wats."

TRUNK GROUP		Page 2 of 10
TRUNK FEATURES		
ACA Assignment? <u>n</u>	Measured? <u>none</u>	
	Data Restriction? <u>n</u>	
Abandoned Call Search? <u>n</u>	Maintenance Tests? <u>y</u>	
Suppress # Outpulsing? <u>n</u>		

**SCREEN 5-154. WATS Trunk Group Form (Page 2)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

The following fields are only displayed if the ACA Assignment field is "y":

- Long Holding Time (hours)
- Short Holding Time (secs.)
- Short Holding Threshold

Page x of 10

ADMINISTRABLE TIMERS

Incoming Disconnect (msec) :	300	Outgoing Disconnect (msec) :	300
		Outgoing Dial Guard (msec):	1000
Incoming Glare Guard (msec):	3000	Outgoing Glare Guard (msec):	3000
		Outgoing Rotary Dial Interdigit (msec):	600
Ringing Monitor (msec):	5000	Incoming Seizure (msec):	130

OUTPULSING TIMING

PPS: 10 Make (msec): 40 Break (msec): 60 PPM? n

**SCREEN 5-155. WATS Trunk Group Administrable Timers Page—
Example Only (International G1.1SE and G1.2SE)**

GROUP MEMBER ASSIGNMENTS

Page 4 of 10

	Port	Name	Night	Mode	Type	Ans Delay
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
10:	_____	_____	_____	_____	_____	_____
11:	_____	_____	_____	_____	_____	_____
12:	_____	_____	_____	_____	_____	_____
13:	_____	_____	_____	_____	_____	_____
14:	_____	_____	_____	_____	_____	_____
15:	_____	_____	_____	_____	_____	_____

SCREEN 5-156. WATS Trunk Group Form (Page 4)—
Example Only (International G1.1SE and G1.2SE)

Note: To reduce repetition, pages 5 through 9 are not shown.

GROUP MEMBER ASSIGNMENTS						Page 10 of 10
	Port	Name	Night	Mode	Type	Ans Delay
91:	_____	_____	_____	_____	_____	_____
92:	_____	_____	_____	_____	_____	_____
93:	_____	_____	_____	_____	_____	_____
94:	_____	_____	_____	_____	_____	_____
95:	_____	_____	_____	_____	_____	_____
96:	_____	_____	_____	_____	_____	_____
97:	_____	_____	_____	_____	_____	_____
98:	_____	_____	_____	_____	_____	_____
99:	_____	_____	_____	_____	_____	_____

**SCREEN 5-157. WATS Trunk Group Form (Page 10)—
Example Only (International G1.1SE and G1.2SE)**

Implementation Note:

Above Group Member Assignments pages illustrate the resulting pagination when “y” is entered in the “Administrable Timers Page” field on Page 1 of the form; otherwise, Page numbers will be 3 through 9.

CHAPTER 6. FORMS FOR SYSTEM FEATURES AND SERVICES

Overview

This chapter contains the forms and associated instructions required to implement the System's voice management, data management, call management, and hospitality features, functions, and Services.

The forms included in this chapter are those forms dedicated primarily for non-network type features such as voice management and data management. Chapter 5 contains the forms dedicated to networking such as AAR, ARS, CAS, DCS, DS1 Tie Trunk Service, ISDN, and trunk groups. Multi-use forms such as the Dial Plan and Feature Access Codes that support both network, voice management, data management, etc., are covered in this chapter.

The forms are accurate representations of the screens that will be displayed on the System's administration terminal. Default data that is shown when the form is displayed is provided on the forms.

In addition, administration commands required to access the forms are provided along with each form's coverage. In some cases, just the most commonly used commands are given. Chapter 3 provides a complete listing of the System's administration commands and describes the "make-up" of the command line. Specifically, the "action," "object," and "qualifier" command words are described in detail.

Blank forms (without default data) are provided in the Blank Forms Package and may be reproduced as required. The copies are to be used as worksheets when using this manual to assign features and services. The completed forms are later used with administration commands contained in Chapter 3 and system management information contained in the *DEFINITY® Communications System Generic 1 and Generic 3—System Management*, 555-230-500, to implement the System. The hard copy forms should then be retained as part of the System's hard copy records.

Abbreviated Dialing-Enhanced List

Purpose

The following forms are used to implement an Enhanced Abbreviated Dialing List. The Enhanced List consists of 10 separate forms numbered from 0 through 9, which allows up to 1000 numbers to be assigned that can be accessed by users to place local, long-distance, and international calls; to activate/deactivate features or to access remote computer equipment.

Note: The Abbreviated Dialing Enhanced List option must be enabled on the System-Parameters Customer-Options form before an Enhanced List can be administered.

The forms used to enter the 1000 enhanced dial code list entries are divided as follows

- Form 0 is used to assign dial code list entries 000 through 099
- Form 1 is used to assign dial code list entries 100 through 199
- Form 2 is used to assign dial code list entries 200 through 299
- Form 3 is used to assign dial code list entries 300 through 399
- Form 4 is used to assign dial code list entries 400 through 499
- Form 5 is used to assign dial code list entries 500 through 599
- Form 6 is used to assign dial code list entries 600 through 699
- Form 7 is used to assign dial code list entries 700 through 799
- Form 8 is used to assign dial code list entries 800 through 899
- Form 9 is used to assign dial code list entries 900 through 999.

Only one Enhanced Abbreviated Dialing List can be assigned in the System. The list is controlled by the System Manager. Up to 8000 abbreviated dialing list entries (includes enhanced, system, group, and personal lists) may be administered in the System.

Administration Commands

The following administration commands can be used to access the Abbreviated Dialing Enhanced List form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier
add	abbreviated-dialing enhanced	Enter form number between 0 and 9
change	abbreviated-dialing enhanced	Enter form number between 0 and 9
display	abbreviated-dialing enhanced	Enter form number between 0 and 9
remove	abbreviated-dialing enhanced	Enter form number between 0 and 9

Form Instructions

Make assignments as required for the following fields on each page of the form. Note that the screen form example is only Form 0.

Page 1 of the Form

- **Size (multiple of five)**— Enter the number of dial code list entries that will be entered on the form. Up to 100 entries perform are allowed. The size must be entered in multiples of five up to 100. Default is “5.”
- **Privileged**— Enter “y” or “n.” If “y” is entered, the originating party’s class of restriction (COR) is never checked and any number in the list will be dialed. If “n” is entered, the COR is checked to determine if the number can be dialed. Default is “n.”

Pages 1 through 4 of the Form

- **DIAL CODE**— Enter the numbers you want to assign to each dial code. Up to 24 characters can be used for each entry. Note that a VDN extension may also be assigned.

Allowable entries for each dial code are:

- digits 0 through 9
- [*] (star) used for a feature activation code
- [#] (pound) used for a feature deactivation code
- special characters (count as two characters each):
 - ~p (pause)
 - ~w (wait)
 - ~m (mark)
 - ~s (suppress)

See Abbreviated Dialing in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of the special characters.

Page 1 of 4

ABBREVIATED DIALING LIST

Enhanced List

Size (multiple of 5) : 5Privileged? n

DIAL CODE

000: _____

001: _____

002: _____

003: _____

004: _____

005: _____

006: _____

007: _____

008: _____

009: _____

010: _____

011: _____

012: _____

013: _____

014: _____

015: _____

016: _____

017: _____

018: _____

019: _____

020: _____

021: _____

022: _____

023: _____

024: _____

025: _____

026: _____

027: _____

028: _____

029: _____

SCREEN 6-1. Abbreviated Dialing Enhanced List—Form 0 (Page 1)—Example Only

Page 2 of 4

ABBREVIATED DIALING LIST

Enhanced List

DIAL CODE

030: _____	045: _____
031: _____	046: _____
032: _____	047: _____
033: _____	048: _____
034: _____	049: _____
035: _____	050: _____
036: _____	051: _____
037: _____	052: _____
038: _____	053: _____
039: _____	054: _____
040: _____	055: _____
041: _____	056: _____
042: _____	057: _____
043: _____	058: _____
044: _____	059: _____

SCREEN 6-2. Abbreviated Dialing Enhanced List—Form 0 (Page 2)—Example Only

ABBREVIATED DIALING LIST

Enhanced List

DIAL CODE

060: _____	075: _____
061: _____	076: _____
062: _____	077: _____
063: _____	078: _____
064: _____	079: _____
065: _____	080: _____
066: _____	081: _____
067: _____	082: _____
068: _____	083: _____
069: _____	084: _____
070: _____	085: _____
071: _____	086: _____
072: _____	087: _____
073: _____	088: _____
074: _____	089: _____

SCREEN 6-3. Abbreviated Dialing Enhanced List—Form 0 (Page 3)—Example Only

Page 4 of 4

ABBREVIATED DIALING LIST

Enhanced List

DIAL CODE

090: _____

091: _____

092: _____

093: _____

094: _____

095: _____

096: _____

097: _____

098: _____

099: _____

SCREEN 6-4. Abbreviated Dialing Enhanced List—Form 0 (Page 4)—Example Only

Implementation Note

To reduce repetition, Forms 1 through 9 are not shown. For a complete set of blank forms, refer to the Blank Forms Package.

Abbreviated Dialing—Group List

Purpose

This form is used to implement the Abbreviated Dialing Group List. Up to 100 lists can be assigned. The Group Lists are controlled by the System Manager. Up to 8000 Abbreviated Dialing list entries (includes enhanced, group, system, and personal lists) may be administered in the System. Up to 90 numbers can be entered per group list which can be accessed by users to place local, long-distance, and international calls; to activate/deactivate features; or to access remote computer equipment.

Administration Commands

The following administration commands can be used to access the Abbreviated Dialing Group List form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	abbreviated-dialing group	1-100 (or 'next')
change	abbreviated-dialing group	1-100
display	abbreviated-dialing group	1-100 ['print' or 'schedule']
list	abbreviated-dialing group	[xx] ('count' 1-100) ['print' or 'schedule']
remove	abbreviated-dialing group	1-100

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments, as required, for the following fields on each page of the form:

Page 1 of the Form

- **Group List—** Enter a group number from 1 through 100 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as “add” or “change.”
- **Size (multiple of five)—** Enter the number of abbreviated dialing codes you want to assign. The number must be entered in multiples of five, for example, 5, 10, 15, up to 90. Default is “5.”
- **Privileged—** Enter “y” or “n.” If “y” is entered, the calling voice terminal’s COR is never checked and any number in the group list will be dialed. If “n” is entered, the calling voice terminal’s COR is checked to determine if the number can be dialed. Default is “n.”

Pages 1 through 3 of this Form

- **DIAL CODE**— Enter the numbers you want to assign to each dial code. Up to 24 characters can be used for each entry. Note that a VDN extension may also be assigned.

Allowable entries for each dial code are:

- digits 0 through 9
- [*] (star) used for a feature activation code
- [#] (pound) used for a feature deactivation code
- special characters (count as two characters each):
 - ~p (pause)
 - ~w (wait)
 - ~m (mark)
 - ~s (suppress)

See Abbreviated Dialing in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of special characters.

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ABBREVIATED DIALING LIST

Group List: _____

Size (multiple of 5): 5

Privileged? n

DIAL CODE

11: _____	26: _____
12: _____	27: _____
13: _____	28: _____
14: _____	29: _____
15: _____	30: _____
16: _____	31: _____
17: _____	32: _____
18: _____	33: _____
19: _____	34: _____
20: _____	35: _____
21: _____	36: _____
22: _____	37: _____
23: _____	38: _____
24: _____	39: _____
25: _____	40: _____

SCREEN 6-5. Abbreviated Dialing Group List Form (Page 1)—Example Only**Implementation Note:**

The default value for the Size field is 5. Therefore, only DIAL CODES 11 through 15 will be displayed initially. This form becomes two pages for Size field entries of 35 through 60 and three pages for entries of 65 through 90.

To reduce repetition, Page 2 and Page 3 are not shown. For a complete set of blank forms, refer to the Blank Forms Package.

Abbreviated Dialing—Personal List

Purpose

This form is used to establish a personal dialing list for voice terminal/data module users. The personal list must first be assigned to the voice terminal by the System Manager before the voice terminal user can add entries to the list. Up to 1600 personal lists can be assigned in the System. The lists can be accessed by users to place local, long-distance, and international calls; to activate/deactivate features; or to access remote computer equipment. Up to 8000 list entries (includes enhanced, group, system, and personal lists) can be administered in the System.

Administration Commands

The following administration commands can be used to access the Abbreviated Dialing Personal List form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	abbreviated-dialing personal	xxxx (extension number of assigned object with a personal list) and List 1-3 or 'next'
change	abbreviated-dialing personal	xxxx (extension number of assigned personal list) and List 1-3
display	abbreviated-dialing personal	xxxx (extension number of assigned personal list) and List 1-3 ['print' or 'schedule']
list	abbreviated-dialing personal	xxxx (extension and 'count' 1-1600 ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Personal List**— Enter the extension number of the voice terminal that will use this list.
- **List Number**— Enter a number from 1 through 3. This number identifies each of the three personal lists that can be assigned to the voice terminal.
- **Size (five or 10)**— Enter the number of personal abbreviated dialing numbers you want to assign. Default is "5."
- **DIAL CODE**— Enter the numbers you want to assign to each dial code. Up to 24 characters can be used for each entry. Note that a VDN extension may also be assigned.

Allowable entries for each dial code are:

- digits 0 through 9
- [*] (star) used for a feature activation code

- # (pound) used for a feature deactivation code
- special characters (count as two characters each):
 - ~p (pause)
 - ~w (wait)
 - ~m (mark)
 - ~s (suppress)

See Abbreviated Dialing in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of special characters.

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ABBREVIATED DIALING LIST
 Personal List: _ List Number: _
 Size (multiple of 5) : 5

DIAL CODE	
1: _____	6: _____
2: _____	7: _____
3: _____	8: _____
4: _____	9: _____
5: _____	0: _____

SCREEN 6-6. Abbreviated Dialing Personal List Form—Example Only

Implementation Note:

The default value for Size is "5." Therefore, only DIAL CODES 1 through 5 will be displayed initially. DIAL CODES 6 through 0 will also be displayed if the Size field is "10."

Abbreviated Dialing—System List

Purpose

This form is used to implement a System abbreviated dialing list. Only one system list can be assigned and is administered by the System Manager. The list can be accessed by users to place local, long-distance, and international calls; to activate/deactivate features; or to access remote computer equipment. Up to 8000 list entries (includes enhanced, group, system, and personal lists) may be administered in the System.

Administration Commands

The following administration commands can be used to access the Abbreviated Dialing System List form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	abbreviated-dialing system	—
change	abbreviated-dialing system	—
display	abbreviated-dialing system	['print' or 'schedule']
remove	abbreviated-dialing system	—

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Size (multiple of five)**— Enter the number of abbreviated dialing numbers to be assigned. This number must be entered in multiples of five, for example, 5, 10, 15, through 90 can be entered. Default is “30.”
- **Privileged**— Enter “y” if the originating party’s COR is never checked and any number in the list can be dialed. Enter “n” if the COR is to be checked to determine if the number can be dialed. Default is “n.”

Pages 1 through 3 of the Form

- **DIAL CODE**— Enter the numbers you want to assign to each dial code. Up to 24 characters can be used for each entry. A maximum of 90 entries can be assigned. Note that a VDN extension may also be assigned.

Allowable entries for each dial code are:

- digits 0 through 9
- [*] (star) used for a feature activation code
- [#] (pound) used for a feature deactivation code
- special characters (count as two characters each):
 - ~p (pause)
 - ~w (wait)
 - ~m (mark)
 - ~s (suppress)

See Abbreviated Dialing in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a more detailed description of special characters.

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ABBREVIATED DIALING LIST

System List

Size (multiple of 5): 30 Privileged? n

DIAL CODE	
11: _____	26: _____
12: _____	27: _____
13: _____	28: _____
14: _____	29: _____
15: _____	30: _____
16: _____	31: _____
17: _____	32: _____
18: _____	33: _____
19: _____	34: _____
20: _____	35: _____
21: _____	36: _____
22: _____	37: _____
23: _____	38: _____
24: _____	39: _____
25: _____	40: _____

SCREEN 6-7. Abbreviated Dialing System List Form (Page 1)—Example Only

Implementation Note:

The default value for the Size field is 5. Therefore, only DIAL CODES 11 through 15 will be displayed initially. This form becomes two pages for Size field entries of 35 through 60 and three pages for entries of 65 through 90.

To reduce repetition, Page 2 and Page 3 are not shown. For a complete set of blank forms, refer to the Blank Forms Package.

Abbreviated Dialing—7103A List

Purpose

This form is used to assign abbreviated dialing numbers to the 7103A voice terminal buttons. The entries can then be accessed by 7103A voice terminal users to place local, long-distance, and international calls; activate/deactivate features; or to access remote computer equipment. This form applies only to 7103A fixed feature voice terminals. Only one 7103A abbreviated dialing list can be implemented in the System and it applies to all 7103A fixed feature voice terminals in the System. This list is controlled by the System Manager.

Administration Commands

The following administration commands can be used to access the Abbreviated Dialing 7103A List form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	abbreviated-dialing 7103A-buttons	—
change	abbreviated-dialing 7103A-buttons	—
display	abbreviated-dialing 7103A-buttons	['print' or 'schedule']
remove	abbreviated-dialing 7103A-buttons	—

- Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for each field on the form:

(In the following, the dial code numbers 1 through 8 as shown on the form relate to the buttons on the 7103A voice terminal.)

- **DIAL CODE (For The 7103A Station Buttons)**— Enter the desired number you want to assign to each dial code (button). Any additions or changes apply to all 7103A fixed feature voice terminals.

Allowable entries for abbreviated dialing codes:

- digits 0 through 9
- [*] (star) used for a feature activation code
- [#] (pound) used for a feature deactivation code
- special characters (count as two characters each):
 - ~p (pause)
 - ~w (wait)
 - ~m (mark)
 - ~s (suppress)

See Abbreviated Dialing in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a more detailed description of special characters.

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ABBREVIATED DIALING LIST

7103A Button Assignment

DIAL CODE (FOR THE 7103A STATION BUTTONS)

1: _____	5: _____
2: _____	6: _____
3: _____	7: _____
4: _____	8: _____

SCREEN 6-8. Abbreviated Dialing 7103A List Form— Example Only

Access Endpoint

Purpose

An Access Endpoint is a non-signaling trunk that neither responds to signaling nor generates signaling. Access Endpoints eliminate the need to dedicate an entire trunk group for the access of a single trunk by providing the capability to assign an extension number to a single trunk. An Access Endpoint can be specified as the Originator or Destination endpoint of an administered connection.

Note: Access Endpoints consume the same resource that trunks use. Thus, the sum of Access Endpoints and trunks cannot exceed 400.

Refer to Administered Connection/Access Endpoint feature in Chapter 4 for additional information.

Administration Commands

The following administration commands can be used to access the Access Endpoint form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	access-endpoint	xxxx (ext. or 'next')
change	access-endpoint	xxxx (ext. or 'next')
display	access-endpoint	xxxx (ext. or 'next') ['print' or 'schedule']
duplicate	access-endpoint	xxxx (ext. or 'next')
remove	access-endpoint	xxxx (ext. or 'next')
list	access-endpoint	xxxx ['count' 1-400] ['print' or 'schedule']

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Extension**— Display-only field when the form is accessed using an administration command such as change or display. This is the extension number assigned to the non-signaling trunk and used to access the trunk. Enter a valid unassigned extension number when completing a paper form. Default is blank.
- **Port**— Enter a 6-character port number to identify the physical port associated with the extension: port network (1 through 3) default is "1" if no entry; Carrier (A through E); slot (1 through 20 for multi-carrier cabinets depending on carrier type or one through 18 for single-carrier cabinets depending on cabinet type); circuit number (01 through 04 for analog tie trunks or 01 through 24 for DS1 Interface ports).

The DS1 circuit number corresponds to the channel that will carry the data traffic. Channels 1 through 24 may be used when the DS1 signaling type is "robbed-bit" or "isdn-ext." In the case of Common Channel Signaling or ISDN-PRI, use of the channels is limited to

channel 1 through 23. A channel can be administered as an access endpoint regardless of the DS1 signaling type.

- **Communication Type**— For an analog tie trunk access endpoint, enter “voice-grade-data.” For a DS1 access endpoint, enter either “56k-data,” “64k-data,” or “voice-grade-data.” Default is “voice-grade-data.”
- **Name**— Enter up to 10 alphanumeric characters to identify the endpoint. Default is blank.
- **COR**— Enter the appropriate class of restriction (COR) number in the range from 0 through 63. The COR is administered (see COR form instructions) so that only an administered connection endpoint can be connected to another AC endpoint. Default is “1.”
- **ITC (Information Transfer Capability) (G3i)**— Enter “restricted” or “unrestricted.” This field is only displayed if the Comm Type field is administered as “56K-data” or “64K-data.” The field will not be displayed if the comm type has been set to “voice-grade-data.” The default value of this field is set to “restricted.”
- **COS**— Enter the appropriate COS number in the range from 0 through 15. The COS is administered (see COS form instructions) so that the use of the Call Forwarding All Calls feature for access endpoints is prohibited. Default is “1.”

ACCESS ENDPOINT

Extension: _____	Port: _____
Communication Type: <u>64K-data</u>	Name: _____
COR : <u>1</u>	COS : <u> </u>
ITC : <u>restricted</u>	

SCREEN 6-9. Access Endpoint Form

Adjunct Controlled Agent Table

Purpose

This form is used to assign vendor-supplied outbound call management adjunct controlled agent extensions. Up to 80 extensions may be administered.

An agent whose extension is on the Adjunct Controlled Agent Table (ACAT) may log into any (vendor-supplied) outbound call management adjunct-controlled split without having to be a member of each split. At login, the System checks to ensure that:

- The agent is a valid adjunct controlled agent.
- The split is adjunct controlled.
- The 3B2 CMS is not currently moving the agent.
- The agent is not logged into another split (that is, agent may only be a member of one bx.25 adjunct controlled split at a time).

If these criteria are met and the agent is not already a member of the split as a result of a previous login, the System moves the agent to the new split. Agent moves will be blocked during a save translation.

A subsequent display of the associated Hunt Group form's split members will show the agent as a member of the split.

A display of the ACAT will show the split number that the agent is currently assigned to. An asterisk (*) beside the split number indicates that the agent is logged into the split.

Administration Commands

The following administration commands can be used to access the ACAT form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	adjunct-controlled-agent-table	—
display	adjunct-controlled-agent-table	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form instructions

Make assignments as required for the following fields on each page of the form.

- **Ext**— Enter an assigned agent extension for each agent that is to be controlled by a vendor-supplied outbound call management adjunct.
- **Split**— Display-only field. Displays the split the agent Ext (extension) is a member of. The Split field will be marked with an asterisk if the agent is logged into the split. Agent extensions initially entered on the table are automatically assigned to a default adjunct controlled split number. System defaults to first adjunct-control split administered in the System.

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ADJUNCT CONTROLLED AGENT TABLE

Agent	Ext	Split	Agent	Ext	Split	Agent	Ext	Split
1			15			29		
2			16			30		
3			17			31		
4			18			32		
5			19			33		
6			20			34		
7			21			35		
8			22			36		
9			23			37		
10			24			38		
11			25			39		
12			26			40		
13			27			41		
14			28			42		

SCREEN 6-10. Adjunct Controlled Agent Table Form (Page 1)—Example Only

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ADJUNCT CONTROLLED AGENT TABLE

Agent	Ext	Split	Agent	Ext	Split	Agent	Ext	Split
43			57			71		
44			58			72		
45			59			73		
46			60			74		
47			61			75		
4a			62			76		
49			63			77		
50			64			78		
51			65			79		
52			66			80		
53			67					
54			68					
55			69					
56			70					

SCREEN 6-11. Adjunct Controlled Agent Table Form (Page 2)—Example Only

Administered Connection

Purpose

This form is used to assign an end-to-end Administered Connection between two access endpoints or data endpoints. The Administered Connection is automatically established by the System whenever the System is restarted or the Administered Connection is due to be active. Refer to Administered Connection/Access Endpoint in Chapter 4 for additional information.

Administration Commands

The following administration commands can be used to access the Administered Connection form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	administered-connection	1-128 (or 'next')
change	administered-connection	1-128 (or 'next')
display	administered-connection	1-128 (or 'next') ['print' or 'schedule']
duplicate	administered-connection	1-128 (or 'next')
remove	administered-connection	1-128 (or 'next')
list	administered-connection	1-128 ['count' 1-128] ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on the form

- **Connection Number**— This is a display-only field when the form is accessed using an administration command such as change or display. Enter an unassigned Administered Connection number in the range from 1 through 128.
- **Enable**— Enter “y” to indicate that an attempt will be made to establish the Administered Connection when the Administered Connection is due to be active; otherwise, enter “n.” Default is “y.”
- **Originator**— Enter the assigned extension of the originating access endpoint or data endpoint. The endpoint must be local to the switch on which the Administered Connection is administered. Endpoints may be:
 - Access Endpoint
 - TN726 Data Line Circuit Pack
 - Asynchronous EIA 232C compatible equipment
 - TN754 Digital Line Circuit Pack connections, including:
 - MPDM (700A, 700D), MTDM (700B, 700C, 700E)

- 7400A or 7400B Data Module
 - 7401D Voice Terminal with 7400B Data Module
 - 7403D/7405D/7407D/7410D/7434D Voice Terminal with DTDM or 7400B Data Module
 - 7404D or 7406D Voice Terminal
 - 510D Personal Terminal
 - 515 or 615 BCT or 715 BCS Terminal
 - PC/PBX Connection.
- TN556 ISDN-BRI Line Circuit Pack connections, including:
- 7500B Data Module
 - 7505D/7506D/7507D Voice Terminal with ADM

Default is blank.

- **Destination**— Used to route the Administered Connection to a desired endpoint. Enter the address of the destination access or data endpoint. This endpoint is the terminating party of the Administered Connection and need not be local to the switch on which the Administered Connection is assigned. Valid entries are the digits 0 through 9, [*], [#], and the three special characters “~p” (pause), “~w” (wait), and “~m” (mark). The entry must be consistent with the local switch’s dial plan (that is, the first digits are assigned as an extension, feature access code, trunk access code, or DDD Number).

Note: A FAC is restricted to AAR, ARS, Abbreviated Dialing, Data Origination, Data Privacy, and SMDR Account Code Dialing.

If a local extension is entered, it must be assigned to either an access or data endpoint. Up to 36 characters may be entered. Special characters “~p,” etc., count as two. Abbreviated Dialing entries may be used in this field. Default is blank.

- **Name**— Enter a short identification of the Administered Connection. This entry is optional. Up to 15 printable alphanumeric characters may be entered. Default is blank.
- **Continuous**— Enter “y” to indicate that the Administered Connection is continuous (that is, not scheduled to be active at a certain time); otherwise, enter “n.” If “y” is entered, the seven Start Days and associated Duration fields are not displayed. If “n” is entered, these fields are displayed. Default is “y.”
- **Start Days (Sun through Sat)**— Only displayed if the Continuous field entry is “n.” Enter a “y” in each of the required days of the week fields to indicate that an attempt will be made to establish the Administered Connection; otherwise, enter “n.”

Note that these fields indicate only the days on which an attempt will be made to establish the Administered Connection and not necessarily the days on which the Administered Connection is active. A scheduled Administered Connection may be active over a number of days and, in this situation, these fields should be used only to specify the days on which the Administered Connection starts and not other days on which the Administered Connection may be active. Default is "n."

- **Start Time**— Only displayed if the Continuous field entry is "n." Enter the time of the day when an attempt should begin to establish a scheduled Administered Connection. The time is specified in two fields separated by a colon. Valid entries are in the range 00:00 through 23:59 [hours (00-23), minutes (00-59)]. Default is "00:00."
- **Duration**— Only displayed if the Continuous field entry is "n." Enter the period of time that the scheduled Administered Connection should remain active. This period is specified in two fields separated by a colon. The maximum duration is 167 hours and 59 minutes (that is, one minute less than one week). Valid entries are 000 through 167 for the hour field and 00 through 59 for the minute field. Default is "000:00."
- **Alarm Type**— Enter the type of alarm to be generated if the Administered Connection cannot be initially established, or fails and cannot be reestablished, and the number of consecutive failures equals the alarm threshold. Note that the alarm notification may be disabled for this Administered Connection by entering "none" in this field. Valid entries are "major," "minor," "warning," or "none." Default is "warning."

Note: All Administered Connection alarms and the errors that caused the alarms are recorded in the System's alarm and error log. In addition, a status lamp associated with an attendant console or voice terminal feature button (at-alarm) may be used to indicate the Administered Connection alarm.

- **Alarm Threshold**— Only displayed if an entry of other than "none" is entered in the Alarm Type field. Enter the number of times an attempt to establish or reestablish an Administered Connection must fail consecutively before an Administered Connection alarm will be generated. An alarm will be generated on the first failure if a "1" is entered in this field. Valid entries are 1 through 10. Default is five (an alarm will be generated after the fourth retry has failed, thus, with the default retry interval of two minutes, an alarm will be generated approximately eight minutes after the first failure occurred).
- **Retry Interval**— Enter the number of minutes between attempts to establish or reestablish the Administered Connection. Valid entries are 1 through 60. Default is "2."
- **Auto Restoration**— Enter "y" to indicate that an attempt is to be made to reestablish an Administered Connection that has failed; otherwise, enter "n." Auto Restoration is only available for an Administered Connection that is established over an ISDN-PRI, SDDN trunk group. A "y" entered in this field is ignored in all other situations. Default is "n."

- **Priority**— Enter a number in the range from 1 through 8 that is to be used to determine the order in which Administered Connections are to be established (one is the highest and eight the lowest priority). Default is “5.”

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ADMINISTERED CONNECTION

Connection Number: 1 Enable? y
 Originator: _____
 Destination: _____
 Name: _____

AUTHORIZED TIME OF DAY

Continuous? n
 Sun? n Mon? n Tue? n Wed? n Thu? n Fri? n Sat? n
 Start Time: 00:00
 Duration: 000:00

MISCELLANEOUS PARAMETERS

Alarm Type: warning Alarm Threshold: 5
 Retry Interval: 2 Auto Restoration? y
 Priority: 5

SCREEN 6-12. Administered Connection Form—Example Only

Implementation Note:

Sun-Sat, Start Time and Duration fields only displayed when the Continuous field entry is “n.”

Alarm Threshold field only displayed if the Alarm Type field entry is other than “none.”

Alias Station

Purpose

This form allows the administration of new voice terminal types that are not supported by system software. The Alias Station form allows the mapping of new terminal types to the supported terminal types. This mapping does not guarantee compatibility, but allows non-supported terminals to be administered and tracked by their own names.

System Administration must refer to customer voice terminal documentation for supported types and associated manuals for non-supported types to avoid type mismatches between the new terminal and the supported terminal. Note that DCP terminal types must be mapped (aliased) to DCP terminal types, hybrid types to hybrid types, and analog to analog types.

Refer to the Enhanced Terminal Administration feature in Chapter 4 for additional information.

Administration Commands

The following administration commands can be used to access the Alias Station form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	alias station	—
display	alias station	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form.

- **Alias Set Type**— Enter a non-supported voice terminal type that is to be aliased to a similar supported voice terminal type. Up to five characters (all printable characters except blank characters) are allowed. Note that a duplicate non-supported type entry is not allowed on the form (that is, SET20 and Set20 are considered as duplicates).
- **Supported Set Type**— Enter a supported voice terminal type that is to be mapped or aliased to the non-supported type entered immediately to the left in the “Alias Set Type” field. Up to five characters (all printable characters except blank characters) are allowed. Supported voice terminal types are summarized in the Voice Terminals—General information provided later in this chapter.

Page 1 of 1

ALIAS STATION

Alias Set Type	Supported Set Type
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

SCREEN 6-13. Alias Station Form—Example Only

Alphanumeric Dialing Table

This form is used to associate alpha-names to dialed digit strings. This then allows terminal users to place a data call by simply typing the alpha-name. Users need only remember far-end alpha-names instead of the actual digit strings.

The form consists of 200 paired Alpha-name/Mapped String fields (that is, six pages). Pages 1 through 5 have 34 paired fields per page. Page 6 has 30 paired fields. Entries may be made in any order on the form. However, before the form is displayed for changing or reviewing, the entries in the table are sorted alphanumerically by the alpha-name. All entries will be moved to the beginning of the table, leaving all blank entries at the end.

Administration Commands

The following administration commands can be used to access the Alphanumeric Dialing Table form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	alphanumeric-dial-table	—
display	alphanumeric-dial-table	[print]

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **Alpha-name**— Enter from 1 to 8 alphanumeric characters. The entry must start with an alphabetic character and may not have blank spaces between characters. All alpha-names in the table must be unique and cannot be referenced in their own “Mapped String.” The alpha-names can be used in any other “Mapped String” and multiple times in a “Mapped String.” Default is blank.
- **Mapped String**— Enter from 1 to 24 characters that may contain alphanumeric, readability, delimiters, and/or special characters. The entry is used to generate the final dialing string and can include Facility Access Codes. The following characters are allowed:

Numeric—Digits 0 through 9.

Alpha—A through Z, a through z (note upper-case entries are mapped to lower-case).

Readability—Character delimiters used for easy reading of the dial string. The characters are “(,” “),” “/,” “\,” and the space character.

Note: A Mapped String may not contain an Alpha-Name whose Mapped String also contains a Alpha-Name.

- **Special Characters**— are used to identify a special operation. The characters are:
 - “#” and “*”—Each treated as a numeric.
 - “^”—Treated as a readability character.
 - “+”—Suspend digit outputting until a dial tone is detected.
 - “,”—Pause 1.5 seconds. (Used only for outgoing trunk calls. If used internally, the 1.5 second pause is ignored.)
 - “%”—Digits following this character are for end-to-end signaling. Following digits to be outputted as tones regardless of type of trunk signaling, pulse, or tone.
- Delimiters can consist of both readability and special characters and are used to separate tokens of “alpha-names” or numeric sub-strings. For example, “(205) mt-1234+0000.”

[illegible]

SCREEN 6-14. Alphanumeric Dialing Form (Page 1)—Example Only

[illegible]

SCREEN 6-15. Alphanumeric Dialing Form (Page 6)—Example Only

Implementation Note:

To reduce repetition, Pages 2 through 5 are not shown.

Attendant Console

Purpose

This form is used to assign one Attendant Console in the System. Up to seven consoles maybe assigned. The form is used to administer either a Basic Attendant Console (Figure 6-1) or Enhanced Attendant Console (Figure 6-2). As far as administration is concerned, the basic console and enhanced console are treated as the same console.

Administration Commands

The following administration commands can be used to access the Attendant Console form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	attendant	1-7
change	attendant	1-7
display	attendant	1-7 ['print' or 'schedule']
remove	attendant	1-7

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments in the following fields on each page of the form:

Page 1 of the Form

- **Attendant Console x**— Enter the console number (1 through 7) when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Type**— System default is “console” (this is the only choice).
- **Extension**— Enter the extension for the individual attendant console. If an extension is not assigned, then the attendant can only be addressed as a member of the attendant group via the dial “0” access code. Refer to the Individual Attendant Access feature in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for additional information.

Note that, once administered, the individual attendant extension may also be entered in any of the following:

- Any coverage point in a call coverage path (Call Coverage Paths form)
- CAS Backup Extension (Console Parameters form)
- Hunt Group Supervisor Extension (Hunt Group form)
- LDN Night Extension

- Stations with Systemwide Message Retrieval Permission (Feature-Related System Parameters form)
 - Member of a Hunt Group (Hunt Group form)
 - Incoming Destination for a Trunk Group (Trunk Group forms)
 - Night Service Destination for a Hunt Group (Hunt Group form).
- **Name**— Enter the name of this console (up through 15 alphanumeric characters). Any entry is accepted.
- **Console Type**— Enter the intended use for this console; valid entries are “principal,” “day-only,” “night-only,” or “day/night.” There can only be one night-only or one day/night console in the System. Night Service is activated from the principal console only.
- **COS**— Enter the class of service (COS) for this attendant console (0 through 15). Default is “1.”
- **Auto Answer**— Enter “y” if the attendant console has auto answer otherwise, enter “n.” Auto Answer indicates that an incoming call will be automatically answered without any action (no button presses required) by the attendant. Default is “n.”
- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08). Each attendant console requires a port on a TN754 Digital Line circuit pack. For reliability, the attendant consoles should not be assigned to the same circuit pack. For example, if three attendant consoles are implemented, assign each console to a port on three separate TN754 Digital Line circuit packs. However, if necessary, all attendant consoles can be connected to one Digital Line circuit pack.
- **COR**— Enter the class of restriction (0 through 63) that reflects the desired restriction. Default is “1.”
- **Data Module**— Enter “y” if the console is to be connected to a data terminal via 7400B Data Module; otherwise, enter “n.” If “y” is entered, the Data Module form (Page 4) must be completed. Default is “n.”
- **Direct Trunk Group Select Button Assignments** (Trunk Access Codes) (See Screen 6-17 or 6-18)—Enter the trunk access codes (TACs) for local and remote PBXs. (There are fields for one local TAC and one remote TAC per button, labeled Local and Remote.) The local TAC refers to a trunk group or Loudspeaker Paging zone on this PBX. Remote TACs are only useful in a DCS network. The remote TAC refers to a trunk group on the remote PBX. If a remote TAC is given, then the local TAC must refer to a trunk group that connects directly to the remote PBX.
- **Hundreds Select Button Assignments**— Enter in the appropriate field (1 through 20), the hundreds group to be associated with a Hundreds Group Select button located on an optional Selector Console (Figure 6-3 and Figure 6-4). Fields 1 through 8 are used when the Selector Console is a 24A-type console (Figure 6-3) and fields 1 through 20 are used when the console is a 26A-type console (Figure 6-4). The hundreds group number entered in the field represents all but the last two digits of an extension number (for

example, the Hundreds Select Button—on the Selector Console—for extension 3822 would be “38”; the Hundreds Select Button for extension 27105 would be “271”). The last two digits of an extension number are obtained (after pressing a Hundreds Group Select button) by pressing the appropriate extension button (00 through 99) on the console.

Page 2 of the Form

- **Feature Button Assignment**— Enter the desired feature buttons from Table 6-A that you want to assign to the attendant console. The fixed buttons which cannot be changed (that is, split and forced release) are shown on the form. The hold, night-serv, and pos-busy buttons are shown in the System default locations. These buttons may be administered elsewhere on the form. The following provides descriptions of feature buttons that are unique to the attendant console. Refer to the Voice Terminal—General section (this Chapter) for a description of feature buttons as shown on Table 6-A that are not included in the following list.
 - Audible Tones On/Off
 - “cw-ringoff”—Call waiting ringer off; turns on/off the audible tone for call waiting on attendant console. (One per console maximum.)
 - “in-ringoff”—Incoming call ringer off; turns on/off the audible tone for incoming call ringer. (One per console maximum.)
 - “re-ringoff”—Timed reminder ringer off; turns on/off the audible tone for timer reminder ringer. (One per console maximum.)
 - Attendant Control of Trunk Group Access
 - “act-tr-grp”—Activate trunk group access; allows the attendant to control a trunk group. All calls going to the trunks will be routed to the attendant. (One per console maximum.)
 - “deact-tr-g”—Deactivate trunk group access; allows the attendant to release control of a trunk group. (One per console maximum.)
 - Display COR (“class-rstr”)—Display COR; used to display the COR associated with a call. (One per console maximum.)
 - Emergency Access to the Attendant (“em-acc-att”)—Emergency access to attendant; the associated status lamp is flashed when there is one or more calls on the emergency attendant queue. (One per console maximum.)
 - Trunk Group Select
 - “local-tgs”—Local trunk group select; allows the attendant to access trunk groups on the local PBX. (Combination of 12 local-tgs/remote-tgs per console maximum.)
 - “remote-tgs”—Remote trunk group select; allows the attendant to access trunk groups on a remote PBX. (Combination of 12 local-tgs/remote-tgs per console maximum.)

Up to 12 Hundreds Group Select buttons may be assigned on Page 2 of the form. This supplements those that can be administered on Page 1. (Note that only 20 Hundreds Group Select buttons maximum can be administered between the two pages of the form.)

The capability to administer Hundred Group Select buttons on Page 2 was provided in a previous release of the System. It supported adding more Hundreds Group Select buttons (when using a 301A-type attendant console and a 24A-type Selector Console) for systems with more than 800 lines that require more than eight Hundreds Group Select buttons.

If up to 12 Hundreds Group Select buttons are to be administered on Page 2, it is recommended that the night, pos busy, and hold buttons be reassigned to button locations 20, 21, and three, respectively, as shown on Screen 6-21. The Hundreds Group Select buttons should then be assigned in the rightmost three columns, as required.

In addition to the 12 Direct Trunk Group Select (DTGS) Button Assignments on Page 1 of the form, up to 12 single lamp DTGS buttons may be administered on Page 2. The status lamp associated with the feature button is used to monitor the busy/idle status of the trunk. Trunk groups administered on these buttons cannot be controlled using Attendant Control of Trunk Group Select buttons. The single lamp DTGS buttons may be administered as follows:

- **local-tgs**— Used to access trunk groups on the local switch. A subfield labeled “TAC” must be completed with the TAC of the local trunk group.
- **remote-tgs**— Used to access trunk groups on a remote PBX. Two subfields are displayed (L-TAC and R-TAC). L-TAC should be completed with the TAC of the local trunk group that connects to the remote PBX. R-TAC should be completed with the TAC for the trunk group on the remote PBX to be accessed.

Page 3 of the Form

- **Display Module Button Assignment**— Enter the desired feature or functions from Table 6-A. Display-type buttons are used to obtain display functions on the associated alphanumeric display. These buttons are noted as “[display button]” in the Feature or Function column on the table. Also, several feature buttons can be administered so that their associated status lamps can be used to provide visual indications of the associated feature or function. In some cases, the button itself is not operational. These buttons are noted as “[status lamp].” If a Call Cover Msg Rt (cov-msg-rt) button is assigned, a Leave Word Calling Delete Msg (delete-msg) button and a Next (next) button must also be assigned.

Page 4 of the Form

- Only displayed if the Data Module field on Page 1 is “y.” Complete the Data Module form as follows:
 - **Data Extension**— Enter the extension number assigned to the data module. A data extension can be a 1-to 5-digit number and must agree with the System’s Dial Plan.

- **BCC**— Display-only field. Only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Note: Refer to GRS in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls. The BCC value is used to determine compatibility when non-ISDN-PRI facilities are connected to ISDN facilities (ISDN-PRI InterWorking feature).

- **Name**— Enter the name of the user associated with the data module. The name is optional, it can be left blank.
- **COR**— Enter the desired COR number from 0 through 63. Default is "1."
- **COS**— Enter the desired COS number from 0 through 15 to designate allowed features. Refer to COS form for additional information on the allowed features. Default is "1."
- **Abbreviated Dialing List 1:**— Enter "p" for personal, "s" for system, "g" for grow, or "e" for enhanced. If "g" or "p" is entered, a group number (1 through 100), or personal list number (1 through 3), respectively, is also required.
- **Special Dialing Option**— Enter one of three dialing options that are available. This identifies the destination of all call when this data module originates calls. Valid entries are "hot-line," "default," or leave blank.
- **Hot Line Destination—Abbreviated Dialing Dial Code**— Only displayed when the SPECIAL DIALING OPTION field is "hot-line." Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook on a Data Hot Line call.
- **Default Dialing**— Abbreviated Dialing Dial Code From above list—Only displayed when the Special Dialing Option field is "default." Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook and enters a carriage return following the "DIAL" prompt. The data call originator can also perform data terminal dialing by specifying a dial string that mayor may not contain alphanumeric names.
- **Ext**— Make no entry. This is the extension number of a previously administered user who has an associated Data Extension buttons and who will share the use of the module.
- **Name**— Display-only field. Contains the name assigned to the above extension number.

Page 1 of 4

ATTENDANT CONSOLE

Type: console
 Extension: _____ Name: _____
 Console Type: _____ COS: 1 Auto Answer? n
 Port: _____ COR: 1 Data Module? n

DIRECT TRUNK GROUP SELECT BUTTON ASSIGNMENTS (Trunk Access Codes)

Local	Remote	Local	Remote
1: _____	_____	7: _____	_____
2: _____	_____	8: _____	_____
3: _____	_____	9: _____	_____
4: _____	_____	10: _____	_____
5: _____	_____	11: _____	_____
6: _____	_____	12: _____	_____

HUNDREDS SELECT BUTTON ASSIGNMENTS

1: _____	6: _____	11: _____	16: _____
2: _____	7: _____	12: _____	17: _____
3: _____	8: _____	13: _____	18: _____
4: _____	9: _____	14: _____	19: _____
5: _____	10: _____	15: _____	20: _____

SCREEN 6-16. Attendant Console Form (Page 1)—Example Only

Page 2 of 4

ATTENDANT CONSOLE

FEATURE BUTTON ASSIGNMENTS

1: <u>split</u>	13: _____
2: _____	14: _____
3: _____	15: _____
4: _____	16: _____
5: _____	17: _____
6: <u>hold *</u>	18: _____
7: _____	19: <u>forced-rel</u>
8: _____	20: _____
9: _____	21: _____
10: _____	22: _____
11: _____	23: <u>night-serv *</u>
12: _____	24: <u>pos-busy *</u>

SCREEN 6-17. Attendant Console Form (Page 2)—Example Only

Implementation Note

* Feature button administrable to other button locations (shown in system default location).

Page 3 of 4

ATTENDANT CONSOLE

DISPLAY MODULE BUTTON ASSIGNMENTS

1: <u>normal</u>	5: <u>delete-msq</u>
2: <u>inspect</u>	6: <u>call-disp</u>
3: <u>cov-msq-rt</u>	7: <u>date-time</u>
4: <u>next</u>	8: <u>timer</u>

SCREEN 6-18. Attendant Console Form (Page 3)—Example Only

Implementation Note:

Defaulted feature buttons show above. Other display feature buttons as noted on Table 6-A maybe administered here, as required.

Page 4 of 4

STATION

DATA MODULE

Data Extension: _____
Name: _____

BCC: 2
COR: 1

ITC: restricted
COS: 1

ABBREVIATED DIALING

Listl: _____
SPECIAL DIALING OPTION: _____
HOT LINE DESTINATION
DEFAULT DIALING
Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (station with a data extension button for this data module)

Ext	Name
1:	

SCREENS 6-19. Attendant Console Data Module Form (Page 4)—Example Only**Implementation Note**

This page is only displayed if the Data Module field on Page 1 is "y."

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is "hot-line."

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is "default."

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line" or "default."

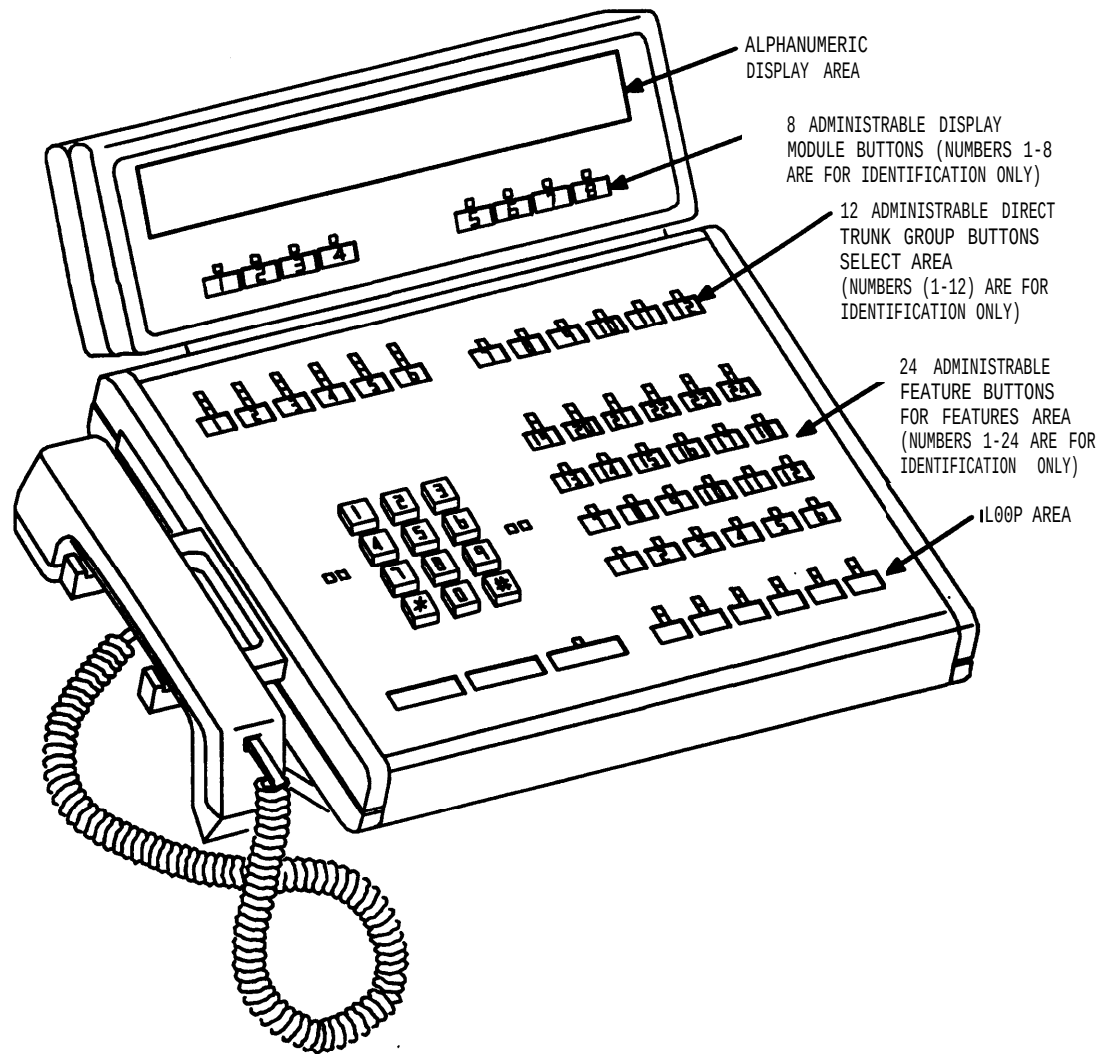


FIGURE 6-1. Basic Attendant Console (301A) Button Assignments

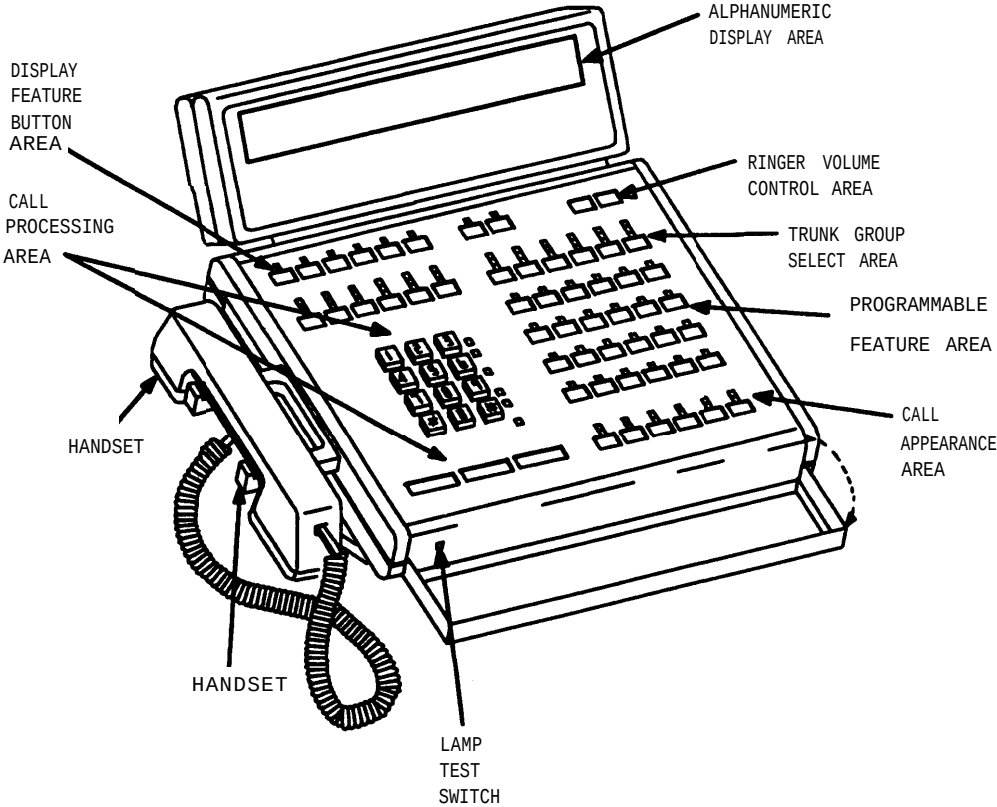
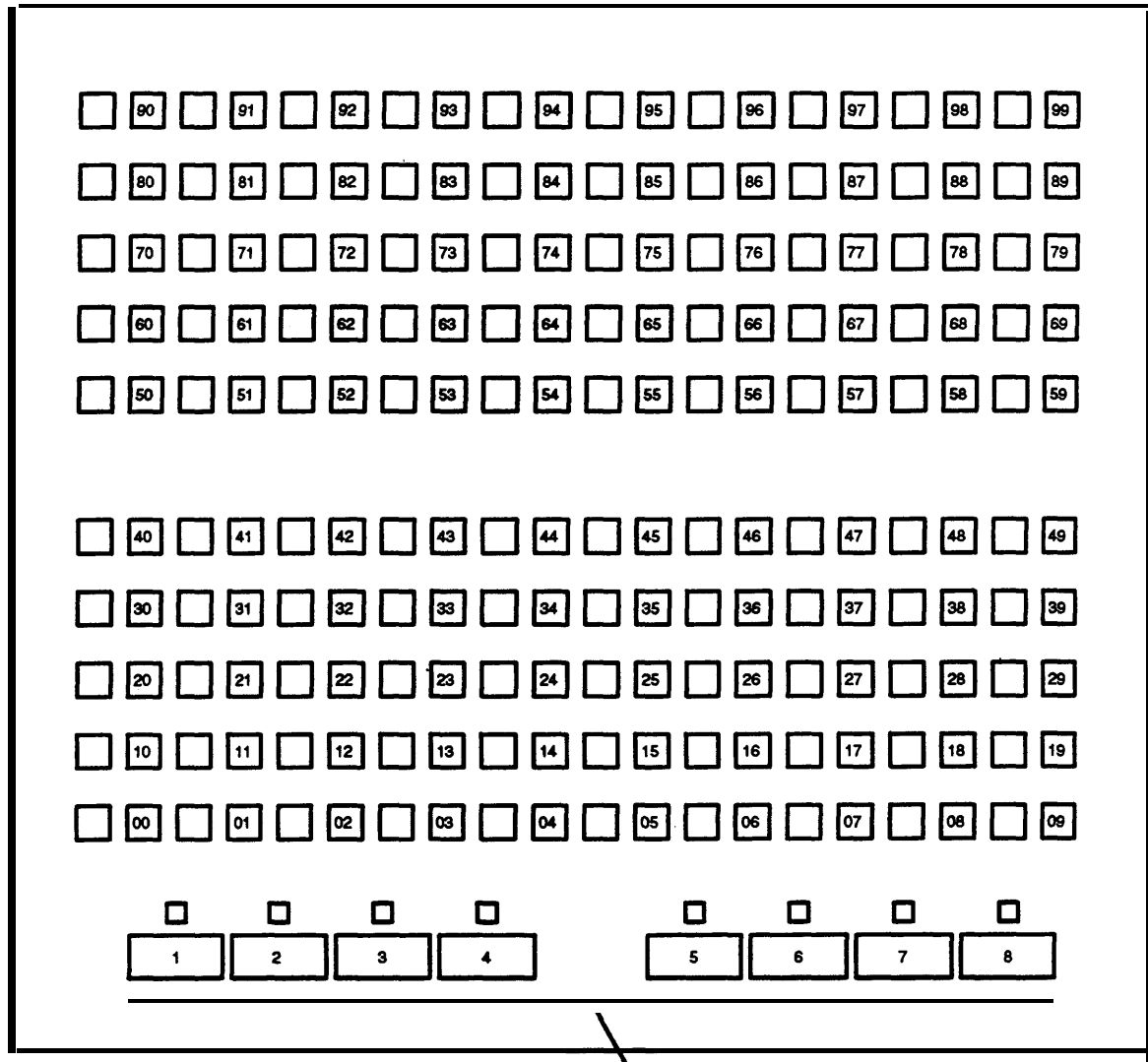


FIGURE 6-2. Enhanced Attendant Console (302A) Button Assignments



EIGHT ADMINISTRABLE
HUNDREDS GROUP
SELECT BUTTONS
(NUMBERS 1-8 ARE
FOR IDENTIFICATION
ONLY)

FIGURE 6-3. Selector Console (24A) Administrable Hundreds Group Select Buttons

☐	90	☐	91	☐	92	☐	93	☐	94	☐	95	☐	96	☐	97	☐	98	☐	99
☐	80	☐	81	☐	82	☐	83	☐	84	☐	85	☐	86	☐	87	☐	88	☐	89
☐	70	☐	71	☐	72	☐	73	☐	74	☐	75	☐	76	☐	77	☐	78	☐	79
☐	60	☐	61	☐	62	☐	63	☐	64	☐	65	☐	66	☐	67	☐	68	☐	69
☐	50	☐	51	☐	52	☐	53	☐	54	☐	55	☐	56	☐	57	☐	58	☐	59
☐	40	☐	41	☐	42	☐	43	☐	44	☐	45	☐	46	☐	47	☐	48	☐	49
☐	30	☐	31	☐	32	☐	33	☐	34	☐	35	☐	36	☐	37	☐	38	☐	39
☐	20	☐	21	☐	22	☐	23	☐	24	☐	25	☐	26	☐	27	☐	28	☐	29
☐	10	☐	11	☐	12	☐	13	☐	14	☐	15	☐	16	☐	17	☐	18	☐	19
☐	00	☐	01	☐	02	☐	03	☐	04	☐	05	☐	06	☐	07	☐	08	☐	09
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	1	☐	2	☐	3	☐	4	☐	5	☐	6	☐	7	☐	8	☐	9	☐	10
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	11	☐	12	☐	13	☐	14	☐	15	☐	16	☐	17	☐	18	☐	19	☐	20

TWENTY ADMINISTRABLE
HUNDREDS GROUP
SELECT BUTTONS
(NUMBERS 1-20 ARE
FOR IDENTIFICATION
ONLY)

FIGURE 6-4 Enhanced Selector Console (26A) Administrable Hundreds Group Select Buttons

TABLE 6-A. Attendant Console Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Abbreviated Dialing (AD)	AD	abrv-dial (List: __ DC: __)	1 per List/DC	1
Administered Connection [status lamp]	AC Alarm	at-alarm	1	
Automatic Call Distribution (ACD)	After Call Work	after-call (Grp. No. _)	N	2
	Assist	assist (Grp. No: _)	1 per split group	2
	Auto In	auto-in (Grp. No. _)	1 per split group	2
	Auxiliary Work	aux-work (Grp. No. _)	1 per split group	2
	Manual-In	manual-in (Grp. No. _)	1 per split group	2
	Release	release	1	
	Work Code	work-code	1	
	Stroke (0-9)	stroke-cnt (Code: _)	1	10
Attendant Console (Calls Waiting)	CW Aud Off	cw-ringoff	1	
Attendant Control of Trunk Group Access (Activate)	Cent Act	act-tr-grp	1	

* N = any number of buttons on the voice terminal can be assigned to this feature. Feature button descriptions are provided in the “Voice Terminals—General” section of this chapter.

† See Notes at end of table.

TABLE 6-A (continued).
Attendant Console Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Attendant Control of Trunk Group Access (Deactivate)	Cont Deact	deact-tr-g	1	
Attendant Direct Trunk Group Select	Local TG Remote TG	local-tgs remote-tgs	12	9
Attendant Display [display buttons]	Date/Time	date-time	1	
	Inspect Mode	inspect	1	
	Normal Mode	normal	1	
	Stored Number	stored-num	1	
	Timer	timer	1	
Attendant Hundreds Group Select	Group Select _	hundrd-sel (Grp: _)	20 per console	11
Automatic Circuit Assurance	ACA	aca-call	1 per System	
Automatic Wakeup (Hospitality)	Auto Wakeup	auto-wkup	1	
Busy Verification	Busy Verify	verify	1	
Call Coverage	Cover Cback	cov-cback	1	
	Consult	consult	1	
	Go To Cover	goto-cover	1	
Call Coverage [display button]	Cover Msg Rt	Cov-msg-rt	1	
Call Prompting [display button]	Caller Info	callr-info	1	
Centralized Attendant Service	CAS-Backup	cas-backup	1	

* Feature button descriptions are provided in the “Voice Terminals—General” section of this chapter.

† See Notes at end of table.

TABLE 6-A (continued).
Attendant Console Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Check In/Out (Hospitality) [display buttons]	Check In	check-in	1	
	Check Out	check-out	1	
Class of Restriction [display button]	COR	class-rstr	1	
Demand Print	Print Msgs	print-msgs	1	
Do Not Disturb (Hospitality)	Do Not Disturb	dn-dst	1	
Do Not Disturb (Hospitality) [display buttons]	Do Not Disturb Ext	ext-dn-dst	1	
	Do Not Disturb Grp	grp-dn-dst	1	
Emergency Access To the Attendant	Emerg. Access To Atndt	em-acc-att	1	
Facility Busy Indication [status lamp]	Busy (trunk or extension)	busy-ind (TAC/Ext: —	1 per TAC/Ext.	8
Facility Test Calls [status lamp]	FTC Alarm	trk-ac-alm	1	
Hardware Failure [status lamps]	Major Hdwe Failure	major-alm	10 per System	
	Auto Wakeup	pr-awu-alm	1	
	DS1 (facility)	ds1-alarm	10 per system	
	PMS Failure	pros-alarm	1	
	PMS Ptr Alm	pr-pms-alm	1	
	SMDR 1 Failure	smdr1-alm	1	
	SMDR 2 Failure	smdr2-alm	1	
	Sys Ptr Alm	pr-sys-alm	1	

* Feature button descriptions are provided in the “Voice Terminals—General” section of this chapter.

† See Notes at end of table.

TABLE 6-A (continued.)
Attendant Console Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Integrated Directory [display button]	Integrtd Directory	directory	1	
Incoming Call Identification	Coverage (Group number, type, name, or ext.#)	in-call-id	N	
Leave Word Calling	Cancel LWC	lwc-cancel	1	
	LWC	lwo-store	1	
Leave Word Calling [display buttons]	Delete	delete-msg	1	
	Msg			
	Next	next	1	
	Call Display	call-disp	1	
Leave Word Calling (Remote Message Waiting) [status lamp]	Msg (name or extension #)	aut-msg-wt (Ext: __)	N	8
Link Failure	Link Failure (Link No. __)	link-alarm (Link No. __)	1 per Link #	3
Night Service (ACD)	Hunt Group	hunt-ns (Grp. No. __)	1 per hunt group	4
	Trunk Grp.	trunk-ns (Grp. No. __)	1 per trunk group	5
PMS Interface [display buttons]	Message Waiting Act.	mwn-act	1 per system	
	Message Waiting Deact.	mwn-deact	1 per System	
Priority Calling	Prior Call	priority	N	

* N = any number of buttons on the voice terminal can be assigned to this feature. Feature button descriptions are provided in the "Voice Terminals—General" section of this chapter.

† See Notes at end of table.

TABLE 6-A (continued).
Attendant Console Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Queue Status Indications (ACD) [display buttons]	AQC	atd-qcalls (Grp:_)	1	6
	AQT	atd-qtime (Grp:_)		6
Queue Status Indications (ACD) [status lamps]	NQC	q-calls (Ext:_)	1	7
	OQT	q-time (Ext:_)	1 per hunt group	7
Ringing	In Aud Off	in-ringoff	1	
System Reset Alert	System Reset Alert [status lamp]	rs-alert	1	
Time of Day Routing [display buttons]	Immediate Override	man-ovrid	1	
	Clocked Override	clk-overid	1	
Timed Reminder	RC Aud Off	re-ringoff	1	
Trunk Identification [display button]	Trunk-ID	trk-id	1	
Trunk Group Name [display button]	Trunk-Name	trunk-name	1	

* N = any number of buttons on the voice terminal can be assigned to this feature. Feature button descriptions are provided in the “Voice Terminals—General” section of this chapter.

† See Notes below.

Notes:

- List: List number 1 to 3 where the destination number is stored.
DC: Dial codes of destination number.
- Grp: The split group number for ACD (1 through 32).

Notes From Previous Table (continued).

Notes:

3. Link: A link number—1 to 8 for multi-carrier cabinets, 1 to 4 for single-carrier cabinets).
4. Grp: A hunt group number (1 through 32).
5. Grp: A trunk group number (1 through 99).
6. Grp: Group number of the hunt group.
7. Ext: Extension number of the hunt group (may not be a VDN extension).
8. Ext: May be a VDN extension.
9. TAC: local-tgs—TAC of local TG
remote-tgs—(L-TAC) TAC of TG to remote PBX
remote-tgs—(R-TAC) TAC of TG on remote PBX

Note that the combination of local-tgs/remote-tgs per console must not exceed 12 (maximum). Label associated button appropriately so as to easily identify the trunk group.
10. Code: Enter a stroke code (0 through 9).
11. Grp: Enter a hundreds group number (1 through 20).

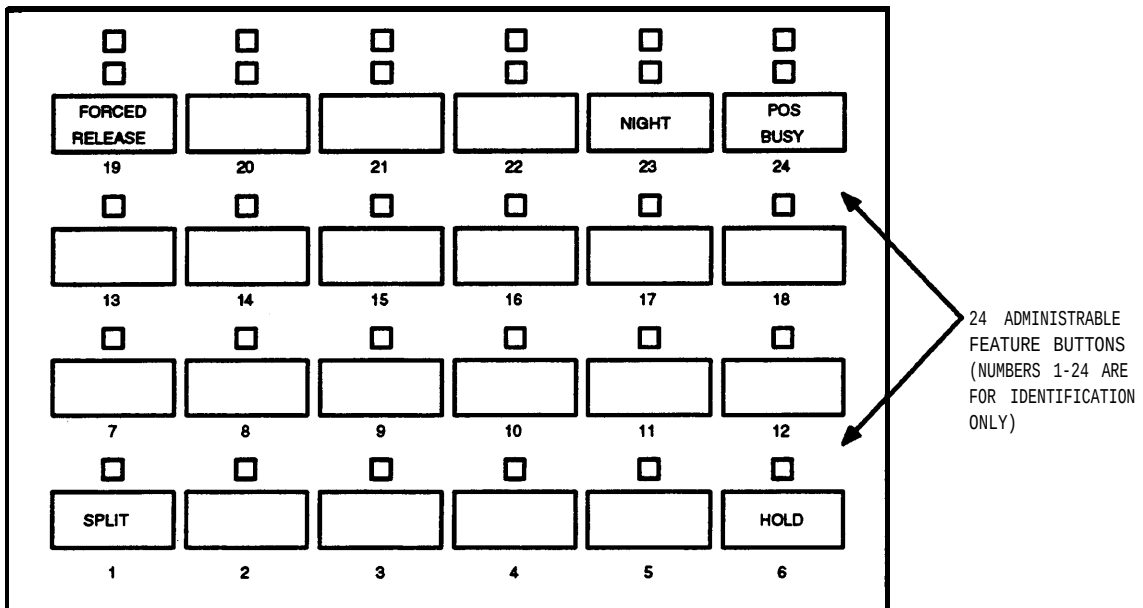


FIGURE 6-5. Attendant Console 24 Administrable Feature Button Number Assignments

Authorization Codes

Purpose

This form is used to assign authorization codes and associate them with CORs. On an internal originating call, the COR assigned the facility (for example, station) being used to originate the call and its PGN (when assigned) is used to select a routing pattern. With this, the calling party can dial a 4- to 7-digit authorization code to override the FRL assigned the COR (may be associated with voice/data terminals, incoming trunk groups, remote access trunk groups, or attendant consoles). This allows users within each PGN to have access to all seven FRLs (when assigned) and still remain partitioned. On an incoming remote access call, dialing an authorization code as part of the call dialing sequence selects the COR and the associated PGN to be used in processing the call. Up to 96 different authorization codes can be assigned on one form and 5000 codes can be assigned in the the System. Note that the use of authorization codes when accessing a VDN extension will be denied.

Administration Commands

The following administration commands can be used to access the Authorization Codes form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	authorization-code	auth (4-7 digit number)
display	authorization-code	auth (4-7 digit number)

Form Instructions

Make assignments as required for the following fields on each page of the form:

- **Number of Codes Administered**— This is a display-only field and contains the sum of the number of Authorization Codes that has been administered using the Authorization Codes form.
- **AC**— Enter the 4- to 7-digit authorization code the user must dial. The number of digits entered must agree with the number assigned to the Authorization Code Length field on the Feature-Related System Parameters form.
- **COR**— Enter the desired COR number from 0 through 63.

Call Coverage Answer Group

Purpose

This form is used to establish Call Coverage Answer Groups.

An answer group is a group of up to eight members who act as a coverage point for another user. For example, if several secretaries are responsible for answering a department's redirected calls, all the secretaries could be assigned to an answer group. The answer group is assigned a group number, and that group number appears in the department's coverage path. All terminals in an answer group ring (alert) simultaneously. Any member of the group can answer the call.

Each coverage answer group is identified by a number from 1 through 200. The members of the group are identified by their extension number. Any installed voice terminal (but not attendants) can be assigned to a coverage answer group.

Administration Commands

The following administration commands can be used to access the Coverage Answer Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	coverage answer-group	1-200 (or 'next')
change	coverage answer-group	1-200
display	coverage answer-group	1-200 ['print' or 'schedule']
list	coverage answer-group	['print' or 'schedule']
remove	coverage answer-group	1-200

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Group Number**— Enter a number from 1 through 200 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Name**— Enter the group name you want to use to identify this group. Up to 15 characters can be used, for example, typing pool, mom 12, secy, etc. Default is "COVERAGE GROUP."

Performance Tip: Enter the extension numbers that are group members. This then allows a list coverage answer group command to be used to list the voice terminals that will be alerted. The list command can be used in conjunction with the list station, list coverage path, and list hunt group commands to determine stations involved in call coverage. This makes it possible to follow call coverage for any extension, allowing the administrator to easily track call coverage paths.

- **Ext**— Enter the extension number (may not be a VDN extension) for each member of this coverage answer group.
- **Name**— Display-only field. The name is assigned when the member's voice terminal is administered.

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COVERAGE ANSWER GROUP

Group Number: _____

Group Name: OUTSIDE GROUP

GROUP MEMBER ASSIGNMENTS

Ext	Name	Ext	Name
1: _____		5: _____	
2: _____		6: _____	
3: _____		7: _____	
4: _____		8: _____	

SCREEN 6-21. Coverage Answer Group Form—Example Only

Call Coverage Paths

Purpose

This form is used to implement Call Coverage Paths. The form includes the don't answer time interval (number of rings), the call coverage criteria, and the points in the coverage path used to redirect calls.

Call coverage provides internal System users with automatic redirection of calls to answering positions. Both internal and outside calls may be redirected to coverage. Up to 600 coverage paths can be implemented in the System.

Reproduce a blank form for each coverage path to be implemented.

Administration Commands

The following administration commands can be used to access the Call Coverage Paths form. In some cases, just the most commonly used commands are Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Action	Object	Qualifier*	
Without Hospitality	add	coverage path	1-600 (or 'next')
Parameter Reduction	change	coverage path	1-600
Feature	display	coverage path	1-600 ['print' or 'schedule']
	list	coverage path	['print' or 'schedule']
	remove	coverage path	1-600
With Hospitality	add	coverage path	1-5 (or 'next')
Parameter Reduction	change	coverage path	1-5
Feature	display	coverage path	1-5 ['print' or 'schedule']
	list	coverage path	['print' or 'schedule']
	remove	coverage path	1-5

- * Brackets [] indicate the qualifier is optional,
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Coverage Path Number**— Enter a number from 1 through 600 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change. Note that if the Hospitality Parameters Reduction option is enabled on the System-Parameters Customer-Options form, only five (maximum) coverage paths can be assigned in the System.
- **Next Path Number**— Enter the number of the coverage path (1 through 600) to which a call will be redirected in case of coverage failure (the path's coverage criteria does not match the call status) at the current path. If the next path's coverage criteria matches the call status, that path is used to redirect the call and no other path is searched.

- **Linkage**— This is a display-only field that shows up to two additional coverage paths, when assigned, that the Next Path Number field entry is linked to. Figure 6-6 provides a typical linkage example. Three Coverage Paths (1, 2, 3) are shown. Calls not answered in path 1 are directed to path 2, and if not answered there are directed to path 3. Coverage Path screen forms are shown for each path. Each path is linked to the next path via the Next Path Number field entry on the associated screen forms as shown. For example, on the first screen, Coverage Path Number 1 is linked to Coverage Path 2 by the “2” entered in the Next Path Number field on the form. The display coverage path 1 (screen four in the series) then shows (after all paths have been added) Coverage Path 1 with its “Next Path Number” (2) and Coverage Path 2 linkage to Coverage Path 3.

Coverage Criteria: The conditions that, when met, cause the call to redirect to coverage. Figure 6-6 shows three examples of varied coverage criteria. The criteria that may be assigned are:

- Active— means that at least one call appearance is busy.
 - Busy—means that only one call appearance is idle.
 - Don’t Answer—means that the ringing has exceeded the preset number.
 - All—means users with this path assigned will never answer their own calls; instead, all calls go immediately to coverage.
 - SAC/Go to Cover— allows users to activate Send All Calls and to temporarily direct all incoming calls to coverage regardless of the assigned Call Coverage redirection criteria. This feature also allows covering users to temporarily remove their voice terminals from the coverage path.
- **Active, Busy, Don’t Answer, All and SAC/Go to Cover**— Enter a “y” to activate this criteria; otherwise, enter “n.” This specifies the condition that, when met, causes a call to redirect to coverage.
 - **Number of Rings**— Enter the number of rings from 1 through 99. Three rings is the recommended timing. This is the number of rings a user’s voice terminal will ring before the System sees a “no answer” condition and sends the call to the first coverage point. Default is “3.”

Coverage Points: Allows you to define the Call Coverage Paths. Coverage points must be assigned sequentially beginning with Point 1 (do not leave gaps). Note that a Call Vector or VDN cannot be translated as a coverage point. Each coverage path can have up to three alternate answering points, any of which can be:

- a Voice Terminal or Individual Attendant (an extension number of a user who will be responsible for answering another user’s redirected calls)
- recorded Announcement
- AUDIX
- a Hunt Group Number (1 through 32)
- a Coverage Answer Group Number (1 through 200)
- The Attendant Group (0)

When entering data for the three coverage points, use the following notations:

- Use the letter “h” to indicate hunt, followed by a hunt group number (1 through 32). For example, you would enter “h32” if you want a coverage point to be routed to hunt group number 32.
- Use the letter “c” to indicate coverage answer group followed by the coverage group number (1 through 200). For example, you would enter “c100” if you wanted a coverage point to be routed to call coverage answer group 100.
- Use a 0 (zero) if you want a coverage point to be an attendant.
- Use the extension number assigned to a voice terminal, announcement, and AUDIX.
- **Point 1:, Point 2:, Point 3:—** Enter one of the following: an extension number for the voice terminal, AUDIX, announcement, h1-h32 (hunt), c1-c200 (coverage), or zero (0) for attendant. If a DCS AUDIX is used and this is a remote switch served by the AUDIX on a host switch, enter an associated AUDIX hunt group number (h1-h32). A unique Hunt Group form must be administered with the AUDIX extension number in the Group Extension field. If 0 is entered and the System has CAS, the call will go to the CAS attendant.

If calls redirect to Message Center (a special Uniform Call Distribution hunt group), AUDIX, or to the attendant, do not list any additional coverage points. These calls will normally queue and never redirect to another coverage point.

Calls to any hunt group will queue if possible. Calls redirect from a hunt group only if all hunt group members are busy and either the queue is full or there is no queue:

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COVERAGE PATH

Coverage Path Number: _
 Next Path Number: _ Linkage: _ _

COVERAGE CRITERIA

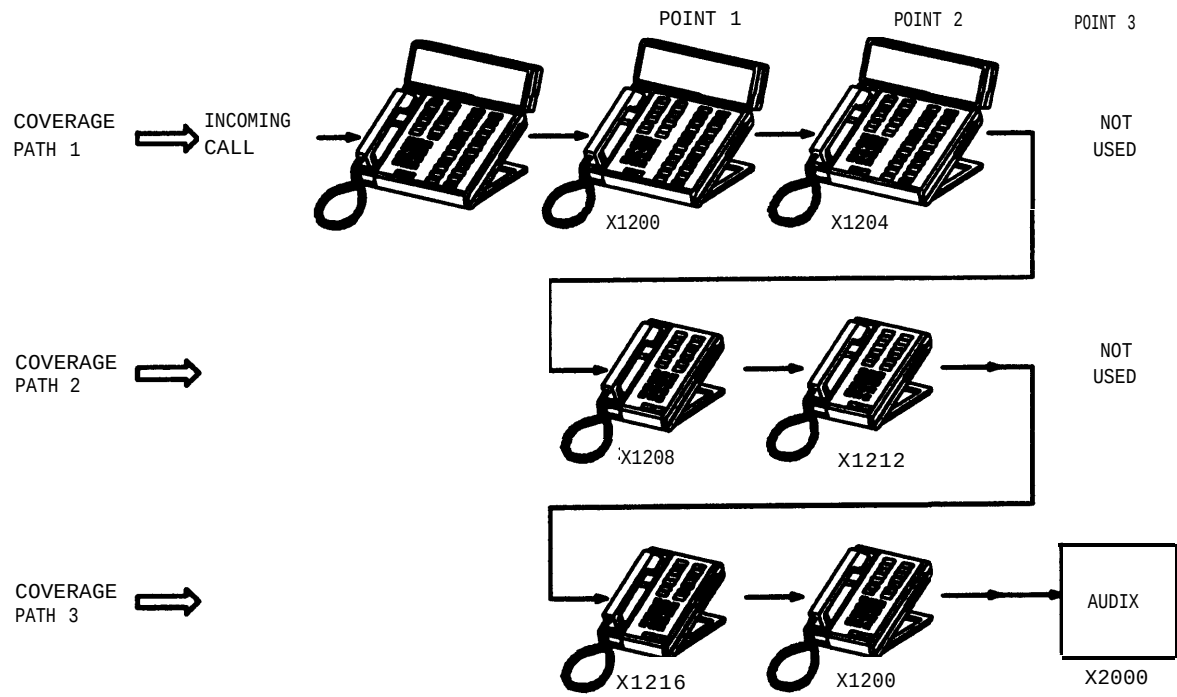
Station/Group	Status	Inside Call	Outside Call
Active?		<u>N</u>	<u>N</u>
Busy?		<u>Y</u>	<u>Y</u>
Don' t Answer?		<u>Y</u>	<u>Y</u>
All?		<u>N</u>	<u>N</u>
SAC/Go to Cover?		<u>Y</u>	<u>Y</u>

Number of Rings: 3

COVERAGE POINTS

Point 1: ____ Point 3: ____
 Point 2: ____

SCREEN 6-22. Coverage Path Form—Example Only



ADD COVERAGE
PATH 1 FORM

Page 1 of 1

COVERAGE PATH

Coverage Path Number: 1

Next Path Number: Linkage

COVERAGE CRITERIA

Station/Group	Status	Inside Call	Outside Cdl
Active?	n	n	
Busy?	y	y	
Don't Answer?	y	y	Number of Rings 3
All?	n	n	
SAC/GO to Cover?	y	y	

COVERAGE POINTS

Point 1: 120

Point 2: 1204

Point 3:

FIGURE 6-6. Example of Call Coverage Paths and Associated Linkage

Page 1 of 1

COVERAGE PATH

Coverage Path Number:_ 2

Next Path Number:_ Linkage:_ _

COVERAGE CRITERIA

Station/Group Status	Inside Call	Outside Call	
Active?	☐	☐	
Busy?	☒	☒	
Don't Answer?	☒	☒	Number of Rings: 3
All?	☐	☐	
SAC/Go to Cover?	☒	☒	

COVERAGE POINTS

Point 1: _	1208	Point 3: _
Point 2: _	1212	

ADD COVERAGE
PATH 2 FORM

Page 1 of 1

COVERAGE PATH

Coverage Path Number:_ 3

Next Path Number:_ Linkage:_ _

COVERAGE CRITERIA

Station/Group Statue	Inside cdl	outside Call	
Active?	☐	☐	
Busy?	☒	☒	
Don't Answer?	☒	☒	Number of_Rings: 3
All?	☐	☐	
SAC/Go to cover?	☒	☒	

COVERAGE POINTS

Point 1: _	1216	Point 3: <u>2000</u>
Point 2: _	1220	

ADD COVERAGE
PATH 3 FORM

FORM OBTAINED USING
display_coverage_path1
COMMAND. SHOWS LINK FROM
CALL COVERAGE PATH 2 TO 3.

Page 1 of 1

COVERAGE PATH

Coverage Path Number _ 1

Next Path Number:_ Linkage:_ _ 3

COVERAGE CRITERIA

Station/Group Status	Inside Call	Outside Call	
Active?	☐	☐	
Busy?	☒	☒	
Don't Answer?	☒	☒	Number of Rings: 3
All?	☐	☐	
SAX/Go to Cover?	☒	☒	

COVERAGE POINTS

Point 1: _	1200	Point 3: _
Point 2: _	1204	

FIGURE 6-6 (continued). Example of Call Coverage Paths and Associated Linkage

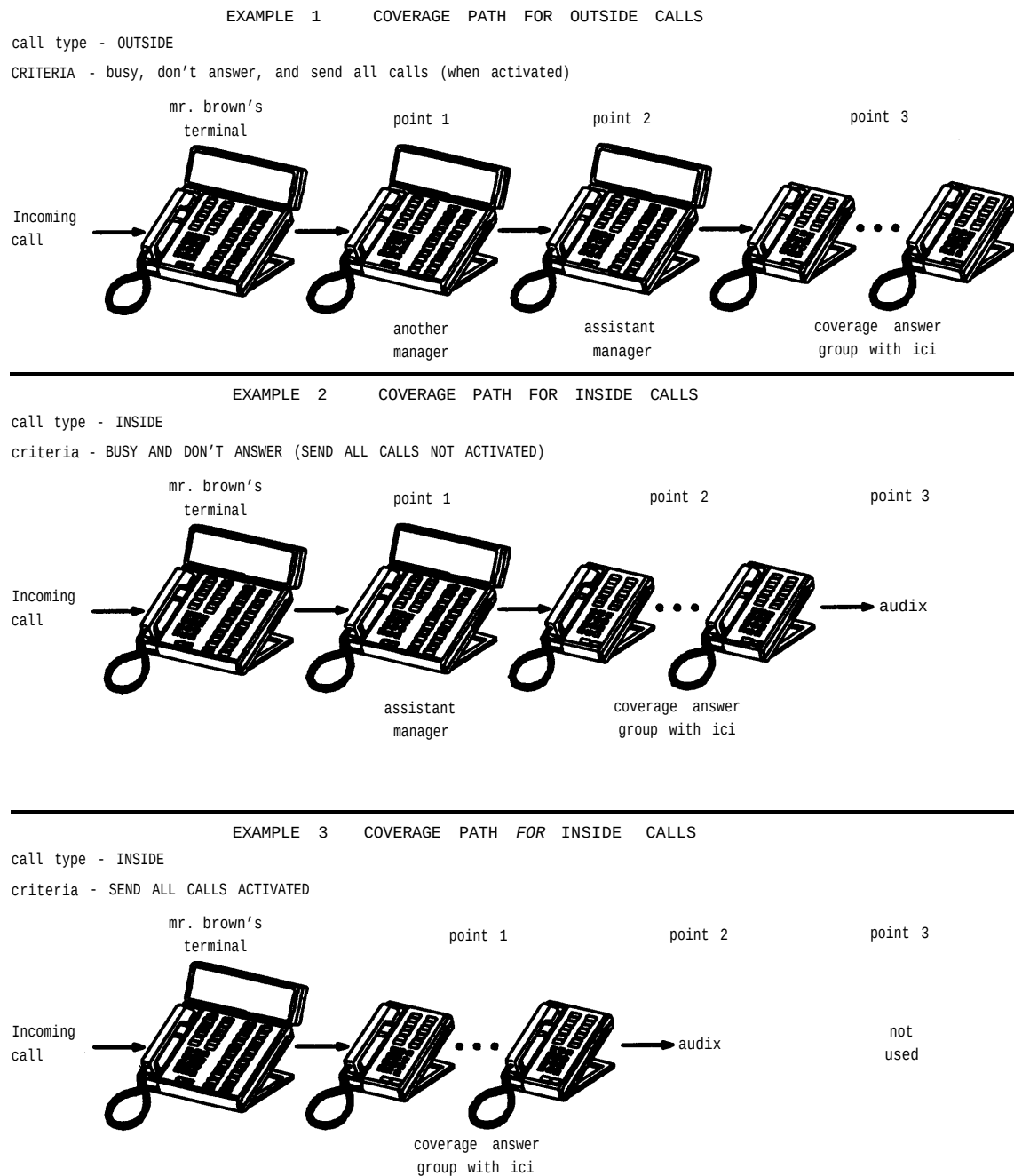


FIGURE 6-7. Typical Call Coverage Path Assignments

Call Vector

Purpose

The Call Vector form is used to program a series of commands that specify how to handle calls directed to a VDN.

For additional information on Call Vectors refer to Call Vectoring in Chapter 4.

Administration Commands

The following administration commands can be used to access the Call Vector form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviations when entering a command.

Action	Object	Qualifier*
change †	vector	[1-256]
display	vector	[1-256] ['print' or 'schedule']
list	vector	[1-256] ['count' 1-256] ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

† Do not change a call vector while it is processing a call. It is recommended to add a new vector and then change the form to point to the new vector.

Form Instructions

Make assignments as required for the following fields on the form:

- **Number**— is play-only field when the form is accessed using a change or display administration command. Enter a vector number in the range from 1 through 256 when completing a paper form.
- **Name**— Enter up to 15 alphanumeric characters to represent the vector name. This is an optional field. Default is blank.
- **ASAI Routing**— Display-only field. Indicates whether or not the ASAI Routing option is enabled on the System-Parameters Customer-Options form. Valid values are "y" (yes) or "n" (no).
- **Basic**— Display-only field. Indicates whether or not the "Vectoring (Basic)" option is enabled on the System-Parameters Customer-Options form. Valid values are "y" (yes) or "n" (no).
- **Prompting**— Display-only field. Indicates whether or not the "Vectoring (Prompting)" option is enabled on the System-Parameters Customer-Options form. Valid values are "y" (yes) or "n" (no).

- The Basic field must be “y” before “busy,” “check,” “disconnect,” “queue,” or “wait” can be entered. The Prompting field must be “y” before “collect” can be entered. “Adjunct” can only be entered if ASAI Routing and Basic are “y.”

Table 6-B provides a summary of the Call Vector commands that can be entered in the Command field. Up to 15 commands may be entered on the form. The vector command line is shown in each of the following descriptions. The bold entry indicates the required data for the particular vector command and underlined entries indicate variable fields on the command line. Branching to other vectors from a vector is permitted but the system will stop all vector processing after 1000 vector steps have been processed.

SCREEN 6-23. Call Vector Form—Example Only

TABLE 6-B. Call Vector Commands

Command	Conditions*	Description†
adjunct	routing link extension _____. Form Fields "ASAI Routing" and "Basic" must be "y."	Enter the ASAI link extension (must be a valid ISDN-BRI link extension) through which the switch will send a routing request to the associated adjunct. This command is only available when the Inbound Call Management feature is active.
announcement	extension _____. Form Fields: "Basic" or "Prompting" must be "y."	Enter a valid announcement extension to be given callers. The announcement is treated as a forced announcement. If the announcements queue is currently full, the call retries the announcement step indefinitely before processing any new vector steps. If the requested announcement is not available, the current step will be skipped and vector processing will continue at the next vector step.
busy	Form Fields "Basic" must be "y."	Causes termination of vector processing and gives the caller busy tone. If the call is a CO trunk call and answer supervision (via announcement command or wait command with music) has not been sent, the CO will ignore the busy and continue giving the caller CO ringback. Busy, if successfully applied will timeout and the call will drop after 45 seconds.
check backup split _ (split 1-99, default is blank)	priority _ if unconditionally . priority: l (low), m (medium), h (high), t (top). Default is "m." Form Fields: "Basic" must be "y."	Enter the priority for queuing a call unconditionally (will always attempt to queue) to a second split or hunt group queue. (Split or hunt group must be vector controlled.)
check backup split _ (split 1-99, default is blank)	priority _ if available agents >_. priority: l (low), m (medium), h (high), t (top). Default is "m." available agents >: 0-199, default is 0. Form Fields: "Basic" must be "y."	Enter the priority and the number of available agents requirement before queuing a call to the backup split.

* Legend: < (less than), > (greater than). Variable field entries shown below command line.

† Data that must be entered as part of the command line is shown in bold. Variable fields that must be completed are shown underlined. Detailed descriptions of the Call Vector and Call Prompting commands is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201.

TABLE 6-B (continued).
Call Vector Commands

Command	Conditions *	Description †
check backup split _ (split 1-99, default is blank)	priority _ if staffed agents > _. priority: l (low), m (medium), h (high), t (top). Default is "m." staffed agents >: 0-199, default is 0. Form Fields: "Basic" must be "y."	Enter the priority and the number of staffed (logged in) agents requirement before queuing a call to the backup split.
check backup split _ (split 1-99, default is blank)	priority _ if calls queued < _. priority: l (low), m (medium), h (high), t (top). Default is "m." Calls queued <: 1-199, default is 1. Form Fields: "Basic" must be "y."	Enter the priority and the number of calls queued requirement before queuing a call to the backup split.
check backup split _ (split 1-99, default is blank)	priority _ if oldest-call-waiting < _. priority: l (low), m (medium), h (high), t (top). Default is "m." oldest-call-waiting <: 2-998, default is 2. Form Fields: "Basic" must be "y."	Enter the priority and the oldest-call-waiting requirement before queuing a call to the backup split. The call will queue if the oldest call has been waiting less than the specified number of seconds.
collect _ digits collect: (1 to 16, default is 1)	after announcement extension _____. extension: "none" or valid announcement extension. Form Fields: "Prompting" must be "y."	Enter the number of digits to collect from a touch-tone phone and the extension number associated with an optional announcement to be given the calling party before receiving the digits; otherwise, enter "none."
disconnect	after announcement extension _____. extension: "none" or valid announcement extension. Form Fields: "Basic" must be "y."	Enter a valid announcement extension if an announcement is to be given a caller before disconnect occurs. Disconnect ends treatment of a call and removes the call from the switch.
goto step _ (step: 1-15) -or- goto vector _ (vector: 1-256)	unconditionally Form Fields: "Basic" or "Prompting" must be "y."	Enter the vector step or vector to branch to. This command always branches.

* Legend: < (less than), > (greater than). Variable field entries shown below command line.

† Data that must be entered as part of the command line is shown in bold. Variable fields that must be completed are shown underlined. Detailed descriptions of the Call Vector and Call Prompting commands is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201.

TABLE 6-B (continued).
Call Vector Commands

Command	Conditions*	Description†
goto step _ (step: 1-15) -or- goto vector _ (vector: 1-256)	if available-agents in split _ is ____. split: 1-99, default is "blank." is: < or >, 0-200, defaults are > and 1. Form Fields: "Basic" must be "y."	Enter the vector step or vector to branch to. This command executes if the available agents in the indicated split is less than (<) or greater than (>) the number specified (0-200).
goto step _ (step: 1-15) -or- goto vector _ (vector: 1-256)	if staffed-agents in split _ is ____. split: 1-99, default is blank. is < or >: 0-200, default is 1. Form Fields: "Basic" must be "y."	Enter the vector step or vector to branch to. This command executes if the staffed (logged in) agents in the indicated split is greater than (>) the number specified (0-200).
goto step _ (step: 1-15) -or- goto vector _ (vector: 1-256)	if calls-queued in split _ is ____ pri ____. split: 1-99, default is blank. is: <or>, 0-200, defaults are < and 1. pri: Priority—l (low), m (medium), h (high), t (top). Default is "m." Form Fields: "Basic" must be "y."	Enter the vector step or vector to branch to. This command executes if the calls queued in the indicated split is less than (<) or greater than (>) the number specified (0-200). Check for queued calls at the priority level specified or at higher priority levels.
goto step _ (step: 1-15) -or- goto vector _ (vector: 1-256)	if oldest-call-waiting in split _ is ____. split: 1-99, default is blank. is: <or>, 0-998 (even numbers only), defaults are > and 2. pri: Priority—l (low), m (medium), h (high), t (top). Default is "m." Form Fields: "Basic" must be "y."	Enter the vector step or vector to branch to. This command executes if the oldest-call-waiting in the indicated split has been waiting less than (<) or greater than (>) the number of seconds specified (0-998).
goto step _ (step: 1-15) -or- goto vector _ (vector: 1-256)	if digits _____. digits: 1 to 16 digits Form Fields: "Prompting" must be "y."	Enter the vector step or vector to branch to. This command executes if the digits from the Collect command match the specified digit string.

* Legend: < (less than), > (greater than). Variable field entries shown below command line.

† Data that must be entered as part of the command line is shown in bold. Variable fields that must be completed are shown underlined. Detailed descriptions of the Call Vector and Call Prompting commands is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201.

TABLE 6-B (continued).
Call Vector Commands

Command	Conditions*	Description†
goto step _ (step: 1-15) -or- goto vector _ (vector: 1-256)	if time-of-day is __:__ to __:__. is (day) (hour): (minute) to (day) (hour):(minute): day: mon, tue, wed, thr, fri, sat, sun. Default is "mon" and "fri." hour: 00 to 23 (military format). Default is "09" and "17." minute: 00 to 59 (military format). Default is "00" and "00." Form Fields: "Basic" must be "y."	Enter the vector step or vector to branch to. This command executes if the time of day criteria are met.
messaging split _ (split: 1-99, default is blank)	for extension ____. extension: "none," or valid extension. Form Fields "Basic" or "Prompting" must be "y."	Enter the split or hunt group number and extension where the caller can leave a message; otherwise, enter "none."
queue> to main split_ (split 1-99, default is blank)	priority ____. priority: l (low), m (medium), h (high), t (top). Default is "m." Form Fields: "Basic" must be "y."	Enter the split number and priority level to have a call queue at a split. A call sent with this command will either con- nect to an agent in the split or enter the split's queue.
route	to number _____ if uncon- ditionally number: 1 to 16 digits (includes * and # plus AD special characters) Form Fields: "Basic" or "Prompting" must be "y."	Enter the number to mute a call to. Abbreviated Dialing special characters ~p (pause), ~w (wait), ~m (mark), and ~s (suppress) can also be used. These characters count as two digits each when used. The destination can be; an attendant or attendant queue, a local extension, a remote extension (that is, UDP extension), an external number, or a VDN number.

* Legend: < (less than), > (greater than). Variable field entries shown below command line.

† Data that must be entered as part of the command line is shown in bold. Variable fields that must be completed are shown underlined. Detailed descriptions of the Call Vector and Call Prompting commands is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201.

TABLE 6-B (continued).
Call Vector Commands

Command	Conditions*	Description†
route	to number _____ if digit equals _ . number: 1 to 16 digits (includes * and # plus AD special characters) equals: 0 -9 Form Fields: "Prompting" must be "y."	Enter the number to route a call to if the digit entered by the calling party for the last collect digits command matches the single digit (0-9) entered following the word "equals." Note that this command can only be used for routing based on single digit comparisons.
route	to digits with coverage _ . coverage: n (no), y (yes). Default is "n." Form Fields: "Prompting" must be "y."	Enter whether call coverage should apply when routing a call based on the digits collected from the calling party using the last collect digits command.
stop	Form Fields: "Basic" or "Prompting" must be "y."	Enter stop to terminate processing of any subsequent vector steps. The following remain in effect after processing the stop command any calls that are already queued, remain queued, and any wait treatment such as silence, ring-back, or music is continued.
wait	time _ secs hearing _____ time: 0-996 hearing: silence, ringing, music. Default is "silence." Form Fields: "Basic" must be "y."	Enter the time (in seconds) before processing the next vector step and indicate the treatment to be given a caller during the wait period. A wait time of "0" seconds can be used to change the call treatment without executing a delay.

* Legend: < (less than), > (greater than). Variable field entries shown below command line.

† Data that must be entered as part of the command line is shown in bold. Variable fields that must be completed are shown underlined. Detailed descriptions of the Call Vector and Call Prompting commands is provided in the *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201.

CallVisor™ Adjunct-Switch Application Interface Link

Purpose

This form is used to administer a CallVisor Adjunct-Switch Application Interface (ASAI) Link. This assigns a port interface from the switch's TN556 ISDN-BRI circuit pack (12 ports) to an adjunct such as ICM adjunct.

Note: For more detailed information on ASAI, refer to *DEFINITY® CallVisor™ Adjunct-Switch Application Interface (ASAI) Protocol Reference*, 555-230-221 and *DEFINITY® CallVisor™ Adjunct-Switch Application Interface (ASAI) Technical Reference*, 555-230-220.

Administration Commands

The following ASAI administration commands are useful. The commands that can be used to access the station form are marked with an asterisk (*). In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
* add	station	xxxxx (extension number) or ('next')
* change	station	xxxxx (extension number)
* display	station	xxxxx (extension number)
list	hunt-group	
list	monitored-station	['start' extension] [count xxxxx] [print]
* list	station	[xxxxx] ('count' 1-1600) type ASAI ['print' or 'schedule']
* list	station	[xxxxx] ('count' 1-1600) port ['print' or 'schedule']
list	vdn	
* remove	station	xxxxx (extension number)

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Extension—** This is a display-only field when accessing this form using an administration command such as change or display. When completing a blank paper form, enter a valid extension number (1 through 5 digits) that agrees with the dial plan.

- **Type**— Enter “asai.”

Note: The BCC field disappears when “asai” is entered as the station type.

- **COR**— Make no entry. Not required for the ASAI Link. (Default is “1.”)
- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 12).
- **COS**— Make no entry. Not required for the ASAI Link. (Default is “1.”)
- **Name**— Enter the name of the adjunct associated with this interface. Up to 15 characters can be used or the field maybe left blank.
- **XID**— Enter “y” to indicate layer 2 XID testing capability; otherwise, enter “n.” When supporting the CONVERSANT® Voice Information System, set XID to “y.” Setting is dependant on specific vendor’s office and managing applications (DEC=“n”). Default is “y.”
- **Fixed TEI**— Enter “y” or “n” depending on the vendor of adjunct (DEC=“n”). Default is “n.”
- **TEI**— Displayed when Fixed TEI is “y.” This field identifies if the ASAI Link has a Fixed Terminal Identification (TEI) capability. TEI identifies a unique access point in the system. When Fixed TEI is “y,” the TEI field must be administered. Enter a 1- or 2-digit number used to identify the unique access point within the service. Valid entries are 0 through 63. For example, if the CONVERSANT Voice Information System is supported, set the TEI to “3.”
- **MIM Support**— (Management Information Message Support) Used to support two types of capabilities; MIM endpoint initialization capability (SPID support), other Maintenance/Management capability. Valid entries are “y” or “n.” Enter “n” for ASAI and for all other vendors. Default is “n.” Form is adjusted accordingly.
- **CRV Length**— (Call Reference Value Length) Used to indicate the length of Call Reference Value (CRV) for each ASAI interface. Enter “1” or “2” (DEC=“2”). Default is “1.”

		Page 1 of 1
STATION		
Extension: _____		
Type: <u>asai</u>		COR: <u>1</u>
Port: _____		COS: <u>1</u>
Name: _____		
FEATURE OPTIONS		
	XID? <u>y</u>	Fixed TEI? <u>y</u>
	MIM Support? <u>n</u>	TEI: <u>3</u>

SCREEN 6-24. ASAI Station Form—Example Only

Note: The above form shows a system administered for CONVERSANT Voice Information System.

Implementation Note:

BCC field is only present if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

TEI field only displayed when the Fixed TEI field is “y.”

Circuit Pack Administration

Purpose

The Circuit Pack Administration form allows the user to administer circuit packs to carrier slots before the circuit packs are actually installed in the carrier or cabinet. This then allows the System to be configured (administered) when the circuit packs have not yet been physically inserted in their appropriate slots. Before any voice terminals, attendant consoles, or trunks can be administered in the System, the correct type of circuit pack must be installed in the appropriate slot or, using the Circuit Pack form, a circuit pack must be assigned to the slot.

The Circuit Pack Administration forms do not have to be completed if the System cabinet is equipped with the circuit packs at the time of administration.

Refer to Chapter 2 for circuit pack administration forms and associated instructions. (Note that the DS1 circuit pack and associated translations coverage is provided in Chapter 4.)

Note: For initial installation procedures, circuit packs should only be assigned slots per the hardware Configuration Layout record (obtained from the factory or Customer Services Support Organization). Arbitrarily assigning circuit packs to slots should not be attempted because this will eventually require (at the time of installation and test) realignment of the circuit packs and reworking associated wiring to agree with the software translations or new software translations to agree with the shipped hardware configuration.

Class of Restriction

Purpose

This form is used to implement Class of Restrictions (CORs). A COR is used to control call origination and termination. A system may have only one COR or as many as necessary to control calling privileges. Up to 64 different CORs (0 through 63) can be assigned. Note that CORs are assigned to facilities such as stations, they are not assigned to users.

Note that when a call is to a VDN extension, the COR of the caller and the VDN are compared to determine if the associated Call Vector can be accessed. After the vector is accessed, the COR of the VDN is used for further call permission checking.

Administration Commands

The following administration commands can be used to access the COR form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	cor	0-63
display	cor	0-63 ['print' or 'schedule']
list	partitioned group	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **COR Number**— Enter a number from 0 through 63 when completing a paper form. This is a display-only field when the form is accessed via an administration command such as change or display.
- **FRL**— Enter an originating FRL number from 0 through 7. This entry is used by AAR and/or ARS features to determine call access to an outgoing trunk group. Outgoing call routing is determined by a comparison of the FRLs in the AAR/ARS Routing Pattern and the FRL associated with the COR of the call originator (typically, a voice terminal user). An originating FRL of zero has the least calling privileges. Default is “7.”

Attendants use the FRL assigned via COR administration. This FRL is used for attendant origination and assisted calls.
- **APLT**— Enter “n” to allow access to EPSCS or CCSA off-net facilities. Default is “y.”
- **Calling Party Restriction**— Enter one of the following: “origination,” “outward,” “all-toll,” “tac-toll,” or “none.”
 - Origination restriction (“origination”) denies the calling party the ability to originate a call from the facility (that is, station) at any time. The party can only receive calls.

- Outward restriction (“outward”) denies the calling party the ability to directly access the exchange network.
 - All-toll restriction (“all-toll”) denies the calling party the ability to make both ARS and trunk access calls from a facility assigned the COR to certain toll areas as defined in the Dialed String Field on the Toll Analysis form. The Dialed String field on the form must be marked as being associated with the System’s Toll List. The call will complete if the facilities COR is also associated with an Unrestricted Call List and whose Dialed String field on the Toll Analysis form also matches the dialed number.
 - With “tac-toll” restriction, the calling party cannot make trunk access calls from the facility assigned the COR to certain toll areas as defined in the Dialed String field on the Toll Analysis form. The Dialed String field on the form must be marked as being associated with the System’s Toll List. The call will complete if the facilities COR is also associated with an Unrestricted Call List and whose Dialed String field on the Toll Analysis form also matches the dialed number. Refer to Toll Analysis form in this Chapter for additional information.
- **Partitioned Group Number**— Only displayed if the “Automatic Route Selection Partitioning” option is enabled and the Time of Day Routing has not been enabled on the System-Parameters Customer-Options form. Enter a PGN from one to eight. When AAR and ARS services are to be partitioned among different groups of users, all users in a specific group share the same PGN. The PGN is not a restriction but a means used to indicate the choice of call routing tables (that is, ARS/AAR Analysis) to be used on a particular call. Default is “1.”

Note: It is recommended that since OCM may place calls using ARS or AAR and may thus invoke the ARS/AAR Digit Conversion feature that a separate ARS/AAR partition (that is, unique PGN) be used. Though OCM can share trunks with ARS/AAR, it is recommended that this practice be avoided. An OCM adjunct will not be able to determine which trunk group has been selected by ARS/AAR for a particular call. Partitioned Groups are assigned using the COR form.
 - **Time of Day Chart Number**— Only displayed when the Time of Day Routing option has been enabled on the System-Parameters Customer-Options form. This value specifies which Time of Day chart is to be inspected to determine which call routing table (that is, ARS/AAR Analysis) is to be used to determine the muting pattern to be used on a particular call. Valid entries are 1 to 8.
 - **Called Party Restriction**— Enter one of the following: “inward,” “manual,” “termination,” or “none.”
 - Inward restriction (“inward”) denies the calling party the ability to receive incoming exchange network calls, attendant originated calls, and attendant completed calls.
 - Using manual termination restriction (“manual”), the called party may only receive calls originated or extended by the attendant.
 - Termination restriction (“termination”) denies the called party the ability to receive any calls at anytime.

- **Service Observing (see Note)**— Enter “y” to allow a voice terminal user to be monitored by a service observer otherwise, enter “n.” Only an “n” can be entered if the Service Observing option is not enabled on the System-Parameters Customer-Options form. Default is “n.”

Note: The use of Service Observing features may be subject to federal, state, or local laws, rules or regulations or require the consent of one or both of the parties to the conversation. Customers should familiarize themselves with and comply with all applicable laws, rules and regulations before using these features.

- **Forced Entry of Account Codes**— Enter “y” to indicate that an account code must be dialed when making outgoing trunk calls. Entering “n” indicates that an account code is not required. Default is “n.” As a result of entering a “y,” any voice terminal assigned the associated COR must dial an account code before making an outgoing call. Any trunk group assigned that COR cannot be accessed until an account code is dialed. If a call is being routed by AAR or ARS, account code checking is not done on the COR. Note that Forced Entry of Account Codes may also be required for all outgoing calls if the Forced Entry of Account Codes for Toll Calls field on the System-Parameters Customer-Options form is set to “y.” Note that if a COR requiring entry of account codes is assigned a VDN, the route to commands executed by the associated vector will not be successful.
- **Priority Queuing**— Enter “y” to allow the voice terminal user’s calls to be placed ahead of nonpriority calls in a hunt group queue; otherwise, enter “n.” Only an “n” can be entered if the ACD Option is not enabled on the System-Parameters Customer-Options form. Default is “n.”
- **Direct Agent Calling**— Enter “y” to allow a user to originate or receive direct ACD agent calls. When disabled (“n” entered in field), the user can neither originate nor receive direct agent calls. Default is “n.” This is used whenever a caller should talk directly with a specific ACD agent, not just anyone in the pool of agents. If the System is in Night Service, the call will be routed to the Night Service extension.
- **Restricted Call List**— Enter “y” to specify that this COR will have access to the System’s Restricted Call List (see Toll Analysis form). This list can be used whether or not the COR is toll restricted. The Restricted Call List (RCL) has priority over the Toll Analysis Unrestricted Call List (UCL). A call attempt from a facility assigned a COR (with RCL field = “y”), whose dialed digit string is on the Toll Analysis form and is marked as being associated with the RCL, will be denied. Valid entries are “y” or “n.” Default is “n.”
- **Facility Access Trunk Test**— Enter “y” to allow Facility Access Trunk Tests (FAT). Test calls from facilities (for example, voice terminals) will be allowed to complete if their COR FAT field = “y.” For calls from facilities whose COR FAT field = “n,” intercept treatment will be given. An associated feature button (that is, “trk-ac-alm”) status lamp will light when a successful FAT access has occurred. Pressing one of the alarm buttons (ten maximum) when it’s associated status lamp is lighted will turn off all lamps on all buttons whether or not the access is still in progress or has completed. Valid entries are “y” or “n.” Default is “n.”

- **Unrestricted Call List**— Only displayed if the Calling Party Restriction field is “all-toll” or “tac-toll.” The Unrestricted Call List (see Toll Analysis form) is a list of digit strings that can be dialed from the facility assigned the COR. Enter Unrestricted Call List (UCL) numbers (1 through 10), where appropriate, to indicate the UCLs that the COR is to be associated with. Up to 10 unique UCL numbers may be entered in the fields provided. Valid entries are 1 through 10 or leave blank. Default is blank.

A toll call from a facility that is “all-toll” restricted, for example, will complete if it’s COR is associated with a UCL whose dialed string matches the dialed number. Note that the call will not complete if the COR is also associated with the System’s RCL and whose dialed string also matches the dialed number. The RCL takes precedence over the UCL.

- **Calling Permission 0 through 63**— Enter “n” for each COR number (0 through 63) that cannot be called by the COR being implemented. A “y” means that an originating facility assigned this COR can be used to call facilities assigned this COR. Default is “y.”

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CLASS OF RESTRICTION

COR Number: FRL:
 APLT? y Calling Party Restriction: none
 Partitioned Group Number: Called Party Restriction: none
 Service Observing? n Forced Entry of Account Codes? n
 Priority Queuing? n Direct Agent Calling?
 Restricted Call List? Facility Access Trunk Test? n
 Unrestricted Call List:

CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

0? <u>y</u>	8? <u>y</u>	16? <u>y</u>	24? <u>y</u>	32? <u>y</u>	40? <u>y</u>	48? <u>y</u>	56? <u>y</u>
1? <u>y</u>	9? <u>y</u>	17? <u>y</u>	25? <u>y</u>	33? <u>y</u>	41? <u>y</u>	49? <u>y</u>	57? <u>y</u>
2? <u>y</u>	10? <u>y</u>	18? <u>y</u>	26? <u>y</u>	34? <u>y</u>	42? <u>y</u>	50? <u>y</u>	58? <u>y</u>
3? <u>y</u>	11? <u>y</u>	19? <u>y</u>	27? <u>y</u>	35? <u>y</u>	43? <u>y</u>	51? <u>y</u>	59? <u>y</u>
4? <u>y</u>	12? <u>y</u>	20? <u>y</u>	28? <u>y</u>	36? <u>y</u>	44? <u>y</u>	52? <u>y</u>	60? <u>y</u>
5? <u>y</u>	13? <u>y</u>	21? <u>y</u>	29? <u>y</u>	37? <u>y</u>	45? <u>y</u>	53? <u>y</u>	61? <u>y</u>
6? <u>y</u>	14? <u>y</u>	22? <u>y</u>	30? <u>y</u>	38? <u>y</u>	46? <u>y</u>	54? <u>y</u>	62? <u>y</u>
7? <u>y</u>	15? <u>y</u>	23? <u>y</u>	31? <u>y</u>	39? <u>y</u>	47? <u>y</u>	55? <u>y</u>	63? <u>y</u>

SCREEN 6-25. COR Form When ARS Portioning is Enabled and TOD Routing is Disabled

Implementation Note:

The Partitioned Group Number field is only displayed if the “Automatic Route Selection Portioning” option is enabled and the “Time of Day Routing” option is disabled on the System-Parameters Customer-Options form.

CLASS OF RESTRICTION

COR Number: FRL: 7

APLT? y Calling Party Restriction: none

Time of Day Chart Number: 1 Called Party Restriction: none

Service Observing? n Forced Entry of Account Codes? n

Priority Queuing? n Direct Agent Calling?

Restricted Call List? Facility Access Trunk Test? n

Unrestricted Call List:

CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

0? <u>y</u>	8? <u>y</u>	16? <u>y</u>	24? <u>y</u>	32? <u>y</u>	40? <u>y</u>	48? <u>y</u>	56? <u>y</u>
1? <u>y</u>	9? <u>y</u>	17? <u>y</u>	25? <u>y</u>	33? <u>y</u>	41? <u>y</u>	49? <u>y</u>	57? <u>y</u>
2? <u>y</u>	10? <u>y</u>	18? <u>y</u>	26? <u>y</u>	34? <u>y</u>	42? <u>y</u>	50? <u>y</u>	58? <u>y</u>
3? <u>y</u>	11? <u>y</u>	19? <u>y</u>	27? <u>y</u>	35? <u>y</u>	43? <u>y</u>	51? <u>y</u>	59? <u>y</u>
4? <u>y</u>	12? <u>y</u>	20? <u>y</u>	28? <u>y</u>	36? <u>y</u>	44? <u>y</u>	52? <u>y</u>	60? <u>y</u>
5? <u>y</u>	13? <u>y</u>	21? <u>y</u>	29? <u>y</u>	37? <u>y</u>	45? <u>y</u>	53? <u>y</u>	61? <u>y</u>
6? <u>y</u>	14? <u>y</u>	22? <u>y</u>	30? <u>y</u>	38? <u>y</u>	46? <u>y</u>	54? <u>y</u>	62? <u>y</u>
7? <u>y</u>	15? <u>y</u>	23? <u>y</u>	31? <u>y</u>	39? <u>y</u>	47? <u>y</u>	55? <u>y</u>	63? <u>y</u>

SCREEN 6-26. COR Form When TOD Routing is Enabled

Implementation Note: "Time of Day Routing" option is enabled on the System-Parameters Customer-Options form.

Class of Service

Purpose

Used to administer access permissions for call processing features that require dial code and/or feature button access permission. Note that Class of Service (COS) does not apply to trunk groups except for the Remote Access feature. A COS assignment defines whether or not a voice terminal user may access or use the following features and functions. Refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for descriptions of the listed features. Up to 16 different COS numbers may be administered (0 through 15).

- **Automatic Callback**— (feature)
- **Call Forwarding All Calls**— (feature)
- **Data Privacy**— (feature)
- **Priority Calling**— (feature)
- **Console Permission**— (allows multi-appearance voice terminal users to control the following features (normally controlled by the attendant):
 - Automatic Wakeup
 - Controlled Restrictions
 - Do Not Disturb
 - Call Forwarding All
 - Integrated Announcement Recording
- **Off-Hook Alert**— (see Emergency Access to Attendant feature). Requires that either the Hospitality or Emergency Access to Attendant (optional features) be enabled on the System-Parameters Customer-Option form.
- **Client Room**— (see Hospitality Services-allows use of the Check-In, Check-Out, Room Change/Swap, and Maid Status features). Requires that the Hospitality feature (optional feature) be enabled on the System-Parameters Customer-Option form. When Client Room is “y,” a user is required to dial a FAC and then the extension when activating a feature.

Administration Commands

The following administration commands can be used to access the COS form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	cos	—
display	cos	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required on the form.

The form lists the default values for each COS/feature combination. For a particular combination, a “y” allows access to the feature and an “n” denies access to the feature. Assign entries on the form for each COS to be implemented. Default values are shown on the form.

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	CLASS OF SERVICE															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Auto Callback	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
Call Fwd-All Calls	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
Data Privacy	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
Priority Calling	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
Console Perms	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Off-hook Alert	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Client Room	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

SCREEN 6-27. Class of Service Form—Example Only

Console Parameters

Purpose

This form is used to administer attendant console group parameters. This includes basic parameters for CAS and Inter-PBX Attendant Service (IAS). A list of the administered attendant consoles is also displayed on this form.

Administration Commands

The following administration commands can be used to access the Console Parameters form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	console-parameters	—
display	console-parameters	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **COS**— Enter a Class of Service (COS) number (0 through 15) that reflects the desired features for the attendant. Default is "1."
- **COR**— Enter the Class of Restriction (COR) number (0 through 63) that reflects the desired restrictions for the attendant console group. Default is "1."
- **Time Reminder on Hold (sec)**— Enter the time in seconds (10 through 1024) that a call remains on hold at the console before the attendant is alerted. In a CAS arrangement, the main and the branch consoles (when administered) should be administered the same. Default is "30."
- **Return Call Timeout (sec)**— Enter the time in seconds (10 through 1020) before a split away call (call removed from the console by the attendant for the purpose of answering another call) returns to the console. Default is "30."
- **Calls In Queue Warning**— Enter a number from 1 through 30 to indicate the number of incoming calls that can be in the attendant queue before the console's Call Waiting lamp lights. The first (leftmost) console's Call Waiting lamp lights when one, or more, incoming call(s) is waiting to be answered. The second lamp lights when the preset number is reached. Default is "5."
- **Time In Queue Warning (sec)**— Enter the number of seconds from 0 through 999 that a call can remain in the attendant queue before activating an alert. Valid entries are 0 through 999 or leave blank.
- **Ext Alert Port (TAAS)**— Enter the port number assigned to the external alerting device (this supports the Night Service—Trunk Answer From Any Station feature). The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot

(01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 08). When the attendant is not on duty, a voice terminal user can answer calls made to the attendant. The incoming call will activate a gong, bell, or chime. The voice terminal user then dials an access code from any unrestricted voice terminal and answers the call.

- **Attendant Lockout**— Enter “y” to activate the Privacy-Attendant Lockout feature; otherwise, enter “n.” If “y” is entered, the attendant is prohibited from reentering a call that has been extended to a voice terminal unless recalled by a voice terminal user on the call. Default is “y.”
- **CAS**— Enter “main” to enable the CAS Main feature; enter “branch” to enable the CAS Branch feature; otherwise, enter “none.” Note that the CAS Main or Branch features must be enabled on the System-Parameters Customer-Options form for either of these features to be functional here. Default is “none.”
- **f3RLT Trunk Group No.**—Enter the trunk group number from 1 through 99 corresponding to the Release Link Trunk (RLT) trunk group to the main location when supporting CAS Branch service.
- **CAS Back-Up Ext.**— If the System is a CAS Branch location, enter the extension number of a voice terminal, individual attendant console, hunt group, or TEG assigned to handle attendant seeking calls if the trunk group to the CAS Main is out of service or if CAS Branch is enabled. A VDN extension is not allowed. Valid entries are an extension number for a station, individual attendant console, hunt group, TEG, or leave blank.
- **Night Service Act. Ext.**— Is a display-only field that contains the extension of the current night service activation station, if any. Such a station is administered by assigning it a “night-setv” button.
- **IAS (Branch)**— Enter “y” to enable or “n” to disable the inter-PBX Attendant Service (IAS) Branch feature. Default is “n.”

Note: CAS and IAS cannot both be active at the same time.

- **IAS Tie Trunk Group No.**—Enter the number of the tie trunk group (1 through 99) to the main for the IAS (Branch). This entry is required when the IAS Branch field is “y.”
- **IAS Att. Access Code**— Enter the extension number of the attendant group at the main PBX (typically “0”). This entry is required when the IAS Branch field is “y.”
- **DID-LDN Only to LDN Night Ext.**— Enter “y” to allow only LDN calls to go to the listed directory night service number extension; otherwise, enter “n” (all attendant seeking calls will be routed there). Default is “n.”
- **List 1, List 2, List 3:**— Enter “system,” “group,” or “enhanced” to each List # as required. If “group” is entered, a subfield for the group number is displayed. The subfield has a default value of “1” (range is 1 through 100). Abbreviated Dialing Personal Lists cannot be assigned.

Common Shared Extensions— provided to the attendant group for parking calls. Common Shared Extensions are administered using two fields, a starting extension of the common shared block and the number of common shared extensions in the block. For additional information on the Call Park feature and Common Shared Extensions, refer to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201.

- **Starting Extension**— Enter an unassigned extension number that conforms to the Dial Plan Record. The associated numbers are used by the attendant to park calls.
- **Count**— Enter a number from 1 through 10 to indicate the number of consecutive extensions (beginning with the Start Extension) to be used as common shared extensions. Valid entries are 1 through 10, or leave blank.

These extension numbers (with no physical voice terminals assigned) are used by the attendant to park calls. For example, you may enter 4300/3 which directs the System to store three consecutive extension numbers 4300, 4301, and 4302. These numbers are given to the attendant so that he/she knows where to park a call and how many calls can be parked.

The extensions should be assigned to the optional Attendant Selector Console in the 00 through 09 block (bottom row) in any hundreds group for easy identification by the attendant. The lamp associated with the number will identify “call parked” or “no call parked” (instead of busy or idle status).

- **Assigned Members (Installed attendant console types)**— Display-only field. A list of all attendants in the group will be displayed. Individual attendant consoles are administered using the Attendant Console form.

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CONSOLE PARAMETERS

COS: <u>1</u>	COR: <u>1</u>
Time Reminder on Hold (sec): <u>30</u>	Return Call Timeout (sec): <u>30</u>
Calls In Queue Warning: <u>5</u>	Time In Queue Warning (sec): <u> </u>
Ext Alert Port (TAAS): <u> </u>	Attendant Lockout? <u>y</u>
CAS: <u>none</u>	RLT Trunk Group No.: <u> </u>
CAS Back-Up Ext.: <u> </u>	Night Service Act. Ext.: <u> </u>
IAS (Branch)? <u>n</u>	IAS Tie Trunk Group No.: <u> </u>
IAS Att. Access Code: <u> </u>	DID-LDN Only to LDN Night Ext? <u>n</u>

ABBREVIATED DIALING

List1: <u> </u>	List2: <u> </u>	List3: <u> </u>

COMMON SHARED EXTENSIONS

Starting Extension: <u> </u>	Count: <u> </u>

ASSIGNED MEMBERS (Installed attendant console types)

1: <u> </u>	5: <u> </u>
2: <u> </u>	6: <u> </u>
3: <u> </u>	7: <u> </u>
4: <u> </u>	

SCREEN 6-28. Console Parameters Form—Example Only

Data Modules

The following data modules can be used with the System:

- 7400A Data Module (see MPDM/MTDM)
- 7400B Data Module (see MPDM/MTDM)
- 7500B Data Module (ISDN Basic Rate Interface)
- Data Line Data Module
- MPDM/MTDM
- Netcon Data Module
- Processor Interface Data Module
- Recorded Announcement Data Module

This following pages describe the purpose of each data module and provide administration commands and form instructions.

7500B Data Module

Purpose

This form is used to implement a 7500B Data Module.

Administration Commands

The following administration commands can be used to access the 7500B Data Module form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	object	Qualifier*
add	data-module	xxxxx (extension or 'next')
change	data-module	xxxxx (extension number)
display	data-module	xxxxx (extension number) ['print' or 'schedule']
duplicate	data-module	xxxxx (extension number)
list	data-module	(starting ext number) xxxxx ('count') ['print' or 'schedule']
remove	data-module	xxxxx (extension number)

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form:

Page 1 of the Form

- **Data Extension**— When completing a paper form, enter the extension number to be assigned to the data module. A data extension can be a 1- to 5-digit number. The digits assigned must agree with the Dial Plan Record. When implementing the form, "Data Extension" is part of the input command used to access the form and is a display-only field.
- **Type**— Enter "7500."
- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 12).

BRI provides multipoint configuration capability which allows a previously assigned port to be specified more than once. However, for the following cases, the port will be assumed to be fully assigned:

- Maximum number of endpoints (currently two) is assigned on the port.

Note: Maximum number of endpoints can be any of the following: two voice-only, two stand-alone data, or one voice-only and one stand-alone data.

- One of the endpoints on the port is a fixed TEI station.
- One of the endpoints on the port has B-channel voice and B-channel data capability.
- One of the endpoints on the port has no SPID assigned, that includes terminals which have no SPID initialization capability.

Note: A 1-character entry of "X" in the Port field may not be used for BRI to indicate that there is no hardware associated with the port assignment (that is, Administration Without Hardware feature). The Administration Without Hardware feature does not support BRI-type endpoints.

- **Name**— Enter the name of the user associated with the netcon channel. The name is optional.
- **COS**— Enter the desired Class of Service (COS) number from 0 through 15. Default is "1."
- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63 that will allow or deny access. Default is "1."
- **Abbreviated Dialing List 1**— Enter "p" for personal, "s" for system, "g" for group, or "e" for enhanced. If "g" or "p" is entered, a group number or personal list number, respectively, is also required. This field can be left blank. The entry in this field and the following Hot Line Destination field support the Data Hot Line feature.
- **Special Dialing Option**— Enter one of three dialing options that are available. This identifies the destination of all call when this data module originates calls. Valid entries are "hot-line," "default," or leave blank.

• CIRCUIT SWITCHED DATA ATTRIBUTES

Note: These fields represent defaults needed for modem pooling conversion resource insertion when the endpoint does not support data query capability. These fields have no significance for data modules providing data query [all AT&T-supported BRI data modules (7500B and ADM)]. For AT&T BRI data modules, the default settings should be used.

- **Default Duplex**— Used to identify the duplex mode. Valid entries are "full" or "half." Default is "full."

- **Default Mode**— Used to identify the data mode. Valid entries are “sync” (synchronous) or “async” (asynchronous). Default is “asyn.”
- **Default Speed**— Used to identify the data rate. Valid entries are “1200,” “2400,” “4800,” and “19200.” Default is “1200.”

Note: When default mode is “sync,” valid entries also include speeds of “56000” and “64000.”

- **Data Module Capabilities**

- **Default ITC (Information Transfer Capability)**— Used to administer the information Transfer Capability when the 7500B data module is the originator of administered connector.
- **Default Data Applications**— Used to identify mode to be used for originating data calls when the mode is not specified with the calling parameters. This mode will also be used for terminating trunk calls which do not have bearer capability specified or administered connections. Possible mode values are M0 (mode 0), M1 (mode 1), M2 (mode 2), and M3/2 (mode 3/2 adaptable), or blank. Valid entries are “M0,” “M1,” “M2_A,” “M2_S,” or “M3/2.” Default is “M2_A.”

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- **XID**— Used to identify layer two XID testing capability. Valid entries are “y” (yes) or “n” (no). Default is “y.”
- **Fixed TEI**— Used to indicate whether or not the endpoint has Fixed TEI capability. TEI is used to identify a unique access point within a service. For Fixed TEI stations, the TEI must be administered. For terminals with automatic TEI capability, the associated TEI is assigned by the System. Valid entries are “y” (yes) or “n” (no). Default is “n.”
- **TEI**— Only displayed if the Fixed TEI field entry is “y.” Enter a 1-to 2-digit number in the range of 0 through 63.
- **MIM Support**— (Management Information Message Support) Used to support two types of capabilities; MIM endpoint initialization capability (SPID support), other Maintenance/Management capability. Valid entries are “y” or “n.” Default is “y.”
- **Endpoint Initialization**— Only displayed if the MIM Support field entry is “y.” Used to indicate the terminal's endpoint initialization capability. Endpoint initialization is a procedure, required for multipoint operation, by which User Service Order Profile (USOP) is associated with an endpoint on the BRI. This association is made via the SPID, administered into the system and entered into the BRI terminal. For a BRI terminal to become operational in a multipoint configuration, both the administered SPID and the SPID programmed into the BRI terminal must be the same. This means that the SPID of the new or re-used terminals must be programmed to match the administered SPID value. Valid entries are “y” (yes) or “n” (no). Default is “y.”

- **SPID**— Only displayed if the Endpoint Initialization field entry is “y.” The SPID is a variable parameter of up to ten digits. The SPID is a numeric string value, which means that a value of “00” is different from “000.” The SPID must be different for all terminals on the BRI and on the Service SPID. The SPID should always be assigned, if the SPID is not assigned for the first BRI on a port, any other BRI assignment to that port will be blocked. Valid entries are numeric strings in the range of 0 through 9999999999. Default is the station’s extension number.
- **MIM Mtce/Mgt**— Only displayed if the MIM Support field entry is “y.” Used to indicate if the terminal supports MIM Maintenance and Management capabilities, other than endpoint initialization. Valid entries are “y” (yes) or “n” (no). Default is “y.”

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DATA MODULE

Data Extension: _____ Type: 7500 Port: _____
 Name: _____ COS : 1 COR : 1

ABBREVIATED DIALING
 List1: _____

SPECIAL DIALING OPTION: hot-line
 HOT LINE DESTINATION
 Abbreviated Dialing Dial Code (From above list) : _

CIRCUIT SWITCHED DATA ATTRIBUTES (used for modem pooling)
 Default Duplex: full Default Mode: async Default Speed: 1200

DATA MODULE CAPABILITIES
 Default ITC: restricted Default Data Application? M2_A

SCREEN 5-29. 7500B Data Module Form (Page 1)—Example Only

Implementation Note:

HOT LINE DESTINATION only displayed when “hot-line” is entered in the SPECIAL DIALING OPTION field.

DEFAULT DIALING only displayed when “default” is entered in the SPECIAL DIALING OPTION field.

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is “hot-line” or “default.”

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DATA MODULE

BRI LINK/MAINTENANCE PARAMETERS

XID? y Fixed TEI? n TEI:

MIM Support? y Fixed Init? y SPID: 300 MIM Mtce/Mgt? y

SCREEN 6-30. 7500B Data Module Form (Page 2)—Example Only**Implementation Note:**

The TEI field is only displayed if the Filed TEI field entry is “y.”

The Endpt Init, SPID, and MIM Mtce/Mgt fields are only displayed if the MIM Support field entry is “y.”

The SPID field is only displayed when the Endpt Init field entry is “y.”

Data Line Data Module

Purpose

The Data Line Data Module (DLDM) form is used to assign ports on the TN726 Data Line circuit pack (DLC) that allows EIA (EIA 232C) devices* to connect to the System. The DLC, with a companion ADU, provides a less expensive data interface to the System than data modules such as DTDMs, MPDMs, or MTDMs.

The DLC supports asynchronous transmissions at speeds of Low and 300, 1200, 2400, 4800, 9600, and 19200 bps (bits per second) over 2-pair (full-duplex) lines. These lines can have various lengths, depending on the transmission speed and wire gauge.

The DLC has eight ports. The connection from the port to the EIA device is *direct*, meaning that no multiplexing is involved. A single port of the DLC is equivalent in functionality to a data module and a digital line port. The DLC appears as a data module to the Digital Terminal Equipment (DTE) and as a digital line port to the switch.

The DLC connects the following EIA 232C equipment to the System:

- Printers
- Non-Intelligent Data Terminals
- Intelligent Terminals, Personal Computers (PCs)
- Host Computers
- ISN (Information Systems Network), EIA 232C LANs (Local Area Networks), or other data switches

The following figure shows some typical DLC applications.

* In this chapter, the term "device" is used to refer to EIA (EIA 232C) equipment including data terminals, personal computers, printers, and host computers.

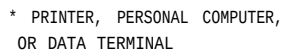


FIGURE 6-8. TN726 Data Line Circuit Pack Applications

Administration Commands

The following administration commands can be used to access the DLDM form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	data-module	xxxx (extension or 'next')
change	data-module	xxxx (extension number)
display	data-module	xxxx (extension number) [print or schedule]
duplicate	data-module	xxxx (extension number to be duplicated)
list	data-module	(starting ext number) xxxx ('count') [print or schedule]
remove	data-module	xxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Data Extension**— Enter the extension number assigned to the Data Line port. A data extension number can be from 1 to 5 digits. The digits assigned must agree with the Dial Plan Record.
- **BCC (Bearer Capability Class)**— This field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form. It is a display-only field. The value in the field corresponds to the speed setting of the data module. A BCC of "1" relates to 56 kbps, BCC values of 2, 3, and 4 relate to 64 kbps. The entry in this field should be compared with the BCC value in an associated routing pattern when attempted calls utilizing the data module fail to complete. The BCC values must be the same.

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls. The BCC value is used to determine compatibility when non-ISDN-PRI facilities are connected to ISDN facilities (ISDN-PRI InterWorking feature).

- **Type**— Enter "data-line."
- **Port**— Enter five to six characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet); the last two characters identify the circuit number (01 through 08).
- **Name**— Enter the name of the user associated with the data module. The name is optional, it can be left blank.
- **COS**— Enter the desired Class of Service (COS) number from 0 through 15. Default is "1."

- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63. Default is "1."
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint's information transfer capability. Default is restricted.
- **Connected To**— Enter "dte" (Data Terminal Equipment) or "isn" (Information Systems Network). This field shows what the ADU is connected to. Default is "dte."
- **List 1**— Enter "p" for personal, "s" for system, "g" for group, or "e" for enhanced. If "g" or "p" is entered, a group number (1 through 100) or personal list number (1 through 3) is also required.
- **Special Dialing Option**— Enter one of three dialing options that are available. This identifies the type of dialing for calls when this data module originates calls. Valid entries are "hot-line," "default," or leave blank for regular (normal) keyboard dialing.
- **Hot Line Destination Abbreviated Dialing Dial Code**— Only displayed when the Special Dialing Option field is "hot-line." Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook on a Data Hot Line call.
- **Default Dialing Abbreviated Dialing Dial Code From above list**— Only displayed when the Special Dialing Option field is "default." Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook and enters a carriage return following the "DIAL" prompt. The data call originator can also perform data terminal dialing by specifying a dial string that may or may not contain alphanumeric names.
- **Ext**— Make no entry. The extension number is automatically assigned when the system is administered. This is the extension number of the user who has an associated Data Extension button and will share the module.
- **Name**— Make no entry. The name is assigned when the System is administered. This is the name assigned to this extension number.

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Refer to the DLC Option Settings information that follows these instructions for additional information when assigning entries for the remaining fields on the form.

- **Keyboard Dialing**— Enter "y" to allow keyboard dialing; otherwise, enter "n." This enables the data endpoint to receive and transmit text during call origination or termination. If "y" is entered, complete the following applicable fields. If "y" is entered in this field, an "n" must be entered in the Low field.

This option must be enabled to allow data endpoints to originate calls via the EIA 232C interface and obtain ASCII feedback text. When enabled, the user will get the dial prompt. This option is normally enabled for "originate/receive" DTE that has a need to set up data calls. If this option is disabled, originations cannot be done at the DTE and text feedback will not occur at the DTE during call setup/take down. Data call answering is still allowed but without text feedback.

- **Configuration**— Enter "y" to allow the viewing and changing of options from the DTE; otherwise, enter "n." (This field appears only when "KYBD Dialing" is enabled.)

This option is normally enabled for “originate/receive” DTE, such as non-intelligent terminals, and disabled for intelligent devices such as computers. Keyboard dialing must be enabled with this option.

- **Busy Out**— Enter “y” to place the DLC port in a busied-out state once the DTE control lead to the DLC is dropped; otherwise, enter “n.” This option should be enabled for DTEs that are members of a hunt group and to allow “busy out” when DTE turns power off so that calls will not terminate on that DTE.
- **SPEEDS—Low**— Enter “y” to instruct the DLC to operate at a low speed from 0 to 1800 bits per second (bps). Enter “n” if “y” is entered in the Keyboard Dialing field.
- **SPEED—300; 1200; 2400; 4800; 9600; 19200**— Enter “y” beside the desired operating speed. Enter “n” if the speed is not desired. The DLC can be set to any one of these speeds. The speed will be matched for the duration of the call, from call setup to call takedown.

When multiple speeds are selected (select three or more, do not select just two speeds) and autoadjust is disabled, the DTE's speed must be set to the highest selected speed. This is required because all feedback text is delivered to the DTE at the highest selected speed.

- **SPEEDS—Autoadjust**— Enter “y” which tells the DLC port to automatically adjust to the operating speed and parity of the DTE it is connected to. Enter “n” if this option is not desired. (This field only appears when “KYBD Dialing” is enabled.) Autoadjust can be selected with any of the speed selected in the previous step. Autoadjust allows the DLC port to determine the speed and parity of the DTE and then match itself to this speed. Autoadjust only applies to calls originated by the user through Keyboard Dialing.

If “Autoadjust” is set to “y,” the user must press [BREAK] and then [RETURN] to receive the “DIAL” prompt.

- **Permit Mismatch**— Enter “y” to instruct the DLC to operate at the highest selected speed, which is a higher rate than the far-end data module. Enter “n” if this option is not desired.

This option allows the EIA interface to operate at a rate different than that agreed to in the data module handshake. (The data module handshake is always the highest compatible rate as determined by the repotted speed option of each data module.) Permit Mismatch eliminates the need to change the DTE/DLC speed every time a call is placed to/from an endpoint operating at a different speed. When this option is enabled, the DLC reports the highest optioned speed and all the lower speeds (or the previously selected autoadjust speed only) during the handshake process. Caution must be used when using this option to send information from a DTE/DCE that is transmitting data at higher rates than that of the far end. Sustained usage of this type transmission will result in loss of data. Whenever this option is enabled, the DTE must be set to match the highest speed selected for the associated DLC port.

This option is intended to be used by a DTE device operating locally at a higher baud rate than that of its far-end connection but transmitting relatively low amounts of data (for example, a user typing at a terminal). Also, this option may be selected whether or not Keyboard Dialing is selected.

Note: The Low speed setting is not reported as an available speed when Permit Mismatch is enabled.

- **Dial Echoing**— Enter “y” to echo characters back to the DTE; otherwise, enter “n.” (This field is enabled only if “KYBD Dialing” is enabled.) Dial echoing should be disabled when keyboard dialing is done by an intelligent device.
- **Disconnect Sequence**— Enter “long-break” or “two-breaks” to select the sequence for a disconnect. A long-break is greater than two seconds and two-breaks is within one second. (This field is enabled only when “KYBD Dialing” is enabled.)
- **Answer Text**— Enter “y” to allow text messages to be delivered to the DTE when a call is being answered. Enter “n” if this option is not desired. (This field is enabled only when “KYBD Dialing” is enabled.)

This option enables text feedback which is normally delivered to the DTE when a call is answered or disconnected. The Answer Text option applies to DLC-generated text as well as *text* received from the System. If this option is disabled, the System will still generate the text, but the DLC will prevent it from being sent to the device. This applies to the following messages:

- Incoming Call
- Answered
- Disconnected
- Disconnected Other End

This option is usually disabled when the answering DTE is a computer or an intelligent device.

- **Parity**— Enter “even,” “odd,” “mark,” or “space” to select the desired type of parity. (This field is enabled only when “KYBD Dialing” is enabled.) The parities (even, odd, mark, and space) are generated by the DLC when call setup text is sent to the DTE. The DLC does not check the parity when receiving dialing characters. Parity has nothing to do with the far end; it is only for the DLC to terminal communications during call setup.
- **Connected Indication**— Enter “y” to give text feedback to the DTE when a connection has been established. (This field is enabled only when “KYBD Dialing” is enabled.) This option generates a “CONNECTED” message to the DTE when the connection has been established. If KYBD Dialing is not selected, the connected indication is provided by the DLC activating its EIA 232C control lead.

DLC Option Settings

The following provides additional information on the option settings for DLCs when used with the following types of devices:

- Printers
- Non-intelligent Terminals
- Data Terminals and Personal Computers
- Host Computers
- ISN

This information must be considered when completing the various fields on the DLDM form.

Printer

A DLC port, attached to a printer, usually terminates a data call. Therefore, in this connection, the printer is the endpoint device. The originating device maybe attached to a DCP mode 2 data module (such as the MPDM) or the DLC. A 23A ADU extends the range of the EIA 232C connection.

When a receive-only printer (or any printer that does not generate the Transmit Data and DTR leads) is used, the ADU must be powered from a small plug-mounted transformer (2012D, or equivalent) connected to pins 7 and 8 of the modular jack. (Refer to *ADU User Manual*, 555-401-701, for details.)

An ADU cannot be used if the printer has hardware flow control using the Clear To Send (CTS) lead. An ADU can be used, however, if the printer is using software flow control.

A printer connected to a DLC is usually assigned as a line. The following table lists the option settings for printer connections:

TABLE 6-C. DLDM Form Option Settings for Printer Connection

Field On Form	Option	Comments
speed	Highest speed at which the Printer operates	<i>Subject to distance limitations; Autoadjust not used</i>
KYBD Dialing	no	
Busy Out	yes	<i>If printer is member of Hunt Group</i>
Permit Mismatch	yes	<i>No, if printer is low speed</i>
Parity		<i>Don't care</i>
Dial Echoing		<i>Don't care</i>
Disconnect Sequence		<i>Don't care</i>
Answer Text		<i>Don't care</i>
Connected Indication		<i>Don't care</i>
Configuration	no	

Non-Intelligent Terminals

A non-intelligent terminal connected to the DLC is usually assigned as a line.

The following table lists the option settings for non-intelligent terminals.

TABLE 6-D. DLDM Form Option Settings for Connection to Non-Intelligent Terminals

Field On Form	Option	Comments
Speed	All speeds at which the terminal can operate; autoadjust	<i>Subject to distance limitations; Autoadjust only if Keyboard Dialing is yes and the Terminal can generate an ASCII "carriage return"</i>
KYBD Dialing	yes	
Busy Out	no	<i>Yes, if terminal is member of a hunt group</i>
Permit Mismatch	yes	-
Parity	Same as DTE	
Dial Echoing	yes	<i>Only if KYBD Dialing is yes</i>
Disconnect Sequence	2 <BREAK>s	<i>Depends on terminal</i>
Answer Text	yes	
Connected Indication	-	<i>Don't care</i>
Configuration	yes	

Data Terminals and Personal Computers

An intelligent data terminal or a personal computer (PC) attached to a DLC can either originate or terminate a data call. A single ADU at the site of the originating device extends the distance signals can travel to the switch (the model ADU depends on the terminal connector). An analog telephone can be attached to this arrangement whenever an ADU uses the standard building wiring.

The following table lists the option settings used for data terminal and personal computer connections.

TABLE 6-E. DLDM Form Option Settings for Connection to Data Terminal or Personal Computer

Field On Form	Option	Comments
Speed	All speeds at which the Data Terminal or PC can operate	<i>Subject to distance limitations; Autoadjust not used</i>
KYBD Dialing	yes	
Busy Out	no	<i>Yes, if device is accessed through a hunt group</i>
Permit Mismatch	yes	<i>No, if device does not support XON/XOFF flow control</i>
Parity	Same as DTE	
Dial Echoing	no	<i>These devices can dial in the ASCII stream without human intervention</i>
Disconnect Sequence	Long <BREAK>	-
Answer Text	no	<i>These devices may not want to see any text</i>
Connected Indication		<i>Don't care</i>
Configuration	yes	

Host Computers

A host computer may originate and terminate a data call. For this application, the number of DLCs required depend on the number of ports needed. An MADU can be used (instead of eight ADUs) to complete the connection.

The following table lists option settings for a port that has a terminating connection to a host computer.

Note: When Keyboard Dialing is disabled, the rest of the option settings are irrelevant.

TABLE 6-F. DLDM Form Option Settings for Terminating Connection to Host Computer

Field On Form	Option	Comments
Speed	All speeds at which the computer can operate	<i>Subject to distance limitations; Autoadjust not used</i>
KYBD Dialing	no	
Busy Out	-	<i>Don't care</i>
Permit Mismatch	-	<i>Don't care</i>
Parity	-	<i>Don't care</i>
Dial Echoing	-	<i>Don't care</i>
Disconnect Sequence	-	<i>Don't care</i>
Answer Text	-	<i>Don't care</i>
Connected Indication	-	<i>Don't care</i>
Configuration	-	<i>Don't care</i>

The following table shows the option settings for a port that has an originating connection from a host computer.

TABLE 6-G. DLDM Form Option Settings for Originating Connection From a Host Computer

Field On Form	Option	Comments
Speed	All speeds at which the computer can operate	<i>Subject to distance limitations; Autoadjust not used</i>
KYBD Dialing	yes	
Busy Out	no	<i>Yes, if computer is accessed through a hunt group</i>
Permit Mismatch	yes	<i>No, if computer does not support XON/XOFF flow control</i>
Parity	Same as DTE	
Dial Echoing	no	<i>The computer can dial in the ASCII stream without human intervention</i>
Disconnect Sequence	Long <BREAK>	-
Answer Text	no	<i>The computer may not want to see any text</i>
Connected Indication	-	<i>Don't care</i>
Configuration	no	

Information Systems Network

The DLC can also connect the Information Systems Network (ISN) to the System. The ISN can originate and terminate data calls.

Two lines are required for bidirectional data transmission between ISN and the System. As viewed by the System, these are: one terminating line (from ISN to the System) and one originating line (from the System to ISN). Fixed baud rate lines should be used in both directions.

To successfully connect the Z3A3 ADU to the DLC, a crossover cord (or 25-pair crossover cable) must be used between the DLC and the ADU. This connects the near-end pair of transmit data wires to the far-end receive pair and connects the near-end receive pair to the far-end transmit pair. Without crossover, data transfer cannot take place. Refer to the *ADU User Manual*, 555-401-701, for cabling information. Another method to achieve the necessary crossover is to use the D8AM-87 cord.

An ISN connected to a DLC is usually translated as two lines. The next two tables list the basic option settings for both the originating (outgoing) and the terminating (incoming) line. See the *ISN Application Notes*, 555-300-400, for additional information.

TABLE 6-H. DLDM Form Option Settings for Outgoing Line to ISN

Field On Form	Option	Comments
Speed	Highest Speed at which the ISN can operate	<i>Subject to distance limitations; Autoadjust not used</i>
KYBD Dialing	no	
Busy Out	no	<i>Yes, if ISN is accessed through a hunt group</i>
Permit Mismatch	no	<i>The ISN can operate at higher speeds than the data communications link; data loss can occur if Permit Mismatch is yes and the ISN is transmitting</i>
Parity	Same as ISN	
Dial Echoing	no	<i>The ISN can dial in the ASCII stream without human intervention</i>
Disconnect Sequence	Long <BREAK>	
Answer Text	no	<i>The ISN may not want to see any text</i>
Connected Indication	-	<i>Don't care</i>
Cofiguration	no	

TABLE 6-I. DLDM Form Option Settings for Incoming Line From ISN

Field On Form	Option	COMMENTS
Speed	Highest Speed at which the ISN can operate	<i>Subject to distance limitations; Autoadjust not used</i>
KYBD Dialing	yes	
Busy Out		<i>Don't care</i>
Permit Mismatch	no	<i>The ISN can operate at higher speeds than the data communications link; yes, if ISN has its Outgoing port set to high speed such as 9.6 kbps and the far-end connections will be at no greater than 9.6 kbps</i>
Parity	Same as ISN	
Dial Echoing	yes	
Disconnect Sequence	Long <BREAK>	
Answer Text	no	<i>The ISN may not want to see any text</i>
Connected Indication	-	<i>Don't care</i>
Configuration	no	

Page 1 of 2

DATA MODULE

Data Extension: BCC: _ Type: data-line

Port: _

COR: 1

ITC : restricted

Name: _____ COS: 1

connected To: dte

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: __

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-31. Data Line Data Module Form (Page 1)—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page 1 is "y."

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Hot Line Destination only displayed when the Special Dialing Option field is "hot-line."

Default Dialing only displayed when the Special Dialing Option field is "default."

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line" or "default."

Page 2 of 2

DATA MODULE

CAPABILITIES

KYBD Dialing? y Configuration? n

Busy Out? n

SPEEDS

Low? n 1200? y 4800? y 19200? y

300? y 2400? y 9600? y Autoadjust? n

OPTIONS

Permit Mismatch? n Dial Echoing? y

Disconnect Sequence: two-breaks Answer Text? y

Parity: even Connected Indication? y

SCREEN 6-32. Data Line Data Module (Page 2)—Example Only

Note: If KYBD Dialing is "y," the above page is displayed.

Page 2 of 2

DATA MODULE

CAPABILITIES

KYBD Dialing? n

Busy Out? n

SPEEDS

Low? y 1200? y 4800? y 19200? y

300? y 2400? y 9600? y

OPTIONS

Permit Mismatch? n

SCREEN 6-33. Data Line Data Module Form (Page 2)—Example Only

Note: If KYBD Dialing is "n," the above page is displayed.

Modular Processor Data Modules/Modular Data Modules

Purpose

These forms are used to assign Modular Processor Data Modules (MPDMs) and Modular Trunk Data Modules (MTDMs) in the system. One form is required for assigning MPDMs (700A, 700D) or 7400B Data Modules and another form for MTDMs (700B, 700C, 700E, 7400A). One form must be completed for each MPDM, 7400B, or MTDM in the System.

The MPDM or 7400B Data Module provides a DCE interface for connection to equipment such as data terminals, SMDR output devices, on-premises administration terminal, Message Server, PMS, AUDIX, and host computers. It also provides a DCP interface to the digital switch. (Digital Communications Equipment is the equipment on the network side of a communications link that provides all the functions required to make the binary serial data from the source or transmitter compatible with the communications channel.)

The MTDM provides an EIA DTE interface for connection to off-premises private line trunk facilities or a switched telecommunications network and a DCP interface for connection to the digital switch. (Data Terminal Equipment is the equipment comprising the endpoints in a connection over a data circuit. For example, in a connection between a data terminal and a host computer, the terminal, the host, and their associated modems or data modules make up the DTE.) The MTDM or 7400A Data Module can also serve as part of a conversion resource for Combined Modem Pooling.

Administration Commands

The following administration commands can be used to access the MPDM/MTDM form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	data-module	xxxx (extension or 'next')
change	data-module	xxxx (extension number)
display	data-module	xxxx (extension number) ['print' or 'schedule']
list	data-module	(starting ext number) xxxx ('count') ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

These instructions can be used to assign an MPDM and an MTDM. The differences in the fields on the forms are explained in the instructions. Note that administration instructions for a 7400B Data Module associated with a 7400D-series voice terminal are provided in the appropriate voice terminal information provided later in this chapter.

Make assignments as required for the following fields on the form:

- **Data Extension**— When completing a paper form, enter the extension number to be assigned to the data module. A data extension can be a 1- to 5-digit number. The digits assigned must agree with the Dial Plan Record. When implementing the form, “Data Extension” is part of the input command used to access the form and is a display-only field.
- **BCC (Bearer Capability Class)**— This field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form. It is a display-only field. The value in the field corresponds to the speed setting of the data module. A BCC of “1” relates to 56 kbps, BCC values of 2, 3, and 4 relate to 64 kbps. This field may be compared with the BCC value in an associated muting pattern when attempted calls utilizing the data module fail to complete. The BCC values must be the same.

Note: Refer to the GRS feature in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls. The BCC value is used to determine compatibility when non-ISDN-PRI facilities are connected to ISDN facilities (ISDN-PRI Interworking feature).

- **Type**— Enter “pdm” when assigning a DCE interface or “tdm” when assigning a DTE interface. Default is “pdm.”
- **Port**— Enter the port location that the data module is connected to. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 24).
- **Name**— Enter the name of the user associated with the data module. The name is optional, it can be left blank.
- **COS**— Enter the desired Class of Service (COS) number from 0 through 15. Default is “1.”
- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63. Default is “1.”
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint’s information transfer capability. Default is restricted.
- **Connected to**— Enter “dte” if the data module is connected to DTE or enter “isn” if connected to an ISN.
- **Remote Loop-Around Test**— Enter “y” if the data module supports a loop-back test at the EIA interface; otherwise, enter “n.” In general, AT&T equipment will support this test but it is not required by Level 2 Digital Communications Protocol.
- **Abbreviated Dialing List 1**— Enter “p” for personal, “s” for system, “g” for group, or “e” for enhanced. If “g” or “p” is entered, a group number (1 through 100) or personal list number (1 through 3), respectively, is also required. The entry in this field and the

following HOT LINE DESTINATION field support the Data Hot Line feature. This field can be left blank.

- **Special Dialing Option—** Enter one of three dialing options that are available. This identifies the type of dialing for calls when this data module originates calls. Valid entries are “hot-line,” “default,” or leave blank for regular (normal) keyboard dialing.
- **Hot Line Destination— Abbreviated Dialing Dial Code—** Only displayed when the Special Dialing Option field is “hot-line.” Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook on a Data Hot Line call.
- **Default Dialing Abbreviated Dialing Dial Code From above list—** Only displayed when the Special Dialing Option field is “default.” Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook and enters a carriage return following the “DIAL” prompt. The data call originator can also perform data terminal dialing by specifying a dial string that may or may not contain alphanumeric names.
- **Ext—** Make no entry. The extension number is automatically assigned when the system is administered. This is the extension number of the user who has an associated Data Extension button and will share the module.
- **Name—** Make no entry. The name is automatically assigned when the System is administered. This is the name assigned to the above extension number.

Page 1 of 1

DATA MODULE

Data Extension: ____ BCC: _ Type : p d m Port : _
 Name: _____ COS: 1 COR: 1
 ITC: _
 connected to: _ Remote Loop-Around Test: _

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: _

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-34. MPDM/MTDM Data Module Form—Example Only

Implementation Note:

The Type field may be either "pdm" or "tdm." If "tdm" is entered, the Connected to field is not displayed.

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is "hot-line."

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is "default."

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line" or "default."

Netcon Data Module

Purpose

Netcon data modules are the PDMs that are integrated into the System's network control ports that provide asynchronous circuit switched interfaces to the maintenance and administration terminals, Hospitality journal printers, and SMDR line printer. They are characterized by their special locations, that is, special port identifications.

Note: Refer to Data Modules in Chapter 4 for information on the administration, considerations, and uses of a Netcon channel interface.

Administration Commands

The following administration commands can be used to access the Netcon Data Module form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	data-module	xxxx (extension or 'next')
change	data-module	xxxx (extension number)
display	data-module	xxxx (extension number) ['print' or 'schedule']
list	data-module	(starting ext number) xxxx ('count') ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Data Extension**— When completing a paper form, enter the extension number to be assigned to the data module. A data extension can be a 1- to 5-digit number. The digits assigned must agree with the Dial Plan Record. When implementing the form, "Data Extension" is part of the input command used to access the form and is a display-only field.
- **BCC**— This field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form. It is a display-only field.

Note: Refer to the GRS feature in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and, data calls. The BCC value is used to determine compatibility when non-ISDN-PRI facilities are connected to ISDN facilities (ISDN-PRI Interworking feature).

- **Type**— Enter "netcon."

- **Physical Channel**— Enter a netcon data channel number from 01 through 04.
- **Name**— Enter the name of the user associated with the netcon channel. The name is optional.
- **COS**— Enter the desired Class of Service (COS) number from 0 through 15. Default is “1.”
- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63 that will allow or deny access. Default is “1.”
- **Maintenance Extension**— Enter the extension number required to perform maintenance functions on the standby netcon physical channel in a duplicated System. The standby remote loop around tests will fail if this field is not administered.
- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint's information transfer capability. Default is restricted.
- **Abbreviated Dialing List 1**— Enter “p” for personal, “s” for system, “g” for group, or “e” for enhanced. If “g” or “p” is entered, a group number or personal list number, respectively, is also required. This field can be left blank. The entry in this field and the following Hot Line Destination field support the Data Hot Line feature.
- **Special Dialing Option**— Enter one of three dialing options that are available. This identifies the destination of all call when this data module originates calls. Valid entries are “hot-line,” “default,” or leave blank.
- **Hot Line Destination—Abbreviated Dialing Dial Code**— Only displayed when the Special Dialing Option field is “hot-line.” Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook on a Data Hot Line call.
- **Ext**— Make no entry. The extension number is automatically assigned when the system is administered. This is the extension number of the user who has an associated Data Extension button and will share the module.
- **Name**— Make no entry. The name is assigned when the System is administered. This is the name assigned to the above extension number.

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DATA MODULE

Data Extension: BCC: _ Type: netcon Physical Channel : _
Name: _____ Cos: 1 COR: 1
Maintenance Extension: ____

ITC: restricted

ABBREVIATED DIALING
List1: _____

SPECIAL DIALING OPTION: _
HOT LINE DESTINATION
Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-35. Netcon Data Module Form—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOT LINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is "hot-line."

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line."

Processor Interface Data Module

Purpose

The Processor Interface data modules are the PDMs that are integrated into the System's synchronous/asynchronous Processor Interface circuit pack ports. They are used to provide the following interfaces:

- 3B/CMS (maximum of one)
- 3B/Message Server (maximum of one)
- DCS (maximum of eight)
- AUDIX (maximum of one)
- ISDN-PRI (maximum of eight)

Note: Not all maximums can be achieved at the same time).

Connections for these interfaces are achieved via a digital line port and MPDM combination, and/or in the case of DCS or ISDN-PRI, via a DS1 interface. One direct EIA connection is available (labeled as Processor Interface on the back of the Control Cabinet) for simplex operation. When used, the physical channel assignment (see below) must be "01." Use of the EIA connection eliminates the need for one digital line port/MPDM combination.

Administration Commands

The following administration commands can be used to access the Processor Interface Data Module form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	data-module	xxxx (extension or 'next')
change	data-module	xxxx (extension number)
display	data-module	xxxx (extension number) ['print' or 'schedule']
list	data-module	(starting ext number) xxxx ('count') ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Data Extension**— When completing a paper form, enter the extension number to be assigned to the data module. A data extension can be a 1- to 5-digit number. The digits assigned must agree with the Dial Plan Record. When implementing the form, "Data Extension" is part of the input command used to access the form and is a display-only field.
- **Type**— Enter "procr-infrc."
- **Physical Channel**— Enter the 2-digit circuit number of the Processor Interface port. A multi-carrier cabinet system supports the use of two Processor Interface circuit packs, the first circuit pack (mounted in Control Carrier A) supports physical channels or links 01 through 04, the second (mounted in Control Carrier A) supports physical channels or links 05 through 08. A single-carrier cabinet system supports one Processor interface circuit pack and physical channels or links 01 through 04 only. The Physical Channel number is referred to on associated System forms as the Interface Link number.
- **Name**— Enter the name of the system associated with the data channel, such as AUDIX, DCS, etc. This entry is optional.
- **COS**— Enter the desired Class of Service (COS) number from 0 through 15. Default is "1."
- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63 that will allow or deny access. Default is "1."
- **Maintenance Extension**— Enter the extension number required to perform maintenance functions on the standby physical channel in a duplicated System. The standby remote loop around tests will fail if this field is not administered.
- **Abbreviated Dialing List 1**— Enter "p" for personal, "s" for system, "g" for group, or "e" for enhanced. If "g" or "p" is entered, a group number or personal list number, respectively, is also required. The entry in this field and the Hot Line Destination field support the Data Hot Line feature. This field can be left blank.
- **Special Dialing Option**— Enter one of three dialing options that are available. This identifies the destination of all call when this data module originates calls. Valid entries are "hot-line," "default," or leave blank.
- **Hot Line Destination**— Abbreviated Dialing Dial Code-Only displayed when the Special Dialing Option field is "hot-line." Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook on a Data Hot Line call.
- **Ext**— Make no entry. The extension number is automatically assigned when the system is administered. This is the extension number of the user who has an associated Data Extension button and will share the module.
- **Name**— Make no entry. The name is assigned when the System is administered. This is the name assigned to the above extension number.

Page 1 of 1

DATA MODULE

Data Extension: _____ Type: procr-infc Physical Channel: _
Name: _____ Cos: 1 COR: 1
Maintenance Extension: _____

ABBREVIATED DIALING
List1: _____
SPECIAL DIALING OPTION: _
HOT LINE DESTINATION
Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-36. Processor Interface Data Module Form—Example Only**Implementation Note:**

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is "hot-line."

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is "default."

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line."

Recorded Announcement Data Module

Purpose

The TN750 Announcement circuit pack has a built-in data module that is administered using the Announcement Data Module form. This data module in conjunction with an administered Netcon Data Module (see Recorded Announcements in Chapter 4) allows the System to transfer the recorded announcements file from the TN750 announcement circuit pack to the System tape (save operation) and from the System tape to the announcement circuit pack (restore operation).

Administration Commands

The following administration commands can be used to access the Recorded Announcement Data Module form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	data-module	xxxx (extension or 'next')
change	data-module	xxxx (extension number)
display	data-module	xxxx (extension number) ['print' or 'schedule']
list	data-module	(starting ext number) xxxx ('count') ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form: Administer only one Recorded Announcement Data Module form. If several forms are administered, the last form entered will become part of the current translations (the previous form is overwritten).

- **Data Extension**— When completing a paper form, enter the extension number assigned to the announcement data module. A data extension can be a 1- to 5-digit number. The digits assigned must agree with the Dial Plan Record. When implementing the form using an administration command, the extension number is part of the input command.
- **Type**— Enter “announcement.”
- **Board**— Enter the announcement board number that indicates the physical board the announcement module is connected to. Enter three to four characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-earner cabinets depending on cabinet type).
- **Name**— Enter the name of the user associated with the data module. The name is optional, it can be left blank.
- **COS**— Enter the desired Class of Service (COS) number from 0 through 15. Default is “1.”

- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63. Default- is "1."
- **Ext**— Make no entry. This is the extension number of the user (previously administered) with associated Data Extension buttons who will share the module.
- **Name**— Make no entry. This is the name assigned to the above extension number.

Page 1 of 1

DATA MODULE

Data Extension:

Type: announcement

Board: _____

Name: _____

COS : 1

COR : 1

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext

Name

1:

SCREEN 6-37. Recorded Announcement Data Module Form—Example Only

Dial Plan

Purpose

The Dial Plan is the System's guide to translating the digits dialed by various System users. Refer to the Dial Plan and Single-Digit Dialing and Mixed Station Numbering features in the *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for additional information. Typical Dial Plan examples are shown for both Single-Digit and Mixed Station Numbering.

Administration Commands

The following administration commands can be used to access the Dial Plan Record form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	dialplan	—
display	dialplan	[print or schedule]

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Area Code**— Enter the area code number where the System is located. Valid entries are any area code in the form NXX where N is any digit 2 through 9 and X is any digit 0 through 9. Entry must be all digits.
- **Local PBX ID**— Enter a number from 1 through 63 to uniquely identify a node in a PBX network. The PBX ID is used by the automatic restoration capability of Administered Connections. The PBX ID entry must match the DCS switch node number and the SMDR node number if they are specified. The field may be left blank if automatic restoration, DCS, and SMDR are not used.
- **ARS Prefix 1 Required**— Enter "y" (system default) if dialing a "1" is required to call an area code; otherwise, enter "n." Enter "y" if the office codes in the HNPA are interchangeable with NPAs; otherwise, enter "n." Requiring a "1" Prefix is typically used within those area codes where local central office codes resemble area codes (that is, middle digit is a "0" or a "1"). For example: 201 in New Jersey, or 212 in New York.

The following examples show how dialed numbers are interpreted by the System if "y" is assigned to ARS Prefix 1 Required field. The number nine represents the ARS Access Code.

- 9+1+(212)-201-1234 infers a 10-digit toll call.
- 9+(212)-201-1234 infers that 212 is a local CO. System accepts only the first seven digits following the ARS Access Code. The number 212-2011 is sent to the CO.

- 9+201-1234 infers a 7-digit call within the HNPA.
- 9+1+201-1234 infers the first seven digits of a 10-digit toll call. The System waits for the remaining three digits. The number outputted is (201)-123-4xxx.

If the number being dialed is a toll call within the HNPA and the CO Code resembles an area code as in the example above, then the HNPA must also be included in the number dialed (refer to example number one).

- 9+922-1234 or 9+1+922-1234 infers a 7-digit call (or toll call) within the HNPA. This example differs from the preceding example in that the CO Code (922) does not resemble an area code.
- **Uniform Dialing Plan**— Enter “y” (yes) if a UDP is to be administered on this switch; otherwise, enter “n” (System default). If this field is set to “y,” the Dial Plan becomes six pages. Note that the UDP option must be enabled on the System-Parameters Customer-option form before a “y” can be entered in this field.

The UDP provides a common 4- or 5-digit dial plan that can be shared among a group of switches. Interswitch dialing and intraswitch dialing both require 4- or 5-digit dialing. The UDP is used with ETN, Main/Satellite/Tributary, and DCS configurations. Additionally, UDP can be used alone to provide uniform 4- or 5-digit dialing between two or more private switching systems without ETN, Main/Satellite/Tributary, or DCS configurations.

- **First Digit Table**— The First Digit table consists of fields for each possible first digit and dialed number length. The first digit ranges from 0 through 9 plus the [*] (star) and [#] (pound) symbols. The dialed digit length ranges from 1 through 6. Entries on the table (referred to as dial types) can be the following:
 - **blank (no object is assigned)**— All fields default to blank except for the first digit of 0 and dialed digit length of one, which is assigned as “attendant.” Users dialing the single digit 0 will be connected to the attendant group.
 - **“extension” (primary extension number)**— can have a first digit of 1 through 9 ([*] and [#] not allowed) and a dialed digit length of 1 through 5. For example, if extension numbers 400 through 499 are required, “extension” is entered at the intersection of the “-3-” column and the First Digit “4” row. If a 4-digit number is administered with a first digit of six, the extension numbers 6000 through 6999 will be allowed (“extension” is entered at the intersection of the “-4-” column and the First Digit “6” row). Note the “extension” cannot have the same first digit as the ARS or AAR facility access code (FAC).
 - **“fac” (feature access code)**— can have a first digit of 1 through 9 plus the [*] (star) and [#] (pound) symbols. A FAC can be from 1 to 3 digits in length. The [*] and [#] symbols count as a digit each when used and must be the first digit. For example, [*] [2] could be used to activate a feature and [#] [2] used to deactivate the feature. It is recommended that a FAC be the last item entered in a row when mixed numbering is used. Otherwise, problems may be encountered when 3-digit FACs and 4-digit extension number begin with the same first digit and the FAC is an abbreviated dialing list access code. If the abbreviated dial list entry that a user wants to dial in on a station feature button, no problems will be encountered in dialing. If a user manually dials the access code and the list entry number, he/she must wait for the interdigit time-out to expire after dialing the list access code and before dialing the list entry number. Otherwise, the call will go to intercept or to an extension number.

- **“tac” (trunk access code)**— can have a first digit of 1 through 9 ([*] and [#] not allowed) and be 1 to 3 digits in length. For example, nine could be used for local trunk access, 8 for WATS trunk access, and 7 for tie trunk access. A TAC must be the last item entered in a row when mixed station numbering is used. Note that the “tac” cannot have the same first digit as the ARS or AAR FAC.
- **“attendant”**— the attendant group number is fixed at the single digit 0 (default) and cannot be changed. Individual attendant access is provided by assigning each attendant an individual extension number.
- **“prefixed extension”**—is made up of a prefix (first digit) which can be a 1 through 9 ([*] and [#] not allowed) and an extension number of up to five digits in length. The maximum length of a prefix and extension combination is six digits. The purpose of the prefix is to identify the dial type as an extension. After digit collection, the prefix digit is removed from the string of dialed digits. The remaining digits (extension number) are then processed. A prefixed extension allows the use of extensions numbers with any first digit (the extension length must be specified on the table).

Note: The System does not support “prefixed extensions” with the same leading digit and adjacent lengths. For example, 3- and 4-digit extensions with the same leading digit cannot be used. Lengths must differ by at least two. Nor can the “prefixed extension” have the same first digit as the ARS or AAR facility access code (FAC).

Note: When a dial plan has mixed station numbering, extension numbers of various lengths (all with the same first digit) are mapped on the First Digit table as shown on Page 1 of the form. The System then employs an interdigit time-out to ensure that all dialed digits are collected. The interdigit time-out may add several seconds to the dial time. An alternative to the delay required in the time-out mechanism at the expense of dialing an extra digit is to use prefixed extensions in the dial plan.

- **Plan Length**— Only displayed if the UDP field entry is “y.” Enter the number of digits in the UDP. Valid entries are “4” or “5.” Default is “4.” These numbers are used to signify the use of a 4- or 5-digit Dial Plan.

Pages 2 through 6 of the Form

The following fields are only displayed if the UDP field entry is “y.”

- **CODE**— Enter a PBX Code number (1 through 9999) representing the first one, two, three, or four digits of a 4- or 5-digit extension. Each PBX Code will have an associated LCL, RNx, and ID field. Fields are provided for up to 240 PBX Codes. It is possible that the code can be the same as a local extension number. In this case, the UDP PBX code overrides the extension number at the local switch.

- **LCL**— Enter “y” if the associated PBX Code is local to the System being administered. Enter “n” if it is located on a remote switch or PBX.

CAUTION: Do not assign extensions as remote extensions (LCL = “n”) if they are currently administered to facilities on this switch.

- **RNX**— Enter the RNX assigned to the associated PBX in the form XXX (where X is any digit 0 through 9). In the System UDP, the PBX code yields the associated RNX and this RNX is then used to select a Routing Pattern for the call.
- **ID**— Enter a number from one through 63 representing a specific switch. At present, this field is used only with DCS. If DCS is not used, leave this field blank.

Dial Plan for Hotel/Motel Use

The dial plan can be implemented to provide easy access to internal hotel/motel services and to provide the capability to associate room numbers with guest room voice terminals. These numbers can be printed on a faceplate (not provided by AT&T) which can be placed over the front of the voice terminal. The next figure provides an example of how the numbers and features can be used on a faceplate.

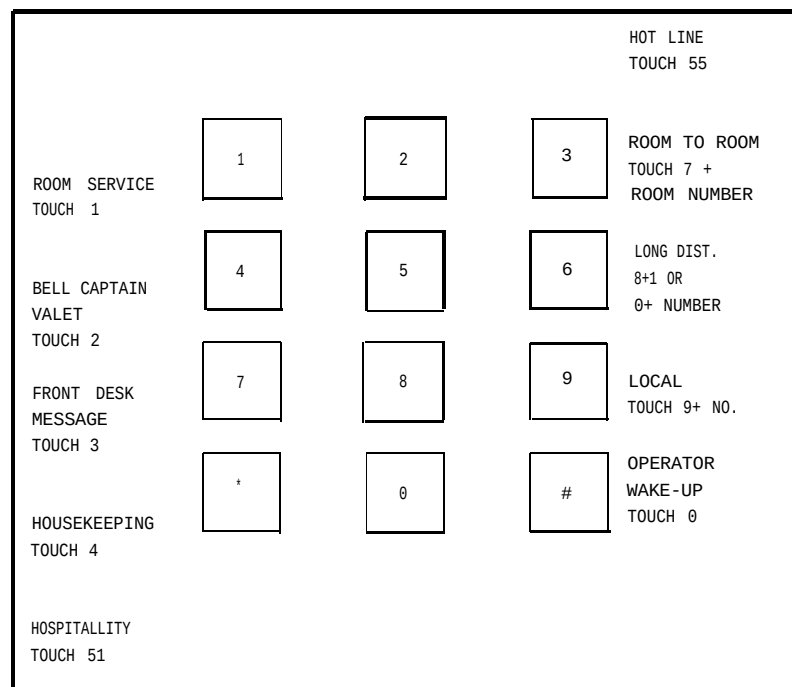


FIGURE 6-9. Typical Hotel/Motel Feature Assignments

Page 1 of 1

DIAL PLAN RECORD

(Page 1 of 1)"

Area Code: _
 ARS Prefix 1 Required? y
 Uniform Dialing Plan? n

Local PBX ID: _

FIRST DIGIT TABLE

First Digit	-1-	-2-	-3-	-4-	-5-	-6-
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
0:	attendant					
*	_____	_____	_____	_____	_____	_____
#:	_____	_____	_____	_____	_____	_____

SCREEN 6-38. Dial Plan Record Form—Example Only

Implementation Note:

This is a 1-page form if the UDP field is "n."

Page 1 of 6

DIAL PLAN RECORD

Area code: _

Local PBX ID: __

ARS Prefix 1 Required? y

Uniform Dialing Plan? y

Plan Length: 5

FIRST DIGIT TABLE

First Digit	-1-	-2-	-3-	-4-	-5-	-6-
1:	_____	_____	_____	_____	_____	_____
2:	_____	_____	_____	_____	_____	_____
3:	_____	_____	_____	_____	_____	_____
4:	_____	_____	_____	_____	_____	_____
5:	_____	_____	_____	_____	_____	_____
6:	_____	_____	_____	_____	_____	_____
7:	_____	_____	_____	_____	_____	_____
8:	_____	_____	_____	_____	_____	_____
9:	_____	_____	_____	_____	_____	_____
0:	attendant					
*	_____	_____	_____	_____	_____	_____
#:	_____	_____	_____	_____	_____	_____

SCREEN 6-39. Dial Plan Record Form—Example Only

Implementation Note:

This form becomes six pages if the UDP field is “y.”

Page 2 of 6

UNIFORM DIALING PLAN

CODE	LCL	RNX	ID	CODE	LCL	RNX	ID	CODE	LCL	RNX	ID	CODE	LCL	RNX	ID
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---

SCREEN 6-40. Dial Plan Record Form (Page 2)—Example Only

Note: To reduce repetition, pages 3 through 5 are not shown.

Page 6 of 6

UNIFORM DIALING PLAN

CODE	LCL	RNX	ID	CODE	LCL	RNX	ID	CODE	LCL	RNX	ID	CODE	LCL	RNX	ID
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---
---	-	---	---	---	-	---	---	---	-	---	---	---	-	---	---

SCREEN 6-41. Dial Plan Record Form (Page 6)—Example Only

Digit Absorption

Purpose

This form is used to implement up to five digit absorption lists. The form may be required for each CO and FX trunk group connected to a step-by-step CO. Each outgoing digit string from the switch to the step-by-step office is treated per entries in the “Absorption Treatment Assignment” section of the form.

Administration Commands

The following administration commands can be used to access the Digit Absorption form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	digit-absorption	0-4
display	digit-absorption	0-4 [print or schedule]

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **List Number**— This is a display-only field when accessed during administration using a command such as **change** or **display**. When completing a paper form, enter a list number 0, 1, 2, 3, or 4. The list number is referenced via field entry on the associated trunk group. Up to five different Digit Absorption forms maybe administered.
- **Absorption Treatment Assignment**— 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9—Enter a desired treatment letter (A through F). All choices for the digits 0 through 9 must be taken from the same group (that is, Group I or Group II). Default is “A.”

Page 1 of 1

DIGIT ABSORPTION

List Number: _

ABSORPTION TREATMENT INFORMATION (All selections must be from same group)

	Choice	Meaning
Group I.	A	Digit not absorbed.
	B	Digit absorbed repeatedly.
	C	Digit absorbed once with no further absorption.
Group II.	A	Digit not absorbed.
	D	Digit absorbed only if it is the first digit.
	E	Digit absorbed only if it is the second digit and the first digit was already absorbed.
	F	Digit absorbed only if it is the first or second digit.

ABSORPTION TREATMENT ASSIGNMENT (Select treatment (A-F) for each digit below)

0:	2:	4:	6:	8:
1:	3:	5:	7:	9:

SCREEN 6-42. Digit Absorption Form—Example Only

Feature Access Codes

Purpose

This form is used to assign feature access codes (FACs) that, when dialed, will activate or cancel certain System features.

Administration Commands

The following administration commands can be used to access the FACs form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	feature-access-codes	—
display	feature-access-codes	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Pages 1 through 4 of the Form

- In each field that ends with **Access Code**— enter the digits required to access the feature.

The emergency Access to Attendant Access Code cannot be used if the feature is not enabled on the System-Parameters Customer-Options form.

The access codes assigned to the Housekeeping Status (Client Room) and Housekeeping Status (Station) are assigned to reflect the customer requirements. These codes are transmitted to the PMS for processing.

- In each field that ends with **Activation**— enter the digits required to activate the feature.
- In each field that ends with **Deactivation**— enter the digits required to cancel or deactivate a feature.

Page 2 of the Form

- **Leave Word Calling Message Retrieval Lock**— Enter the digits that must be dialed to lock the display module on voice terminals. Valid entries are a 1- to 3-digit number consisting of the 0 zero through 9; * and # can be used as the first digit. (The lock function is activated at a voice terminal by dialing the systemwide Lock access code. This prevents unauthorized users from displaying, canceling, or deleting messages associated with the voice terminal.) The Lock Messages field on the voice terminal form must also be enabled. Default is “*1.”

- **Leave Word Calling Message Retrieval Unlock**— Enter the digits that must be dialed to unlock a voice terminal's display module. Valid entries are a 1-to 3-digit number consisting of the digits 0 through 9; [*] and [#] can be used as the first digit. The lock function is canceled at the voice terminal by dialing the Unlock security code (four digits) unique to the voice terminal. Default is " [#] 1."
- **Leave Word Calling Send A Message**— Enter the digits that must be dialed to send a message. Valid entries are a 1-to 3-digit number consisting of the digits 0 through 9; [*] and [#] can be used as the first digit. Default is " [*] 4."
- **Leave Word Calling Cancel A Message**— Enter the digits that must be dialed to cancel a message. Valid entries are a 1- to 3-digit number consisting of the digits 0 through 9; [*] and [#] can be used as the first digit. Default is " [#] 4."
- **Transfer into AUDIX**— Enter the digits that must be dialed to allow coverage to transfer the caller to the original call recipient's AUDIX mail box where the caller can leave a message. Valid entries are a 1- to 3-digit number consisting of the digits 0 through 9; [*] and [#] can be used as the first digit. Default is blank.

Page 3 of the Form

The next seven fields are only available for administration if the ACD option has been enabled on the System-Parameters Customer-Options form.

- **After Call Work Access Code**— Enter the digits the agent must dial when the agent will be performing work-related ACD activities.
- **Assist Access Code**— Enter the digit the agent must dial to request assistance from the split supervisor.
- **Auto-In Access Code**— Enter the digits the agent must dial to become automatically available to receive another ACD call on completion of a current call.
- **Aux Work Access Code**— Enter the digits the agent must press when the agent will be performing non-ACD activities.
- **Login Access Code**— Enter the digits the agent must enter to gain access to the ACD functions. This is a systemwide digit for all ACD agents.
- **Logout Access Code**— Enter the logout code the agent must enter to exit ACD. This is a systemwide logout code for all ACD agents.
- **Manual-In Access Code**— Enter the digits the agent must press to receive new ACD calls upon the completion of an ACD call.

Page 4 of the Form

The next five fields are only available if the Hospitality option has been enabled on the System-Parameters Customer-Options form.

- **Automatic Wakeup Call Access Code**— Enter the access code the user must dial to schedule or cancel a wakeup call.

- **Housekeeping Status (Client Room) Access Code**— Enter the access code the housekeeper dials from the client's room to provide room status. There are six codes.
- **Housekeeping Status (Station) Access Code**— Enter the access code the housekeeper must dial to provide room status. This access code must be dialed from designated voice terminals. There are four codes.
- **Verify Wakeup Announcement Access Code**— Enter the access code the user can dial to verify a wakeup announcement.
- **Voice Do Not Disturb Access Code**— Enter the access code the user must dial to enter or cancel a do not disturb request without using a display—through the use of voice prompting.

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FEATURE ACCESS CODE (FAC)

Abbreviated Dialing List1 Access Code:	<u>101</u>	
Abbreviated Dialing List2 Access Code:	<u>102</u>	
Abbreviated Dialing List3 Access Code:	<u>103</u>	
Announcement Access Code:	<u> </u>	
Answer Back Access Code:	<u>120</u>	
Auto Alternate Routing (AAR) Access Code:	<u> </u>	
Auto Route Selection (ARS) Access Code:	<u> </u>	Access Code2: <u> </u>
Automatic Callback Activation:	<u>*5</u>	Deactivation: <u>#5</u>
Call Forwarding Activation:	<u>*2</u>	Deactivation: <u>#2</u>
Call Park Access Code:	<u>115</u>	(see Note)
Call Pickup Access Code:	<u>*7</u>	
CAS Remote Hold / Answer Hold-Unhold Access Code:	<u> </u>	
Data Origination Access Code:	<u>134</u>	
Data Privacy Access Code:	<u>135</u>	
Emergency Access To Attendant Access Code:	<u> </u>	
Facility Test Calls Access Code:	<u>197</u>	

SCREEN 6-43. Feature Access Code Form (Page 1)—Example Only

Implementation Notes:

The Emergency Access to Attendant Access Code field is displayed when the optional Emergency Access to the Attendant feature has been enabled on the System-Parameters Customer-Options form.

Call Park Access Code—Do not administer to have the same first digit as another feature access code that is longer in length.

FEATURE ACCESS CODE (FAC)

Group Control Restrict Activation: <u>125</u>	Deactivation: <u>126</u>
Hunt Group Busy Activation: <u>*8</u>	Deactivation: <u>#8</u>
Last Number Dialed Access Code: <u>*9</u>	
Leave Word Calling Message Retrieval Lock: <u>*1</u>	
Leave Word Calling Message Retrieval Unlock: <u>#1</u>	
Leave Word Calling Send A Message: <u>*4</u>	
Leave Word Calling Cancel a Message: <u>#4</u>	
Print Messages Access Code: <u>_</u>	
Priority Calling Access Code: <u>117</u>	
Program Access Code: <u>*0</u>	
Send All Calls Activation: <u>*3</u>	Deactivation: <u>#3</u>
SMDR Account Code Access Code: <u>*6</u>	
Transfer into AUDIX: <u>_</u>	(see Note)
Trunk Answer Any Station Access Code: <u>112</u>	
User Control Restrict Activation: <u>105</u>	Deactivation: <u>106</u>
Voice Coverage Message Retrieval Access Code: <u>_</u>	
Voice Principal Message Retrieval Access Code: <u>_</u>	

SCREEN 6-44. Feature Access Code Form (Page 2)—Example Only**Implementation Note:**

Transfer into AUDIX Access Code—Do not administer to have the same first digit as another feature access code that is longer in length.

Page 3 of 4

FEATURE ACCESS CODE (FAC)

Automatic Call Distribution Features

After Call Work Access Code: _

Assist Access Code: _

Auto-In Access Code: _

Aux Work Access Code: _

Login Access Code: _

Logout Access Code: _

Manual-In Access Code: _

SCREEN 6-45. Feature Access Code Form (Page 3)—Example Only**Implementation Note:**

The ACD split group features are displayed when the optional ACD feature has been enabled on the System-Parameters Customer-Options Form.

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FEATURE ACCESS CODE (FAC)
Hospitality Features

Automatic Wakeup Call Access Code: _____
Housekeeping Status (Client Room) Access Code: _____
Housekeeping Status (Client Room) Access Code: _____
Housekeeping Status (Client Room) Access Code: _____
Housekeeping Status (Client Room) Access Code: _____
Housekeeping Status (Client Room) Access Code: _____
Housekeeping Status (Client Room) Access Code: _____
Housekeeping Status (Station) Access Code: _____
Housekeeping Status (Station) Access Code: _____
Housekeeping Status (Station) Access Code: _____
Housekeeping Status (Station) Access Code: _____
Verify Wakeup Announcement Access Code: _____
Voice Do Not Disturb Access Code: _____

SCREEN 6-46. Feature Access Code Form (Page 4)—Example Only**Implementation Note:**

The Hospitality features are displayed when the Hospitality feature has been enabled on the System-Parameters Customer-Options form.

Feature-Related System Parameters

Purpose

This form is used to implement System parameters associated with various System features.

Administration Commands

The following administration commands can be used to access the Feature-Related System Parameters form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	system-parameters features	—
display	system-parameters features	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Additional information on the parameters listed below can be found within feature descriptions of the same name by referring to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201.

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Trunk-to-Trunk Transfer**— Enter “y” to enable trunk-to-trunk transfer. This allows voice terminal users to set up trunk-to-trunk transfer, go on-hook without disconnecting the call, and forward the call to a remote location. Trunk-to-Trunk Transfer will only affect calls where both trunks are CO, FX, WATS, or CPE. Enter “n” (default) if this option is not desired.
- **Coverage—Don’t Answer Interval for Subsequent Redirection (rings)**— Enter the number of times a voice terminal in a Call Coverage path will ring before the call is routed to the next coverage point. Valid entries are 1 through 99. A typical (recommended) interval is 2 to 3 rings. Default is “3.”
- **Coverage—Caller Response Interval (seconds)**— Enter the time in seconds that the caller (internal caller only) will have before the call redirects to the called party’s first coverage point. The calling party can either hang up, use Leave Word Calling, or press [Go to Cover] during this time interval. Valid entries are 0 through 10. Default is “4.”
- **Keep Held SBA at Coverage Point**— Enter “y” (yes) to keep a simulated bridged appearance on hold at the coverage point when the principal enters the call; otherwise, enter “n.” If the bridged appearance is kept, the covering user may then enter the call along with the principal and the calling party.

- **Automatic Callback— No Answer Timeout Interval (rings)**— Enter the number of times that the callback call rings at the calling station before the callback call is canceled. Valid entries are 2 through 9. Default is "4."
- **Call Park Timeout Interval (minutes)**— Enter the number (of minutes) that a call can remain parked before it is canceled. Valid entries are 1 through 90. Default is "10."
- **Off-Premises Tone Detect Timeout Interval (seconds)**— Enter the number of seconds that a call progress tone receiver (CPTR) will try to detect a tone from off-premises during dialing. Once the time-out interval occurs, any additional call progress tones will not be recorded. Valid entries are 5 through 25. Default is "20."
- **AAR/ARS Dial Tone Require**— Enter "y" (yes) to indicate that a second dial tone is to be given to the calling party on a incoming tie or DID trunk call that is to be routed via AAR/ARS; otherwise, enter "n." A second dial tone provides feedback to the user that additional dialing can occur. Default is "y."
- **Music On Hold Port**— Enter the port number that will provide Music-on-Hold access. This requires a port on a TN783 Auxiliary Trunk circuit pack. For multi-carrier cabinets, enter the port network (1 through 3), the carrier letter (A to E), the slot numbers (01 through 20 depending on carrier type), and circuit number (01 through 24). For single-carrier cabinets, enter the port network (1 through 3), the carrier letter (A to E), the slot numbers (01 through 18 depending on cabinet type), and circuit number (01 through 24).
- **Music (or Silence) On Transferred Trunk Calls**— Enter "all" to allow all transferred trunk calls to receive music until the call is answered if the Music-on-Hold feature is available. Enter "no" if trunk callers are to hear music (or silence if Music-on-Hold is not administered) while waiting to be transferred, and then ringback as soon as the transfer is completed till the call is answered. Enter "call-wait" if trunk calls transferred to stations that require the call to wait, will hear music (if administered), all other transferred trunk calls will receive ringback tone.
- **DID/Tie/ISDN Intercept Treatment**— Enter a recorded announcement extension number or "0" for the attendant to be used for intercept of invalid DID and/or tie trunk calls. Default is "0."
- **Message Server Adjunct (MSA) Connected**— Enter "y" (yes) if MSA is connected to the System; otherwise, enter "n." Default is "n."
- **Automatic Circuit Assurance (ACA) Enabled**— Enter "y" if ACA measurements will be taken; otherwise, enter "n." If "y" is entered, complete the following ACA-related fields. Default is "n."
- **ACA Referral Calls**— (Only displayed when the ACA Enabled field is "y.") Enter "local" (default), "primary," or "remote" to indicate where ACA referral calls will be generated. Remote referral calls are generated at another switch in a DCS network. Local referral calls are generated on and for the local switch. Primary referral calls are generated on the local switch for remote switches as well as the local switch. Also, ACA button status will be transmitted to other switches when in a DCS network. Default is "local."
- **ACA Referral Destination**— Enter the extension on the local switch that is to receive the ACA referral call or enter "0" for attendant. The specified extension should be equipped with a display module. This field is only displayed if "local" or "primary" is entered in the ACA Referral Calls field.

- **ACA Short Holding Time Originating Extension and ACA Long Holding Time Originating Extension**— Enter an unassigned extension number in each field. Do not use the same extension number for both fields. The specified extensions are automatically assigned by the System when the form is submitted. These fields are only displayed if “local” or “primary” is entered in the ACA Referral Calls field.

The extension number assigned to ACA Short Holding Time originates ACA referral calls for short holding time warnings and is identified on the destination’s display module as “ACA CALL (SHORT).” The extension number assigned to ACA Long Holding Time originates ACA referral calls for long holding time warnings and is identified on the destination’s display module as “ACA CALL (LONG).”

- **ACA Remote PBX Identification**— Enter a number from 1 through 63 to identify the switch in a DCS network that makes the referral call. This field is only displayed if “remote” is entered in the ACA Referral Calls field. The remote PBX identified in this field must not be defined as “local” on the System’s Dial Plan form.

Page 2 of the Form

- **Primary Output Layout**— Specifies the output format that is sent to the primary recipient of SMDR data which is less likely to lose data. Allowable entries are dependent on the Output Layout Fields information as shown in the following table.
- **Secondary Output Layout**— Specifies the output format that is sent to the secondary recipient of SMDR data. Allowable entries are shown in the following table and depend on the Primary Output Layout field entry.

Note: Both the Primary Output Layout and the Secondary Output Layout fields can be administered to provide International output records that include PPM data.

TABLE 6-J. SMDR Primary/Secondary Output Layout Fields (Standard)

Description	Primary Output Layout Field Entry	Secondary Output Layout Field Entry
A record layout that can be sent to COMSTOR.	59-char	cdru/lsu or leave blank
A 24-word layout which has space between fields and can be output to printers, personal computers, etc.	expanded	cdru/lsu, unformatted or leave blank
A generic local storage unit. Either 94A/LSU or 3B2 CDRU fits this category. This is an 18-word record.	cdru/lsu	cdru/lsu or leave blank
An 18-word record layout which has spaces between the fields and can be output to printers, PCs, etc.	printer	cdru/lsu or leave blank
An 18-word record layout that can be sent to AT&T CAS or TELESEER SMDR.	teleseer	cdru/lsu or leave blank
A 24-word record layout that has no spaces between the fields and can be sent to printers, PCs, and the 3B2 CDRU.	unformatted	cdru/lsu, unformatted or leave blank
	leave blank	cdru/lsu or unformatted

TABLE 6-K SMDR Primary/Secondary Output Layout Fields (International G1.1SE and G1.2SE)

Description	Primary Output Layout Field Entry	Secondary Output Layout Field Entry
A record layout that can be sent to COMSTOR.	59-char	Isu, int-direct, int-process, ~or leave blank
A 24-word layout which has space between fields and can be output to printers, personal computers, etc.	expanded	Isu, unformatted, int-direct, int-process, or leave blank
A generic local storage unit. Either 94A/LSU or 362 CDRU fits this category. This is an 18-word record.	Isu	Isu, int-direct, int-process, or leave blank
An 18-word record layout which has spaces between the fields and can be output to printers, PCs, etc.	printer	Isu, int-direct, int-process, or leave blank
An 18-word record layout that can be sent to Call Accounting System or TELESEER SMDR.	teleseer	Isu, int-direct, int-process, or leave blank
A 24-word record layout that has no spaces between the fields and can be sent to printers, PCs, and the 362 CDRU.	unformatted	Isu, unformatted, int-direct, int-process, or leave blank
This record layout is identical to System 75 IR1V2 "printer" record, and includes the 5-digit PPM count for outgoing calls.	int-direct	Isu, int-direct, int-process, or leave blank
This record layout is identical to System 75 IR1V2 TELESEER SMDR record, and includes the 5-digit PPM count for outgoing calls.	int-process	Isu, int-direct, int-process, or leave blank
	blank	int-direct, ~int-process, Isu, ~unformatted

- **Primary and Secondary Output Destination**— Displayed when an entry is placed in the associated Primary or Secondary Output Layout field. Enter the extension number assigned the SMDR output device (assigned using an MPDM or MTDM Data Module form) or enter “eia” to indicate that the SMDR output device will use an EIA interface to the switch such as the DCE jack located on the the back of the Control Cabinet. Refer to the SMDR section in Chapter 4 for alternative SMDR device connection methods.
- **Use ISDN Layout**— Only displayed if the ISDN-PRI option is enabled on the System Parameters Customer Option form. Enter “y” if the SMDR port is to output data in ISDN format; otherwise, enter “n.” If the Primary Output Layout field is set to “59-char,” this field is not displayed.
- **EIA Device Bit Rate**— Enter the operating speed of the SMDR device. This field must be completed if “eia” was entered in the Output Ext. field. Allowable entries are “300,” “1200,” “2400,” “4800,” or “9600.” Default is “9600.”
- **SMDR Account Code Length**— Enter the number of digits that will be collected by tail processing when an SMDR account code is entered in the System. Valid entries are 1 through 15. All account codes must be the same length. Default is “2.”
- **Record Outgoing Calls Only**— Enter “y” to record SMDR information on outgoing calls only; otherwise, enter “n.” An entry of “n” enables both incoming and outgoing calls to be recorded. Default is “n.”
- **Disconnect Information In Place of FRL**— Enter “y” to allow call disconnect data to be recorded in the place of an FRL data on the SMDR report otherwise, enter “n” (default). An entry of “n” enables FRL field data to be recorded on the SMDR report. If “y” is entered, the following call disconnect data (1 through 3) is printed on the SMDR report instead of the FRL data:
 - “0”—don’t know who dropped first
 - “1”—station disconnected
 - “2”—the trunk dropped first
 - “3”—maintenance seized the trunk
- **Forced Entry of Acct Code for Calls Marked on Toll Analysis Form**— Enter “y” or “n” to indicate whether or not an account code will be required when making an outgoing call. The dialed strings associated with calls that require account codes are defined on the Toll Analysis form. Entering “y” requires the Forced Entry of Account Codes feature to be enabled on the System-Parameters Customer-Options form. Default is “n.”
- **Suppress SMDR for Ineffective Call Attempts**— Enter “y” to suppress recording unsuccessful call attempts; otherwise, enter “n.” An ineffective call attempt is a call originating at the station on the System that is blocked due to an insufficient FRL, Authorization Code feature, or no available outgoing trunks. Default is “y.”
- **Calls to Hunt Group-Record**— Allows SMDR to record calls made to a hunt group or member of a hunt group. Allowable entries are “group-ext” for the hunt group or “member-ext” for member of a hunt group. Default is “member-ext.”

- **Record Called Vector Directory Number Instead of Group or Member**— Enter “y” (yes) if a VDN will be included in the Dialed Number field of an SMDR record; otherwise, enter “n” (no). Note that this option overrides the “Calls to Hung Group Record” option. If a call is directed through more than one VDN, the first VDN is stored on the SMDR record. Default is “n.”
- **Record Non-Call-Associated Temporary Signaling Connection**— Only displayed if the Use ISDN Layouts field entry is “y.” Used to specify whether NCA-TSC should be recorded for SMDR. Note that information about CA-TSCs will be automatically included in the ISDN-format SMDR records of the associated calls if the Use ISDN Layouts field entry is “y.” Valid entries are “y” and “n.”
- **Privacy - Digits to Hide**— Enter the number of digits to be blanked from the SMDR call record. (The digits are blanked from the back of the dialed string. For example, if this field was set to “4,” and a user dialed 957-5567, only 957 would appear in the “Digits Dialed” field of the SMDR record.) This supports certain country requirements that specify a certain number of digits to be blanked from all calls. Valid entry is a number in the range of 0 through 7. Default is “0.”
- **Intra-switch SMDR**— Only displayed when the Primary Layout field entry is other than “59-char.” Enter “y” to allow SMDR records to be generated for internal calls to or from an administered set of extensions. Otherwise, enter “n.” Valid entries are “y” and “n.” Default is “n.”

Page 3 of the Form

- **Emergency Access Queue Length**— Enter the number of calls from 1 through 50 that can go in to the emergency queue. Default is “5.”
- **Time Before Off-Hook Alert**— Enter the time in seconds that a voice terminal with an Off-Hook Alert Class of Service can remain off-hook before an emergency call is sent to the attendant. Allowable entries are 10 to 3000 seconds. Default is “10.”
- **Redirection Extension on Full Emergency Access Queue**— Enter the extension number (can be a VDN) where emergency queue overflow will redirect.
- **Service Observing Warning Tone** —Enter “y” to assign a warning tone to be given to voice terminal users and calling parties whenever their calls are being monitored using the Service Observing feature. Enter “n” if this feature is not desired. Default is “n.”

Note: The use of Service Observing features may be subject to federal, state, or local laws, rules or regulations or require the consent of one or both of the parties to the conversation. Customers should familiarize themselves with and comply with all applicable laws, rules, and regulations before using these features.

- **Automatic Call Distribution (ACD) Log-in Identification Length**— The number of digits (0 through 9) that must be dialed *in order* to access Automatic Call Distribution (ACD). Default is “0.” If you are using CMS, this field cannot be “0.”
- **Outbound Call Management COR**— Enter desired COR number from 0 through 63.
- **Outbound Call Management CO**— Enter desired COS number from 0 through 15.

- **Controlled Outward Restriction Intercept Treatment**— Enter the type of intercept treatment the caller receives when the call is outward restricted. Allowable entries are: “announcement,” “attendant,” “extension” (may not be a VDN extension), or “tone.” If announcement or extension is entered, the extension number for the announcement or extension must be entered in an associated field. Default is “tone.”
- **Controlled Termination Restriction (Do Not Disturb)**— Enter the type of intercept treatment the caller receives when the call is placed to a termination restricted voice terminal. Allowable entries are: “announcement,” “attendant,” “extension” (may not be a VDN extension), or “tone.” If announcement or extension is entered, an associated extension number field must be completed. Default is “tone.”
- **Controlled Station-to-Station Restriction**— Enter the type of intercept treatment the caller receives when the call is placed to a restricted voice terminal. Allowable entries are: “announcement,” “attendant,” “extension” (may not be a VDN extension), or “tone.” If announcement or extension is entered, an associated extension number field is displayed. Enter the extension of the restricted voice terminal in the field. Default is “tone.”
- **Deluxe Paging and Call Park Timeout to Originator**— An entry of “y” enables the Loudspeaker Paging-Deluxe feature which essentially integrates the Loudspeaker Paging and Call Park features. All parked calls that time out (not answered by paged party) return to the parking party. An entry of “n” enables the Loudspeaker Paging feature. Paged calls that are to be parked require separate activation of the Call Park feature. All parked calls that time out return to the attendant. Default is “n.”
- **Authorization Code Enabled**— An entry of “y” enables the Authorization Codes feature on a system-wide basis. This field cannot be administered if the Authorization Codes feature is not enabled on the System-Parameters Customer-Options form. Default is “n.”
- **Authorization Code Length**— Enter a number from 4 through 7 that defines the number of digits (length) in the Authorization Code field. This field is displayed and must be completed if the Authorization Codes Enabled field is enabled. This is the number of digits that must be assigned to the Authorization Code field on the Authorization Code form. Default is “7.”
- **Authorization Code Cancellation Symbol**— Enter the symbol a caller must dial to cancel the 10-second wait period during which the user can enter an authorization code. The cancellation code # should be entered if the main and tandem switches are both the same type of switch. The cancellation code 1 must be entered if an AT&T System 85 or DIMENSION PBX switch is part of the complex/network. This field is displayed when the Authorization Code field is “y.” Default is “#.”
- **Attendant Time Out Flag**— Enter “y” if a call is to be routed to the attendant if the caller does not dial an authorization code within 10 seconds or dials an invalid authorization code. If this field is not enabled, the caller will receive Intercept tone. This flag affects only remote users or incoming calls over trunks requiring an authorization code. Default is “n.”

Page 4 of the Form

System Printer Parameters (printer dedicated to support the Report Scheduler feature):

- **Printer Extension**— Enter either the data module extension number associated with the System printer or enter "eia" if the DCE jack is used to interface the printer.
- **EIA Device Bit Rate**— Enter "1200," "2400," "4800," or "9600" per the required printer speed setting. Default is "1200."
- **Lines Per Page**— Enter the number of lines per page required for the report. Valid entries are 24 through 132 (system default is 60).

Basic Call Management Parameters:

- **Measurement Interval**— Enter the time interval ("hour" or "half-hour") to be used for polling and reporting measurement data. There are a maximum of 25 time slots available for measurement intervals. If "hour" is specified, an entire day of traffic information will be available for history reports; otherwise, only half a day will be available. This does not affect daily summaries as they will always reflect traffic information for the entire day. The interval may be changed at any time, but will not go into effect until the next hour boundary completes. Default is "hour."

The BCMS Measurements option must be enabled on the System-Parameters Customer-Options form before associated forms or fields on forms can be activated.
- **Adjunct CMS Release**— Specifies the release of the CMS adjunct used with the system. Allowable entries are <blank> or "R2." Default is <blank>.

Page 5 of the Form (Standard only)

Leave Word Calling Parameters/Security Violation Notification Parameters

- **Maximum Number of Messages Per Station (when MSA not in service)**— Enter the maximum number of LWC Messages (0 through 125) that can be stored by the System for a voice terminal at a given time. Default is "10."
- **Stations With System-wide Retrieval Permission (enter extension)**— Enter up to 10 voice terminal extension numbers that can retrieve LWC Messages for all other voice terminals. A VDN extension is not allowed. A "0" entry gives retrieval permission to all attendants.
- **SVN Login Violation Notification Enabled**— Enter "y" if a designated referral destination will be notified in the event of a login security violation. Otherwise, enter "n." Valid entries are "y" or "n." Default is "n."

The following four fields are only displayed when the SVN Login Violation Notification Enabled field entry is "y."

- **Originating Extension**— Enter the originating extension that is to initiate the referral call in the event of a login security violation. It also triggers the display of the appropriate alerting message on the referral destination display module. Valid entry is an unassigned extension number. Default is blank.
- **Referral Destination**— Enter the extension assigned to the station with display or attendant console that will receive the referral call in the event of a login security violation. Valid entry is an assigned extension or “0” (attendant). The referral destination, if a station, must be equipped with a display module. Default is blank.
- **Login Threshold**— Enter the minimum number of login security violations that will be permitted before a referral call is generated. The entry in this field and in the Time interval field will determine whether a login security violation has occurred. Valid entry is a number in the range 1 through 99. Default is “5.”
- **Time Interval**— Enter the time period within which the login security violations must occur. The time interval (in hours and minutes) is specified as two fields separated by a colon (that is, h:mm). Default is “0:03.”

- **SVN Remote Access Violation Notification Enabled**— Enter “y” if a designated referral destination will be notified in the event of a remote access violation. Otherwise, enter “n.” Valid entries are “y” or “n.” Default is “n.”

The following four fields are only displayed when the SVN Remote Access Violation Notification Enabled field entry is “y.”

- **Originating Extension**— Enter the originating extension that is to initiate the referral call in the event of a remote access security violation. It also triggers the display of the appropriate alerting message on the referral destination display. Valid entry is an unassigned extension number. Default is blank.
- **Referral Destination**— Enter the extension assigned to the station or attendant console that will receive the referral call in the event of a remote access security violation. Valid entry is an assigned extension or “0” (attendant). Default is blank. The referral destination, if a station, must be equipped with a display module.
- **Barrier Code Threshold**— Enter the minimum number of barrier code security violations that will be permitted before a referral call is generated. The entry in this field and in the Time Interval field, will determine whether a remote access security violation has occurred. Valid entry is a number in the range 1 through 99. Default is “10.”
- **Time Interval**— Enter the time period within which the remote access security violations must occur. The time interval is specified as two fields separated by a colon (that is, h:mm). Default is “0:03.”

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FEATURE-RELATED SYSTEM PARAMETERS

Trunk-to-Trunk Transfer? n

Coverage - Don't Answer Interval for Subsequent Redirection (rings): 3

Coverage - Caller Response Interval (seconds): 4

Keep Held SBA at Coverage Point? -

Automatic Callback - No Answer Timeout Interval (rings): 4

Call Park Timeout Interval (minutes): 10

Off-Premises Tone Detect Timeout Interval (seconds): 20

AAR/ARS Dial Tone Required? y

Music On Hold Port: -

Music (or Silence) On Transferred Trunk Calls: n

DID/Tie/ISDN Intercept Treatment: 0

Message Server Adjunct (MSA) Connected? n

Automatic Circuit Assurance (ACA) Enabled? n

ACA Referral Calls: local

ACA Referral Destination: _____

ACA Short Holding Time Originating Extension: _____

ACA Long Holding Time Originating Extension: _____

ACA Remote PBX Identification: -

SCREEN 6-47. Feature-Related System Parameters Form (Page 1)—Example Only (Standard)

Implementation Note:

If ACA Enabled is "n" associated ACA fields will not be displayed.

If ACA Referral Calls is "local" or "primary," the ACA Referral Destination and the ACA Short and Long Holding Time fields are displayed.

If ACA Referral Calls is "remote," the ACA Remote PBX Identification field is displayed.

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FEATURE-RELATED SYSTEM PARAMETERS

SMDR PARAMETERS

Primary Output Layout: _____ Primary Output Destination: on
 Secondary Output Layout: _____ Secondary Output Destination: on
 Use ISDN Layouts? n EIA Device Bit Rate: 9600
 SMDR Account Code Length: 2
 Record Outgoing Calls Only? n
 Disconnect Information In Place of Facility Restriction Level? n
 Forced Entry of Acct Code for Calls Marked on Toll Analysis Form? n
 Suppress SMDR for Ineffective Call Attempts? y
 Calls to Hunt Group-Record (Group or Member): member-ext
 Record Called Vector Directory Number Instead of Group or Member? -
 Record Non-Call-Associated Temporary Signaling Connections? -
 Privacy - Digits to Hide: -
 Intra-switch SMDR? -

SCREEN 6-48. Feature-Related System Parameters Form (Page 2)—Example Only (Standard)

Implementation Notes:

Use ISDN Layouts field only displayed if the ISDN-PRI feature is enabled on the System Parameters Customer Options form.

Record Non-Call associated Temporary Signaling Connections field only displayed if the Use ISDN Layout field entry is "y."

SMDR Call Splitting - Incoming field only displayed if the Record Outgoing Calls Only field entry (Page 2) is "n."

Attendant Call Recording field only displayed if one of the SMDR Call Splitting field entries is "y."

Intra-switch SMDR field only displayed when the Primary Layout field entry is other than "54-char."

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FEATURE-RELATED SYSTEM PARAMETERS

Emergency Access Queue Length: 5
Time Before Off-Hook Alert: 10

Redirection Extension on Full Emergency Access Queue: _
Service Observing Warning Tone? n

Automatic Call Distribution (ACD) Log-in Identification Length: 0
Deluxe Paging and Call Park Timeout to Originator? 0

Controlled Outward Restriction Intercept Treatment: tone _
Controlled Termination Restriction (Do Not Disturb): tone _
Controlled Station-to-Station Restriction: tone _

AUTHORIZATION CODE PARAMETERS

Authorization Code Enabled? n
Authorization Code Length: 7
Authorization Code Cancellation Symbol? #
Attendant Time Out Flag? n

SCREEN 6-49. Feature-Related System Parameters Form (Page 3)—Example Only (Standard)**Implementation Note:**

The Authorization Code Length, Cancellation Symbol, and Attendant Time Out Flag fields are only displayed when the Authorization Code Enabled field is “y.”

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FEATURE-RELATED SYSTEM PARAMETERS

SYSTEM PRINTER PARAMETERS

Printer Extension: _____
EIA Device Bit Rate: 1200
Lines Per Page: 60

CALL MANAGEMENT SYSTEM PARAMETERS

BCMS Measurement Interval: hour
Adjunct CMS Release: R2

SCREEN 6-50. Feature-Related System Parameters Form (Page 4)—Example Only (Standard)

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FEATURE-RELATED SYSTEM PARAMETERS

LEAVE WORD CALLING PARAMETERS

Maximum Number of Messages Per Station (when MSA not in service): 10

Stations with System-wide Retrieval Permission (enter extension)

1: 34430	3: <u>0</u>	5: _____	7: _____	9: _____
2: 34412	4: _____	6: _____	8: _____	10: _____

SECURITY VIOLATION NOTIFICATION PARAMETERS

SVN Login Violation Notification Enabled? y

Originating Extension: 36661	Referral Destination: 0
Login Threshold: 5	Time Interval: 0:03

SVN Remote Access Violation Notification Enabled? y

Originating Extension: 36662	Referral Destination: 0
Barrier Code Threshold: 1	Time Interval: 0:05

SCREEN 6-51. Feature-Related System Parameters Form (Page 5)—Example Only (Standard)

Implementation Notes:

The four fields immediately under SVN Login Violation Notification Enabled are only displayed if the Enabled field entry is "y."

The four fields immediately under SVN Remote Access Violation Notification Enabled are only displayed if the Enabled field entry is "y."

An Originating Extension must be a previously unadministered extension.

The originating extensions for login and remote access security violations cannot be the same as the originating extensions for ACA long and short holding time originating extensions. However, the destination extensions for both features can be the same.

A Referral Destination must be an extension equipped with a display. Enter "0" or local extension number for Referral Destination.

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FEATURE-RELATED SYSTEM PARAMETERS

Trunk-to-Trunk Transfer? n

Coverage - Don't Answer Interval for Subsequent Redirection (rings): 3

Coverage - Caller Response Interval (seconds): 4

Keep Held SBA at Coverage Point? _

Automatic Callback - No Answer Timeout Interval (rings): 4

Call Park Timeout Interval (minutes): 10

Off-Premises Tone Detect Timeout Interval (seconds): 10

AAR/ARS Dial Tone Required? y

Music On Hold Port: _____

Music (or Silence) On Transferred Trunk Calls: n

DID/Tie/ISDN Intercept Treatment: 0

Message Server Adjunct (MSA) Connected? n

Automatic Circuit Assurance (ACA) Enabled? n

ACA Referral Calls: local

ACA Referral Destination: _____

ACA Short Holding Time Originating Extension: _____

ACA Long Holding Time Originating Extension: _____

ACA Remote PBX Identification: _

**SCREEN 6-52. Feature-Related System Parameters Form (Page 1)—Example Form
(International G1.1SE and G1.2SE)**

Implementation Note:

If ACA Enabled is "n," associated ACA fields will not redisplayed.

If ACA Referral Calls is "local" or "primary," the ACA Referral Destination and the ACA Short and Long Holding Time fields are displayed.

If ACA Referral Calls is "remote," the ACA Remote PBX Identification field is displayed.

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FEATURE-RELATED SYSTEM PARAMETERS

Emergency Access Queue Length: 5
Time Before Off-Hook Alert: 10

Redirection Extension on Full Emergency Access Queue:
Service Observing Warning Tone? n

Automatic Call Distribution (ACD) Log-in Identification Length: 0
Deluxe Paging and Call Park Timeout to Originator? n
Controlled Outward Restriction Intercept Treatment: tone
Controlled Termination Restriction (Do Not Disturb): tone
Controlled Station-to-Station Restriction: tone

AUTHORIZATION CODE PARAMETERS

Authorization Code Enabled? n
Authorization Code Length: 7
Authorization Code Cancellation Symbol? #
Attendant Time Out Flag? n

**SCREEN 6-64. Feature-Related System Parameters Form (Page 3)—Example Only
(International G1.1SE and G1.2SE)**

Implementation Note:

The Authorization Code Length, Cancellation Symbol, and Attendant Time Out Flag fields are only displayed when the Authorization Code Enabled field is “y.”

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FEATURE-RELATED SYSTEM PARAMETERS

SYSTEM PRINTER PARAMETERS

Printer Extension: _____

EIA Device Bit Rate: 1200

Lines Per Page: 60

BASIC CALL MANAGEMENT PARAMETERS

Measurement Interval: _____

**SCREEN 6-55. Feature-Related System Parameters Form (Page 4)—Example Only
(International G1.1SE and G1.2SE)**

Hop Channel Assignments

Purpose

This form is used to assign up to 64 Hop Channels. Up to 64 connections may be established between channels on the System's interface links.

Administration Commands

The following administration commands can be used to access the Hop Channel Assignment form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	communication-interface	hop-channels
display	communication-interface	hop-channels ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

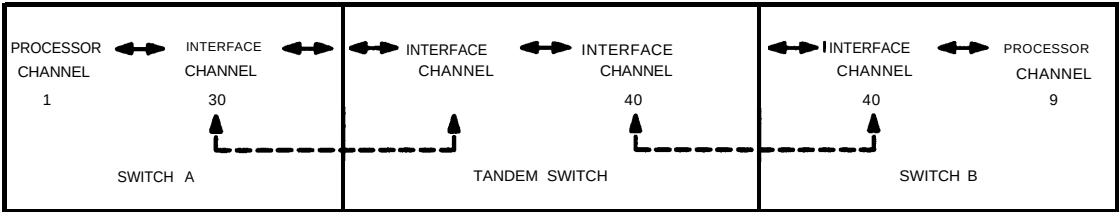
Observe the following when assigning hop channels:

- Both links in a hop channel assignment must be on the same Processor Interface circuit pack. Currently, links 1 through 4 are on Processor Interface circuit pack one and links 5 through 8 are on Processor Interface circuit pack two for multi-carrier cabinet systems (single-carrier cabinet systems have just four links).
- The Link/Chan pair must not be assigned to a local processor channel on the Processor Channel Assignments form.
- A link used for ISDN cannot be assigned on the Hop Channel Assignments form.
- All five fields associated with a hop channel must be either filled in or left blank.
- Use the following table to ensure that the interface link channel numbers match between switches.

Make assignments as required for the following fields on each page of the form

Pages 1 and 2 of the Form

- **Link (two fields)**— Enter an interface link number in each field from 1 through 8 for multi-carrier cabinet systems and 1 through 4 for single-carrier cabinet systems.
- **Chan (two fields)**— Enter a number from 1 through 64 in each field.
- **Priority**— Enter "h" or "l" to indicate whether the hop channel has high or low priority. Priorities should be assigned based on the operational speed of the links and the number of hops in the network channel.



THE INTERFACE CHANNELS ON THE TANDEM SWITCH SHOULD MATCH THE INTERFACE CHANNELS ON SWITCHES A AND B. THE PROCESSOR CHANNELS DO NOT HAVE TO MATCH.

FIGURE 6-10. Interface Channel Assignments Between Switches

Page 1 of 2

HOP CHANNEL ASSIGNMENT					
Link/Chan	Link/Chan	Priority	Link/Chan	Link/Chan	Priority
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

SCREEN 6-56. Hop Channel Assignment Form (Page 1)—Example Only

(To reduce repetition, page 2 is not shown)

Hospitality-Related System Parameters

Purpose

This form is used to implement the System parameters associated with the hospitality features.

Administration Commands

The following administration commands can be used to access the Hospitality-Related System Parameters form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier
change	system-parameters hospitality	—
display	system-parameters hospitality	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Message Waiting Configuration**— Indicates if message waiting notification requests and changes are being exchanged between the System and PMS. If it is active, the System and the PMS, when used, exchange message waiting information. Allowable entries are “act-nopms,” or “act-pms”; act-nopms indicates message waiting is activated but no waiting message information is being transmitted between PMS and the System; act-pms indicates message waiting is activated and transmitting information between the PMS and the System. Default is “act-nopms.”
- **Controlled Restrictions Configuration**— Indicates if notification of controlled restriction is being exchanged between the System and PMS. If “act-pms,” the System and the PMS, when used, exchange controlled restriction information. Allowable entries are “act-nopms,” or “act-pms.” Default is “act-nopms.”
- **Housekeeper Information Configuration**— Indicates if housekeeper information is being exchanged between the System and PMS. If “act-pms,” the System and PMS exchange housekeeper information. Allowable entries are “act-nopms,” or “act-pms.” Default is “act-nopms.”
- **Number of Housekeeper ID Digits**— Enter the number of digits from 0 through 6 that the housekeeper must dial for identification. Default is “0.”
- **Extension of PMS Log Printer**— Enter the extension number (may not be a VDN extension) of the data module or data line that is connected to the PMS/Log printer.

- **Extension of Journal/Schedule Printer**— Enter a valid data extension number (may not be a VDN extension) assigned to the Journal/Log printer. This extension number is dialed by the System so it can send log and scheduled hospitality reports information to the printer.
- **Client Room Coverage Path Configuration**— This field indicates if the PBX and PMS exchange coverage path information for guest stations. Setting this field to “act-pms” enables the PMS to update the coverage path of a guest station. Setting this field to “act-nopms” prevents the PMS from setting a room’s coverage path. Default is “act-nopms” prevents the PMS from setting a room’s coverage path. Default is “act-nopms.” When upgrading from a release that does not support this field, the field will be set to “act-pms” if the PMS protocol made was administered as “transparent.” Otherwise, this field will be set to “act-nopms.”
- **Default Coverage Path For Client Rooms**— Enter Coverage Path number (1 through 600) or leave blank (System default). This field defines the call coverage path number set for an extension when the System receives a check-out message in the “transparent” mode. The extension must belong to a station that has “Client Room” COS and has “occupied” room status (before check out). This value is also used during a “save translations” operation as the coverage path for each station with “Client Room” COS. Entries can only be made in this field when the PMS Protocol Mode field is “transparent.”
- **Extension of PMS**— Enter the data extension number (may not be a VDN extension) the System must dial to access PMS.
- **PMS Protocol Mode**— Enter “normal” (System default) or “transparent” to identify the mode of the message protocol and the message set to be used between the digital switch and the PMS. The “normal” mode supports up to 4-digit room extension numbers and the “transparent” mode supports up to 5-digit room extension numbers, name registration, and other enhancements.
- **Seconds Before PMS Link Idle Timeout**— Enter the idle time in seconds (5 through 20) the System will wait before it concludes that the PMS is not sending data across the transmission link. Default is “10.”
- **Milliseconds Before PMS Link Acknowledgement Timeout**— Enter the time in milliseconds (100 through 500) the System waits for an acknowledgement from the PMS indicating it correctly received a message. Default is “200.”
- **PMS Link Maximum Retransmission**— Enter the number of times (1 through 5) that the System will retransmit a message in response to a negative acknowledgement or send an inquiry for an acknowledgement from the PMS for a message before giving up on the message transmission. Default is “3.”
- **PMS Link Maximum Retransmission Request**— Enter the number of times (1 through 5) that the switch will request the PMS to retransmit a message. Default is “3.”

- **Take Down Link for Lost Messages**— Enter a “y” to cause the PBX to take down the PMS link if a message is sent and rejected the number of times specified in the “PMS Link Maximum Retransmissions” field. An “n” in this field causes the PBX to leave up the PMS link but to stop trying to send the message. Careful monitoring of the PMS error log is recommended when using this option. Default is “y.”

Note: It is recommended that this field be left at the default setting.

Page 2 of the Form

- **Time of Scheduled Wakeup Activity Report**— Enter the time the Wakeup Activity Report will be printed. This report summarizes the wakeup activity for each extension that had wakeup activity for the past 24 hours. Enter the time hh[:mm][a/pm] where hh=hour, mm=minute, a/pm=am or pm.
- **Time of Scheduled Wakeup Summary Report**— Enter the time the Wakeup Summary Report will be printed. This report gives an hour-by-hour summary of the number of scheduled wakeup calls and a list of extensions to which wakeup calls were attempted but did not complete during the hour. Enter the time hh[:mm][a/pm] where hh=hour, mm=minute, a/pm=am or pm.
- **Time of Scheduled Emergency Access Activity Report**— Enter the time the Emergency Access Activity Report will be printed. Enter the time hh[:mm][a/pm] where hh=hour, mm=minute, a/pm=am or pm.
- **Announcement Type**— Enter the type of automatic wakeup announcement the hotel guest will receive. Allowable entries are “external,” “music-on-hold,” “silence,” or “voice-synthesis.”

If “voice-synthesis” is entered, complete the Announcement Ports field. If “external” is entered, complete the Auxiliary Board for Announcement field.
- **Announcement Ports**— Enter two port numbers of 5 to 6 characters each. The port numbers are assigned to two different ports (01, 02, 03, 04—any two of the four) on the Voice Synthesizer circuit pack. The first port character identifies the network (1 to 2, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 04).
- **Auxiliary Board For Announcement**— Enter a 3- or 4-character circuit pack number. This field requests the circuit pack address that connects to the external announcement equipment. The first character identifies the network (1 through 2, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets).
- **Length of Time To Remain Connected To Announcement**— Enter the length of time in seconds (0 through 300) the hotel guest will receive a wakeup call announcement.
- **Extension To Receive Failed Wakeup LWC Messages**— Enter the extension number (may not be a VDN extension) where unsuccessful wakeup LWC messages will be stored. A dedicated unassigned extension (0 not allowed) is required.

- **Routing Extension On Unavailable Voice Synthesis**— Enter the extension number (may not be a VDN extension) or 0 (attendant) to which a call will be placed during voice synthesis entry of wakeup requests when a voice synthesis port is not available.
- **Display Room Information in Call Display**— Enter “y” when the information in the Room field on Station forms is to be used in the Extension Display field on display-equipped voice terminals. If the associated station form defines a “Client Room” COS and a non-blank value in the Room field, the characters in the Room field are shown in the extension portion of call displays. If the Room field has more than five characters, only the first five characters are shown. This supports situations where there are several phones with different extension numbers in one guest room. The room number will always be displayed no matter which phone is in use. Default is “n.”

Page 1 of 2

HOSPITALITY RELATED SYSTEM PARAMETERS

Message Waiting Configuration: act-nopms

Control Restrictions Configuration: act-nopms

Housekeeper Information Configuration: act-nopms

Number of Housekeeper ID Digits: 0

Extension of PMS Log Printer:

Extension of Journal/Schedule Printer:

Client Room Coverage Path Configuration: act-nopms

Default Coverage Path For Client Rooms:

PMS LINK PARAMETERS

Extension of PMS:

PMS Protocol Mode: normal

Seconds before PMS Link Idle Timeout: 10

Milliseconds before PMS Link Acknowledgement Timeout: 200

PMS Link Maximum Retransmissions: 3

PMS Link Maximum Retransmission Request: 3

Take Down Link for Lost Messages? y

SCREEN 6-57. Hospitality-Related System Parameters Form (Page 1)—Example Only

Page 2 of 2

HOSPITALITY RELATED SYSTEM PARAMETERS

Time of Scheduled Wakeup Activity Report: _____

Time of Scheduled Wakeup Summary Report: _____

Time of Scheduled Emergency Access Activity Report: _____

Announcement Type: silence

Length of Time To Remain Connected To Announcement: 30

Extension To Receive Failed Wakeup LWC Messages: _____

Routing Extension On Unavailable Voice Synthesis: _____

Display Room Information in Call Display? n

SCREEN 6-58. Hospitality-Related System Parameters Form (Page 2)—Example Only**Implementation Note:**

This is Page 2 when the Announcement Type field is “silence.”

Page 2 of 2

HOSPITALITY RELATED SYSTEM PARAMETERS

Time of Scheduled Wakeup Activity Report: _____

Time of Scheduled Wakeup Summary Report: _____

Time of scheduled Emergency Access Activity Report: _____

Announcement Type: voice-synthesis

Announcement Ports: _____

Length of Time To Remain Connected To Announcement: _____

Extension To Receive Failed Wakeup LWC Messages: _____

Routing Extension On Unavailable Voice Synthesis: _____

Display Room Information in Call Display? n

SCREEN 6-59. Hospitality-Related System Parameters Form (Page 2)—Example Only**Implementation Note:**

This is Page 2 when the Announcement Type field is “voice-synthesis.” The Announcement Ports field must be completed if “voice-synthesis” is entered as the Announcement Type.

Page 2 of 2

HOSPITALITY RELATED SYSTEM PARAMETERS

Time of Scheduled Wakeup Activity Report: _____

Time of Scheduled Wakeup Summary Report: _____

Time of Scheduled Emergency Access Activity Report: _____

Announcement Type: external

Auxiliary Board For Announcement: _____

Length of Time To Remain Connected To Announcement: _____

Extension To Receive Failed Wakeup LWC Messages: _____

Routing Extension On Unavailable Voice Synthesis: _____

Display Room Information in Call Display? n

SCREEN 6-60. Hospitality-Related System Parameters Form (Page 2)—Example Only

Implementation Note:

This is Page 2 when the Announcement Type field is “external.” The Auxiliary Board For Announcement field must be completed if “external” is entered as the Announcement Type.

Hunt Group

Purpose

Allows calls to be answered by users (that is, agents) at a pre-designated group of terminals or devices.

This form is used to create a Hunt Group that is identified by a Hunt Group number from 1 through 99. Users assigned to a Hunt Group are identified by their extension number. Up to 200 users can be assigned to a Hunt Group. Note that if the Hospitality Parameters Reduction option is enabled on the System-Parameters Customer-Options form; only five (maximum) Hunt Groups may be assigned.

Several different hunt group forms can be used to implement a hunt group and its associated features such as ACD and Hunt Group Queuing. Look at the various hunt group forms and choose the forms that can be used to implement your hunt group requirements.

The System checks for the busy or idle status of extension numbers in the hunt group when answering calls. A UCD type hunt group selects the “most idle” extension in the group when answering a new call. A DDC type hunt group selects the first available extension (in the administered sequence) when answering a new call.

Once the forms have been chosen, review the following instructions and use them for the fields that appear on the forms. The instructions listed below describe all the fields that can be used; however, some of the fields may not appear on the forms you selected. Implementation Notes at the bottom of the screen form examples lists the field entries required to obtain the associated form.

Note that vector controlled splits (that is, ACD hunt group with vector= “y”) maybe called directly via the split extension (instead of calling a VDN mapped to a vector that will terminate the call to a vector controlled split); however, the calls will not receive any announcements, be forwarded, redirect to coverage, or intraflow/interflow to another hunt group.

Administration Commands

The following administration commands can be used to access the Hunt Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*	
Without Hospitality Parameter Reduction Feature	add	hunt-group	1-99 (or 'next')
	change	hunt-group	1-99
	display	hunt-group	1-99 ['print' or 'schedule']
	list	hunt-group	['print' or 'schedule']
	remove	hunt-group	1-99
With Hospitality Parameter Reduction Feature	add	hunt-group	1-5 (or 'next')
	change	hunt-group	1-5
	display	hunt-group	1-5 ['print' or 'schedule']
	list	hunt-group	['print' or 'schedule']
	remove	hunt-group	1-5

- Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

- **Group Number**— Enter a hunt group number from 1 through 99 when completing a paper form (only five Hunt Groups may be assigned if the Hospitality Parameters Reduction option is enabled on the System-Parameters Customer-Options form). Note that the CMS Release 3 software (required for G3i) can measure up to 99 hunt groups and Group Numbering restrictions required by previous releases of the software no longer apply. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Extension**— Enter an unused extension number (1 through 5 digits) to be assigned to the hunt group.
- **Group Type**— Enter the type of hunt group: "ucd" or "ddc." Enter "ucd" if the hunt group has an AUDIX or Message Server Adjunct message center. Also, "ucd" is required when supporting a vendor-supplied outbound call management system and when the "Controlling Adjunct" field is administered as "asai" or "bx.25." Default is "ucd."
- **Group Name**— Enter a 15-character string that uniquely identifies the group, for example, "parts dept," "purchasing," or "sales dept."
- **Coverage Path**— Enter a coverage path number from 1 through 600. This assigns a coverage path for the Hunt Group. The coverage path is assigned using the Call Coverage Path form. Valid entries are 1 through 600 or leave blank.
- **COR**— Enter the COR number from 0 through 63 that reflects the desired restriction for the hunt group. If this is a hunt group supporting the AUDIX in a DCS feature, the CORs on the Hunt Group form on each switch must be the same. Default is "1."
- **Security Code**— Enter a 4-digit security code (password) used for the Demand Print feature. Valid entries are a 4-digit security code or leave blank.
- **Message Center**— Enter the type of message center the hunt group connects to. Allowable entries are "msa" (Message Server Adjunct), "rem-audix" (DCS feature allowing AUDIX to be located on another switch), or "audix" (for AUDIX located on this switch). Entering "none" indicates the hunt group does not serve as a message center hunt

group. Default is “none.” Only one hunt group in the System may be administered as rosa, one as rem-audix, and one as audix. For a hunt group serving as a split for a vendor-supplied outbound call management system, the typical entry is “none.”

- **ACD**— Enter “y” if the hunt group will function as an ACD split. AUDIX and “msa” hunt groups may function as ACD splits. This field cannot be completed if the “ACD” option is not enabled on the System-Parameters Customer-Options form. Enter “n” if this feature is not desired, even though ACD is enabled on the System-Parameters Customer-Options form. When the hunt group is assigned as an ACD split, the hunt group members will serve as ACD agents. The agents in this split are allowed to log in and receive ACD split calls. If AUDIX is used as the hunt group message center, enter “y” to have the ACD CMS provide AUDIX traffic measurements. If this hunt group is on a remote switch using the AUDIX in a DCS feature, enter “n” in this field.
- **Queue**— Enter “y” if the hunt group will be served by a queue; otherwise, enter “n.” Default is “n.”

The next **seven** fields apply if Queue is “y.”

1. **Queue Length**— Enter the maximum number of calls (1 through 200) that can be in the queue at the same time. This field must have an entry when Queue is “y.” For vendor-supplied outbound call management splits, a short queue length should be assigned and coordinated with the outbound call management adjunct administration.
2. **Calls Warning Threshold**— Enter the number of calls that can be queued before the System flashes the queue status (feature buttons assigned on agents voice terminals) and the optional Auxiliary Queue Call Warning Threshold lamp assigned to the split. These lamps are lighted steadily when at least 1 call is in queue and the threshold has not yet been reached. Valid entries are a number from 1 through 200 and must be less than or equal to the queue length or leave blank. This field must not be left blank if the Calls Warning Port field is assigned a port number.
3. **Calls Warning Port**— Enter the port number assigned to connect the optional external Auxiliary Queue Call Warning Threshold lamp that will flash when the number of calls in queue has exceeded the queue warning threshold (assigned in the Calls Warning Threshold field). Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 16). This port is assigned to an Analog Line circuit pack.
4. **Time Warning Threshold**— Enter the time in seconds from 0 through 999 that a call can remain in the queue before the System flashes the Queue status lamps (feature buttons assigned members voice terminals) and the Auxiliary Queue Time Warning lamp assigned to this split. An entry of “0” provides a warning whenever a call is queued. Valid entries are 0 through 999 or leave blank.

5. **Time Warning Port**— Enter the port number assigned to the Auxiliary Queue Time Warning lamp that flashes when the time entered in the Time Warning Threshold field has been reached by a call in queue. Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 16). This port is assigned to an Analog Line circuit pack.
 6. **First Announcement Extension**— Enter a recorded announcement extension number or leave blank. This is the announcement the caller will receive after being in the queue for the time interval specified in the First Announcement Delay field. If the call hasn't been answered after the announcement, the caller will hear music (only for first announcement) if Music-on-Hold is provided or ringing for as long as it remains in the queue. Leaving this field blank indicates there will be no announcement.
 7. **First Announcement Delay (sec)**— Enter the number of seconds from 0 through 99 that a call can remain in queue before the associated first announcement is given the calling party. The call retains its place in the queue while the caller is listening to the recorded announcement. If the call hasn't been answered after the announcement, the caller will hear music (for first announcement only) if Music-on-Hold is provided or ringing for as long as the call remains in queue. When "0" is entered, the first announcement is provided immediately to the caller (not recommended for outbound call management splits). This value is automatically set to "0" if there is no queue. This field must be blank if there is no first announcement.
- **Night Service Destination**— Enter the destination where calls to this ACD split will redirect when the split is in the night service mode. Allowable entries are an assigned extension number (can be a VDN extension), 0 (attendant), or leave blank. Note that this field is not supported when the Controlling Adjunct field entry is "bx.25."
 - **ISDN Caller Disp**— Enter "grp-name" or "mbr-name" to specify whether the hunt group name or member name, respectively, will be sent to the originating user. This field is required if the ISDN-PRI option on the System-Parameters Customer-Options form is enabled. If ISDN-PRI is not enabled, this field must be blank.
 - **Audix Extension**— This field is only displayed if the Message Center field is "rem-audix." Enter a valid Uniform Dial Plan (UDP) extension (4 to 5 digits) that identifies the AUDIX extension number on the host switch that will be used as the message center for this hunt group (supports the AUDIX In A DCS feature).

The next **four** fields are displayed if Queue is "y" and ACD is "y."

1. **Inflow Threshold**— Enter the number of seconds from 0 through 999 that a call can remain in the queue before no more calls will be accepted by the queue. If "0" is entered, a call will be redirected to this split only if there is an available agent. Valid entries are 0 through 999.

2. **Second Announcement Extension**— Enter the extension number assigned to a recorded announcement or leave blank. Leaving the field blank indicates that there is no second announcement. It is recommended that if this split or hunt group is a coverage point for another split, that this delay should not be more than 15 seconds.
3. **Second Announcement Delay (sec)**— Enter the time in seconds from 1 through 99 before the call in the queue receives second recorded announcement or that the second announcement is repeated. Leave blank if there is no second announcement.
4. **Second Announcement Recurring**— Enter “y” to have the second announcement repeated; otherwise, enter “n.” Leave blank if there is no second announcement.

The next four fields are displayed if ACD is “y.”

1. **Measured**— Enter “internal” to have change of state messages for the ACD split measured by the BCMS (internal to switch) and enter “external” to have measurements made by the 3B CMS (external to switch). Enter “both” to have data sent to both systems for measurement reports. Enter “none” if measurement reports for this hunt group is not required. Default is “none.” Note that all bx.25 controlled splits (Controlling Adjunct field is “bx.25”) must have the same entry in this field.
2. **Supervisor Extension**— Enter the extension number (may not be a VDN number) of the ACD split supervisor that agents can dial to request assistance.
3. **Priority On Intraflow**— Enter “y” if calls intra-flowing from this split to a covering split will be given priority over other calls waiting in the covering split’s queue. Default is “n.”
4. **Controlling Adjunct**— Displayed when the ACD field is “y.” Enter “none” to indicate that members of the split or hunt group are not controlled by an adjunct processor. When set to “asai” or “bx.25,” all agent logins are controlled by an associated adjunct and logged-in agents can only use their data terminal keyboards (that is, locked out from using their associated voice terminals); otherwise, enter “none.” If the controlling adjunct is a CONVERSANT voice system (requires an ASAI link), then enter “asai” in this field. (The ASAI option must be enabled on the System-Parameters Customer-Option form for CallVisor ASAI capability.) Valid entries are “asai,” “bx.25,” or “none.”
 - **ASAI Link Extension**— Displayed when Controlling Adjunct field is “asai.” Enter the appropriate ASAI Link extension. (See Adjunct/Switch Applications Interface Link information elsewhere in this chapter.) Field may not be blank. Note that “asai” and “bx.25” interfaces cannot both be provided on the switch. Only one of the interface types can be administered.
 - **Forced Entry of Stroke Counts or Call Word Codes**— This field is only displayed when the ACD field is “y” and the Controlling Adjunct field is set to “none.” Enter “y” if either a Stroke Count or Call Work Code must be entered for each call answered by an agent when in the Manual-In mode.
 - **Vector**— Enter “y” to indicate that this hunt group will be vector controlled. The Vectoring-Basic option must be enabled on the System-Parameters Customer-Option form before “y” can be entered in the field. Valid entries are “y” or “n.” Default is “n.” (See example screen forms for fields that are displayed when “y” is entered in this field.)

Pages 2 through 6 Of the Form

- **Group Number**— Display-only field
- **Group Extension**— Display-only field
- **Group Type**— Display-only field
- **Ext**— Display-only field if the Controlling Adjunct field is “y.” Controlled Agent extensions must be entered on the Adjunct Controlled Agent Table form. For Controlling Adjunct = “n,” enter the extension number associated with a member in the Hunt Group or with an associated data module. The extension may not be a VDN. The data module cannot be a member of an ACD split.
- **Name**— Make no entry, this is a display-only field. The name is assigned to the above extension number when it is administered in the System.

Page 1 of 6

HUNT GROUP

Group Number: _	Group Extension: ____	Group Type: <u>ucd</u>
Group Name: _____	Coverage Path: _	COR : <u>1</u>
Security Code: ____	Message Center: <u>none</u>	ACD? <u>n</u>
Queue? <u>n</u>	Night Service Destination: ____	Vector? <u>n</u>
ISDN Caller Disp: _____		

SCREEN 6-61. Hunt Group Form (Page 1)—Example Only

Implementation Note:

This is Page 1 when the ACD, Queue, and Vector fields are “n.”

Page 1 of 6

HUNT GROUP

Group Number: _ Group Extension: ____ Group Type: ucd
 Group Name: _____ coverage Path: _ COR: 1
 Security Code: _ Message Center: none ACD? n
 Queue? y Night Service Destination: _ Vector? n

ISDN Caller Disp: _____

Queue Length: 1
 Calls Warning Threshold: _ Calls Warning Port: _
 Time Warning Threshold: _ Time Warning Port: _
 First Announcement Extension: _ First Announcement Delay (sec): _

SCREEN 6-62. Hunt Group Form (Page 1)—Example Only**Implementation Note:**

This is Page 1 when the Queue field is “y” and the ACD and Vector fields are “n.”

Page 1 of 6

HUNT GROUP

Group Number: _ Group Extension: _ Group Type: ucd
 Group Name: _____ coverage Path: _ COR: 1
 Security Code: _____ Message Center: none ACD? y
 Queue? n Night Service Destination: _ Vector? n

ISDN Caller Disp: _____

Measured? n Supervisor Extension: _
 Priority On Intraflow? n
 Controlling Adjunct? none
 First Ann. Extension: _
 Forced Entry of Stroke Count or Call Work Code? n

SCREEN 6-63. Hunt Group Form (Page 1)—Example Only**Implementation Note:**

This is Page 1 when the Queue and Vector fields are “n” and the ACD field is “y.”

Page 1 of 6

HUNT GROUP

Group Number: _	Group Extension: _	Group Type: <u>ucd</u>
Group Name: _____	Coverage Path: _	COR: <u>1</u>
Security Code: _____	Message Center: <u>none</u>	ACD? <u>y</u>
Queue? <u>y</u>	Night Service Destination: _	Vector? <u>n</u>
ISDN Caller Disp: _____		
Measured? <u>none</u>	Supervisor Extension: _	
Priority On Intraflow? <u>n</u>	Inflow Threshold: _	
Controlling Adjunct? <u>none</u>		
Queue Length: <u>1</u>		
Calls Warning Threshold: _____	Calls Warning Port: _____	
Time Warning Threshold: _____	Time Warning Port: _____	
First Ann. Extension: _____	First Announcement Delay (sec): _	
Second Announcement Extension: _____	Second Announcement Delay (sec): _	
Forced Entry of Stroke Count or Call Work Code? <u>n</u>		

SCREEN 6-64. Hunt Group Form (Page 1)—Example Only

Implementation Note:

This is Page 1 when the Queue fields is "y" and the ACD and Vector fields are "n."

Page 1 of 6

HUNT GROUP

Group Number: _	Group Extension: _	Group Type: <u>ucd</u>
Group Name: _____	Message Center: <u>none</u>	ACD? <u>n</u>
Security Code: _____		COR: <u>1</u>
Queue? <u>n</u>		Vector? <u>y</u>
ISDN Caller Disp: _____		

SCREEN 6-65. Hunt Group Form (Page 1)—Example Only

Implementation Note:

This is Page 1 when the Vector field is "y" and the ACD and Queue fields are "n."

Page 1 of 6

HUNT GROUP

Group Number: _	Group Extension: ____	Group Type: <u>ucd</u>
Group Name: _____	Coverage Path: _	COR: <u>1</u>
Security Code: ____	Message Center: <u>rem-audix</u>	ACD? <u>n</u>
Queue? <u>n</u>	Night Service Destination: ____	Vector? <u>n</u>
ISDN Caller Disp: ____	Audix Extension: ____	

SCREEN 6-66. Hunt Group Form (Page 1)—Example Only

Implementation Note:

This is Page 1 when the Queue and ACD fields are “n” and Message Center field is “rem-audix.”

Page 1 of 6

HUNT GROUP

Group Number: ____	Group Extension: ____	Group Type: <u>ucd</u>
Group Name: _____	Message Center: <u>none</u>	ACD? <u>y</u>
Queue? <u>n</u>		Vector? <u>n</u>
Security Code: ____	Night Service Destination: ____	COR: <u>1</u>
ISDN Caller Disp: ____	Coverage Path: _	
Measured? <u>n</u>	Supervisor Extension? ____	
Priority on Intraflow? <u>y</u>		
Controlling Adjunct: <u>asai</u>	ASAI Link Extension: ____	
First Announcement Extension: ____		

SCREEN 6-67. Hunt Group Form (Page 1)—Example Only

Implementation Note:

This is Page 1 when Controlling Adjunct is “asai” and the Vector and Queue fields are “n” and the ACD field is “y.”

Page 1 of 6

HUNT GROUP

Group Number: —	Group Extension: —	Group Type: <u>ucd</u>
Group Name: _____	Message Center: <u>none</u>	ACD? <u>y</u>
Queue? <u>y</u>		Vector? <u>y</u>
Security Code: _____		COR: 1
ISDN Caller Disp: _____		
Measured? <u>n</u>	Supervisor Extension? _____	
Controlling Adjunct: <u>asai</u>	ASAI Link Extension: _____	
Queue Length: <u>1</u>		
Calls Warning Threshold: —	Calls Warning Port: _____	
Time Warning Threshold: _____	Time Warning Port: _____	

SCREEN 6-68. Hunt Group Form (Page 1)—Example Only

Implementation Note:

This is Page 1 when Controlling Adjunct is “asai” and the Vector, Queue, and ACD fields are “y.”

Page 2 of 6

HUNT GROUP

Group Number: ____

Group Extension: ____

Group Type: ____

Group	Member	Assignments				
	Ext	Name	Ext	Name	Ext	Name
	1: ____		14: ____		27: ____	
	2: ____		15: ____		28: ____	
	3: ____		16: ____		29: ____	
	4: ____		17: ____		30: ____	
	5: ____		18: ____		31: ____	
	6: ____		19: ____		32: ____	
	7: ____		20: ____		33: ____	
	8: ____		21: ____		34: ____	
	9: ____		22: ____		35: ____	
	10: ____		23: ____		36: ____	
	11: ____		24: ____		37: ____	
	12: ____		25: ____		38: ____	
	13: ____		26: ____		39: ____	
					40: ____	

SCREEN 6-69. Hunt Group Form (Page 2)—Example Only

(To reduce repetition, Pages 3 through 5 are not shown)

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HUNT GROUP

Group Number: ____ Group Extension: ____ Group Type: ____

Group	Member	Assignments				
	Ext	Name	Ext	Name	Ext	Name
161:	____		174:	____	187:	____
162:	____		175:	____	188:	____
163:	____		176:	____	189:	____
164:	____		177:	____	190:	____
165:	____		178:	____	191:	____
166:	____		179:	____	192:	____
167:	____		180:	____	193:	____
168:	____		181:	____	194:	____
169:	____		182:	____	195:	____
170:	____		183:	____	196:	____
171:	____		184:	____	197:	____
172:	____		185:	____	198:	____
173:	____		186:	____	199:	____
					200:	____

SCREEN 6-70. Hunt Group Form (Page 6)—Example Only

Intercom Group

Purpose

The Automatic and Dial Intercom features are available to users whose voice terminals have intercom feature button assignments. Members of an intercom group may have Dial Intercom, Automatic Intercom, both, or neither with respect to placing an Intercom call. Single-line voice terminals, if a member of the group, can receive an Intercom call, but cannot place an Intercom call.

This form is used to specify the group members, not the type of Intercom. (The intercom type and associated feature buttons are assigned to multi-appearance voice terminals using the multi-appearance voice terminal forms.)

Up to 32 Dial Intercom groups can be assigned. A group can have up to 32 members. The total number of Intercom group members allowed in the System is 128.

Administration Commands

The following administration commands can be used to access the Intercom Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	intercom-group	1-32 (or 'next')
change	intercom-group	1-32
display	intercom-group	1-32 ['print' or 'schedule']
list	intercom-group	['print' or 'schedule']
remove	intercom-group	1-32

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word may be entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Pages 1 and 2 of the Form

- **Group Number**— Enter a number from 1 through 32 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Length of Dial Code**— On Page 1, enter "1" or "2." This is the number of digits that must be dialed to access someone in the group. Enter "1" if group members are less than 10 or "2" if group members are 10 or more. Default is "1." (Page 2 is a display-only field.)
- **Ext**— Enter the extension number of each member of the group. Note that VDN extensions are not allowed.

- **DC**— Enter a 1- or 2-digit code. The number of digits entered depends on the number assigned in the Length of Dial Code field. The digit 0 may not be used as the leading digit, and this field cannot be left blank. This is the code that must be dialed to access that group member.
- **Name**— Make no entry. The name is assigned when the member's associated extension was administered.

Page 1 of 2

INTERCOM GROUP

Group Number: _
Length of Dial Code: 1

GROUP	MEMBER	ASSIGNMENTS				
	Ext	DC	Name	Ext	DC	Name
	1: _____	—		9: _____	—	
	2: _____	—		10: _____	—	
	3: _____	—		11: _____	—	
	4: _____	—		12: _____	—	
	5: _____	—		13: _____	—	
	6: _____	—		14: _____	—	
	7: _____	—		15: _____	—	
	8: _____	—		16: _____	—	

SCREEN 6-71. Intercom Group Form (Page 1)—Example Only

Page 2 of 2

INTERCOM GROUP

Group Number: _
Length of Dial Code: 1

GROUP MEMBER ASSIGNMENTS

	Ext	DC	Name		Ext	DC	Name
17:	_____	—		25:	_____	—	
18:	_____	—		26:	_____	—	
19:	_____	—		27:	_____	—	
20:	_____	—		28:	_____	—	
21:	_____	—		29:	_____	—	
22:	_____	—		30:	_____	—	
23:	_____	—		31:	_____	—	
24:	_____	—		32:	_____	—	

SCREEN 6-72. Intercom Group Form (Page 2)—Example Only

Interface Links

Purpose

This form is used to identify, describe, and enable Interface Links. There is one Interface Link form per System. Interface Links provide a physical interface between the System and the other nodes in a DCS, ISDN, a Message Server Adjunct, a CMS, a vendor-supplied outbound call management system, an ISDN Gateway adjunct (supports CPN/BN), or an AUDIX.

Administration Commands

The following administration commands can be used to access the Interface Links form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	communication-interface	links
display	communication-interface	links ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **Link**— This is a display-only field. Indicates the physical interface link number (1 through 8 for multi-carrier cabinet systems and 1 through 4 for single-carrier cabinet systems) that connects to another node in a DCS or ISDN network, a Message Server, CMS, a vendor-supplied outbound call management system, ISDN Gateway, or AUDIX. For multi-carrier cabinets, links 1 through 4 are located in a Processor Interface circuit pack mounted in Control Carrier A, Links 5 through 8 are located in a second Processor interface circuit pack mounted in Control Carrier A.
- **Enable**— Enter “y” to enable the link. An entry of “n” suppresses any message flow over the link. Default is “n.”

Note that when administering the Interface Links form, all fields may be initially entered except the Enable field (must be “n”). After completing and administering the associated Processor Interface Data Module and Processor Channel Assignment forms for all links, recall the Interface Links form (via the change command) and then enable the appropriate links by entering “y” in the enable fields.

- **Est Conn**— Enter “y” if the System is responsible for any part of the call setup required for the link between the System and the far-end data module.

If the physical link is through a pair of MPDMs or MTDMs, then each switch terminating the link must set up a connection between its Processor Interface Data Module and MPDM/MTDM.

If the physical link is over a DS1 interface, it is possible (except for ISDN signaling links) for one switch to set up the entire connection (see Destination below). In this case, the other switch will not initiate any part of the connection between the two endpoints. Typi-

cally when using a DS1 interface, the Enable field will be set to "y" on both the originating and terminating switches but only one link between the two switches will have the Est Conn field set to "y." The originating switch is defined as having the Est Conn field set to "y."

If the link is to be used for ISDN signaling, enter "y."

- **PI Ext**— This is the data extension assigned on the Processor Interface Data Module form. This field is a display-only. The System automatically assigns the extension number to this field when the Processor Interface data module is administered in System translations. If the data module has not been administered, this field will be blank.
- **Prot**— Enter the protocol type that is to be established on the link. Allowable entries are "BX.25" and "ISDN." Default is "BX.25."
- **Destination**— Leave blank if the System is not involved in establishing any part of the connection (may not be a VDN extension).

For BX.25 links [allowable entries are extension number, TAC (for DS1 data link), or "eia" (link 1 only)]:

- Enter the extension number in the Digits field that is used to set up a connection or part of a connection between the local and far-end data modules for the link.
- If the BX.25 link is through a pair of PDMs or TDMs, then the extension of the PDM/TDM is used as the destination address.
- If the BX.25 link is through a DS1 interface and the local switch is establishing the connection, enter the TAC if the far-end trunk group is administered with an incoming destination (for example, the far-end data module extension). Otherwise, enter the TAC followed by the far-end data module extension.

For ISDN-PRI links:

- Enter the TN767 DS1 circuit pack address in the Brd field that has been previously administered as using ISDN signaling. If channel 24 on the DS1 circuit pack is used for Facility Associated Signaling, it cannot be administered as a member of the trunk group. A DS1 circuit pack address can only appear once as a destination address on the form. Allowable entries are the 4-character DS1 circuit pack location. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type).
- **DTE/DCE**— Enter "DTE" or "DCE" to define the type of interface. This field is only administrable if the Prot field is "BX.25." If one endpoint of a link is DTE, then the other must be DCE, and vice versa. The assignments must be coordinated on a network-wide level. Endpoint Switch Links are generally DTE and Tandem links are generally DCE. If both endpoints are of the same type (that is, endpoints or tandem), then the assignment of which is DTE and which is DCE is arbitrary. Typically, when using a DS1 interface, the originating switch should be administered as "DTE" and the terminating switch as "DCE." Default is DTE. For an outbound call management system interface, enter "DCE."

- **Identification**— Enter a 15-character name for the link. It is used for identification purposes only. It may be used to identify the destination machine or the field may be left blank.

Page 1 of 1

INTERFACE LINKS

Link	Enable	Est Corm	PI Ext	Prot	Destination Digits	Brd	DTE/ DCE	Identification
1:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____
2:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____
3:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____
4:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____
5:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____
6:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____
7:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____
8:	<u>n</u>	_____	_____	<u>BX.25</u>	_____	_____	<u>DTE</u>	_____

SCREEN 6-73. Interface Links Form—Example Only

Inter-Exchange Carrier (IXC) Codes

Purpose

The purpose of entering Inter-Exchange Carrier (IXC) codes on this form is to allow identification of the IXC in the SMDR record.

Administration Commands

The following administration commands can be used to access the IXC codes form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	ixc-codes	—
display	ixc-codes	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **IXC Access Number**— Enter the digits dialed or inserted by AAR/ARS into the outputpulsed digit string to gain access to the inter-exchange carrier. No duplicate access numbers are allowed in the table.
- **IXC Name**— Enter 0 through 15 characters to identify the IXC. This description is for information purposes only.

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INTER-EXCHANGE CARRIER CODES

IXC Codes Assignments (Enter UP to 15)

SMDR IXC Code	IXC Access Number	IXC Name	SMDR IXC Code	IXC Access Number	IXC Name
1.	_____	_____	9.	_____	_____
2.	_____	_____	10.	_____	_____
3.	_____	_____	11.	_____	_____
4.	_____	_____	12.	_____	_____
5.	_____	_____	13.	_____	_____
6.	_____	_____	14.	_____	_____
7.	_____	_____	15.	_____	_____
8.	_____	_____			

SCREEN 6-74. Inter-Exchange Carrier Codes Form—Example Only

Intra-switch SMDR

Purpose

The purpose of this form is to administer extensions for which Intra-switch SMDR is to be enabled. Attendants are not allowed to be optioned for the Intra-switch SMDR feature. To add the Intra-switch SMDR feature to additional extensions, add the extension(s) to this form.

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INTRA-SWITCH SMDR

ASSIGNED MEMBERS

1: 72447	18: _____	35: _____	52: _____	69: _____	86: _____
2: 72448	19: _____	36: _____	53: _____	70: _____	87: _____
3: _____	20: _____	37: _____	54: _____	71: _____	88: _____
4: _____	21: _____	38: _____	55: _____	72: _____	89: _____
5: _____	22: _____	39: _____	56: _____	73: _____	90: _____
6: _____	23: _____	40: _____	57: _____	74: _____	91: _____
7: _____	24: _____	41: _____	58: _____	75: _____	92: _____
8: _____	25: _____	42: _____	59: _____	76: _____	93: _____
9: _____	26: _____	43: _____	60: _____	77: _____	94: _____
10: _____	27: _____	44: _____	61: _____	78: _____	95: _____
11: _____	28: _____	45: _____	62: _____	79: _____	96: _____
12: _____	29: _____	46: _____	63: _____	80: _____	97: _____
13: _____	30: _____	47: _____	64: _____	81: _____	98: _____
14: _____	31: _____	48: _____	65: _____	82: _____	99: _____
15: _____	32: _____	49: _____	66: _____	83: _____	100: _____
16: _____	33: _____	50: _____	67: _____	84: _____	
17: _____	34: _____	51: _____	68: _____	85: _____	

SCREEN 6-75. Intra-switch SMDR Form

Implementation Note:

A maximum of 100 (non-ASAI) extensions maybe optioned.

The **change intra-switch-smdr** and **display intra-switchsmdr** commands with this feature.

Listed Directory Numbers

Purpose

This form allows up to eight DID numbers to be treated as public LDNs. When one of these numbers is direct inward dialed, the calling party is routed to the attendant. The attendant display indicates a Listed Directory Number call and the name associated with the dialed extension. Refer to the Multiple Listed Directory Numbers feature in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201, for additional information.

Administration Commands

The following administration commands can be used to access the Listed Directory Numbers form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	listed-directory-numbers	—
display	listed-directory-numbers	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

- **Ext**— Enter a valid unassigned extension number (1 to 5 digits).
- **Name**— Enter a name used to identify the Listed Directory Number. Up through 15 alphanumeric characters may be used.
- **Night Destination**— Enter the valid assigned extension number (may be a night service extension, a recorded announcement extension, a VDN, an individual attendant extension, or an AUDIX hunt group extension) that will receive calls to these listed numbers when the System is in the Night Service mode. Enter 1 to 5 digits.

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LISTED DIRECTORY NUMBERS

Ext	Name	Ext	Name
1: _____	_____	5: _____	_____
2: _____	_____	6: _____	_____
3: _____	_____	7: _____	_____
4: _____	_____	8: _____	_____

Night Destination: _____

SCREEN 6-76. Listed Directory Number Form—Example Only

Loudspeaker Paging and Code Calling Access

Purpose

These forms are used to implement Loudspeaker Paging, Loudspeaker Paging—Deluxe, and Code Calling Access. The Loudspeaker Paging Access form contains the fields required to assign zone (speaker location) information for the Loudspeaker Paging, Loudspeaker Paging—Deluxe, and Code Calling Access features.

The Code Calling IDs form is used to assign extension numbers to code calling identification numbers. As many as 125 three-digit chime codes can be provided. Only one extension number can be assigned to each chime code. The System translates the ID number associated with a code calling extension to a chime code and then plays the code over a zone loudspeaker as assigned on the Loudspeaker Paging form.

Administration Commands

The following administration commands can be used to access the Loudspeaker Paging Access form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	paging loudspeaker	—
display	paging loudspeaker	['print' or 'schedule']
change	paging code-calling-ids	—
display	paging code-calling-ids	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

Page 1 of the Loudspeaker Paging Access Form

- **SMDR**— Enter “y” to indicate if you want SMDR data collection on the paging ports; otherwise, enter “n.” Default is “y.”

- **Voice Paging Timeout (sec)**— Enter from 10 to 600 seconds. This is the length of time the user can be connected to the paging equipment. After the time has elapsed, the call is disconnected. Analyze the typical messages you expect to broadcast; time them; then add another 4 to 5 seconds.
- **Code Calling Playing Cycle**— Enter a number from 1 through 3 to indicate the number of times the code calling identification will play. Analyze who your code calling users are and whether they are likely to hear the code chime the first time.
- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 16). Each assigned paging zone requires a port on a TN763 Auxiliary Line circuit pack.

If a port is not assigned to a zone, then the SMDR, Voice Paging Timeout, and Code Calling Playing Cycles will be set to the System default values when the System is administered.

- **Voice Paging—TAC**— Enter a 1-, 2-, or 3-digit TAC that corresponds with the Dial Plan Record. One TAC must be assigned for each zone. This is the code you will dial to access the zone (the physical location of the loudspeakers). TAC for the field labeled **ALL** activates all speakers in the nine zones when that access code is dialed. These codes can be assigned to Abbreviated Dialing feature buttons on user stations or to the DTGS buttons on the attendant consoles for easy activation by attendants. A different TAC must be assigned for each paging zone.
- **Voice Paging—COR**— Enter the desired number from 0 through 63. Each TAC must be assigned a COR that reflects the desired restriction for Loudspeaker Paging.
- **Code Calling—TAC**— Enter a 1-, 2-, or 3-digit TAC that corresponds with the Dial Plan Record. These codes can be assigned to Abbreviated Dialing feature buttons on user stations or to the DTGS buttons on the attendant console for direct access to the zone by the attendant. A different TAC must be assigned for each paging zone.
- **Code Calling—COR**— Enter the desired number from 0 through 63. Each TAC must be assigned a COR that reflects the desired restriction for Code Calling.
- **Location**— Enter the location where the loudspeakers are installed, for example, conference room A, warehouse, storeroom. Default is “PAGING.”

Pages 1 and 2 of the Code Calling IDs Form

Make assignments as required for the following fields on each page of the form:

- **Ext**— Enter an assigned or unassigned extension number (may not be a VDN extension). The extension number, when dialed using the Code Calling Access feature, will cause an associated chime signal to be broadcast via an associated zone loudspeaker. Leave this field blank if you do not want to assign a code.

Page 1 of 1

LOUDSPEAKER PAGING ACCESS

SMDR? y

Voice Paging Timeout (sec):

Code Calling Playing Cycles:

PAGING PORT ASSIGNMENTS

Zone	Port	Voice TAC	Paging COR	Code TAC	Calling COR	Location
1:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
2:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
3:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
4:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
5:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
6:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
7:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
8:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
9:	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	<u>PAGING</u>
ALL :	<u> </u>	<u> </u>	<u>—</u>	<u> </u>	<u>—</u>	

SCREEN 6-77. Loudspeaker Paging Access Form—Example Only

Page 1 of 2

CODE CALLING IDS

ID ASSIGNMENTS

Id	Ext	Id	Ext	Id	Ext	Id	Ext	Id	Ext
111:	_____	141:	_____	221:	_____	251:	_____	331:	_____
112:	_____	142:	_____	222:	_____	252:	_____	332:	_____
113:	_____	143:	_____	223:	_____	253:	_____	333:	_____
114:	_____	144:	_____	224:	_____	254:	_____	334:	_____
115:	_____	145:	_____	225:	_____	255:	_____	335:	_____
121:	_____	151:	_____	231:	_____	311:	_____	341:	_____
122:	_____	152:	_____	232:	_____	312:	_____	342:	_____
123:	_____	153:	_____	233:	_____	313:	_____	343:	_____
124:	_____	154:	_____	234:	_____	314:	_____	344:	_____
125:	_____	155:	_____	235:	_____	315:	_____	345:	_____
131:	_____	211:	_____	241:	_____	321:	_____	351:	_____
132:	_____	212:	_____	242:	_____	322:	_____	352:	_____
133:	_____	213:	_____	243:	_____	323:	_____	353:	_____
134:	_____	214:	_____	244:	_____	324:	_____	354:	_____
135:	_____	215:	_____	245:	_____	325:	_____	355:	_____

SCREEN 6-78. Code Calling IDs Form (Page 1)—Example Only

Page 2 of 2

CODE CALLING IDS

ID ASSIGNMENTS

Id	Ext	Id	Ext	Id	Ext	Id	Ext	Id	Ext
411:	_____	431:	_____	451:	_____	521:	_____	541:	_____
412:	_____	432:	_____	452:	_____	522:	_____	542:	_____
413:	_____	433:	_____	453:	_____	523:	_____	543:	_____
414:	_____	434:	_____	454:	_____	524:	_____	544:	_____
415:	_____	435:	_____	455:	_____	525:	_____	545:	_____
421:	_____	441:	_____	511:	_____	531:	_____	551:	_____
422:	_____	442:	_____	512:	_____	532:	_____	552:	_____
423:	_____	443:	_____	513:	_____	533:	_____	553:	_____
424:	_____	444:	_____	514:	_____	534:	_____	554:	_____
425:	_____	445:	_____	515:	_____	535:	_____	555:	_____

SCREEN 6-79. Code Calling IDs Form (Page 2)—Example Only

Modem Pool Group

Purpose

There are two types of conversion resources for Modem Pooling. The first type, an **integrated conversion resource**, is a circuit pack that emulates a Trunk Data Module connected to a 212A-type modem. Two conversion resources are on each circuit pack. Up to 160 conversion resources can be administered.

The second type, a **combined conversion resource**, is a separate Trunk Data Module and modem administered as a unit. The Trunk Data Module component of the conversion resource may be either a MTDM or 7400A Data Module and connects to a digital port using DCP; the modem connects to an analog port.

Administration Commands

The following administration commands can be used to access the Modem Pool Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	modem-pool num	[1-5]
change	modem-pool num	[1-5]
display	modem-pool num	[1-5] ['print' or 'schedule']
list	modem-pool num	['print' or 'remove']
remove	modern-pool num	[1-5]

* Brackets [] indicate the qualifier is optional.

Form Instructions:

Make assignments as required for the following fields on the form:

- **Group Number**— When completing a paper form, enter a number from 1 through 5. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Type**— Enter “integrated” or “combined.”
- **Receiver Responds to Remote Loop**— Enter “y” to allow far-end modem to put conversion resource into loop back mode. Default is “n.” (This field is enabled only when Group Type is “integrated.”)
- **Hold Time (min)**— Enter the maximum number of minutes (1 through 99) that a conversion resource in the group may be held while a call waits in a queue or reserved after Data Call Preindication. Default is “5.”
- **Send Space Disconnect**— Enter “y” to allow the conversion resource to send four seconds of space before disconnecting; otherwise, enter “n.” Default is “y.” (This field is enabled only when Group Type is “integrated.”)

- **Receive Space Disconnect**— Enter “y” to allow the conversion resource to disconnect after receiving 1.6 seconds of space; otherwise, enter “n.” Default is “y.” (This field is enabled only when Group Type is “integrated.”)
- **CF-CB Common**— Enter “y” to indicate that the CF and CB leads on the conversion resource are logically connected; otherwise, enter “n.” Default is “y.” (This field is enabled only when Group Type is “integrated.”)
- **Loss of Carrier Disconnect**— Enter “y” to permit conversion resource to disconnect if it detects a dropped carrier; otherwise, enter “n” (no). Default is “y.” (This field is enabled only when Group Type is “integrated.”)
- **Modem Name**— Enter a 1- to 6-alphanumeric character string to indicate the name of the modem pool. (This field is enabled only when Group Type is “combined.”)

The following fields (Speed, Duplex, and Synchronization) cannot be filled out for the “integrated” pooled modem forms but can be assigned on the “combined” pooled modem form. The integrated conversion resource will automatically adjust its speed and synchronization to the end-point it is connected to. In synchronous mode, the integrated modem pool can operate at 1200 baud. In asynchronous mode, it can operate at 300 or 1200 baud. Full-duplex operation is always used.

- **Speed**— Enter the communication speed in bits per second (LOW—0 to 300 blind sampled, 300, 1200, 2400, 4800, 9600, or 19200) of the conversion resources in the group. Enter 1 to 3 speeds separated by slashes (for example, 300/1200/2400) to indicate a maximum of three running speeds. Default is “LOW/300/1200.”
- **Duplex**— Enter “full” or “half” to indicate the duplex mode of the conversion resources in the group. Default is “full.”
- **Synchronization**— Enter “sync” or “async” to indicate the synchronization mode of the conversion resources in the group. Default is “async.”

Circuit Pack Assignments are optional on “integrated” conversion resource forms only.

- **Circuit Pack Location**— Enter the port associated with the conversion resource on the integrated modem pool board. Enter four characters to identify the port. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type) or (01 through 18 for single-carrier cabinets depending on cabinet type).

Port Pair Assignments are optional on “combined” pooled modem forms only.

- **Analog Digital**— Enter the port numbers of the modem— TDM pair in a conversion resource. Enter four characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type). Note that two port entries are required.

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MODEM POOL GROUP

Group Number: 1 Group Type: integrate
 Receiver Responds to Remote Loop? n Hold Time (rein): 5
 Send Space Disconnect? y Receive Space Disconnect? y
 CF-CB Common? y Loss of Carrier Disconnect? y
 Speed: LOW/300/1200 Duplex: full Synchronization: a/sync
 CIRCUIT PACK ASSIGNMENTS

Circuit Pack Location	Circuit Pack Location
1: _	9: _
2: _	10: _
3: _	11: _
4: _	12: _
5: _	13: _
6: _	14: _
7: _	15: _
8: _	16: _

SCREEN 6-80. Integrated Modem Pool Group Form—Example Only

Implementation Note

This is Page 1 of 1 when the Group Type field is "integrated."

Page 1 of 1

MODEM POOL GROUP

Group Number: _

Group Type: combined

Modem Name: ____

Hold Time (min): 5

Speed: LOW/300/1200

Duplex: full

Synchronization: async

PORT PAIR ASSIGNMENTS

Analog	Digital	Analog	Digital	Analog	Digital	Analog	Digital
1: ____	____	9: ____	____	17: ____	____	25: ____	____
2: ____	____	10: ____	____	18: ____	____	26: ____	____
3: ____	____	11: ____	____	19: ____	____	27: ____	____
4: ____	____	12: ____	____	20: ____	____	28: ____	____
5: ____	____	13: ____	____	21: ____	____	29: ____	____
6: ____	____	14: ____	____	22: ____	____	30: ____	____
7: ____	____	15: ____	____	23: ____	____	31: ____	____
8: ____	____	16: ____	____	24: ____	____	32: ____	____

SCREEN 6-81. Combined Modem Pool Group Form—Example Only

Implementation Note

This is Page 1 of 1 when the Group Type field is “combined.”

Pickup Groups

Purpose

This form is used to implement up to 800 call pickup groups with up to 50 extensions per group. A pickup group is a group of users authorized to answer calls to a voice terminal extension within that group of users. A voice terminal extension number can only belong to one pickup group. Up to 1600 members are allowed in the System.

Administration Commands

The following administration commands can be used to access the Pickup Group form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*	
Without Hospitality Parameter Reduction Feature	add	pickup-group	1-800 (or 'next')
	change	pickup-group	1-800
	display	pickup-group	1-800 ['print' or 'schedule']
	list	pickup-group	['print' or 'schedule']
	remove	pickup-group	1-800
With Hospitality Parameter Reduction Feature	add	pickup-group	1-5 (or 'next')
	change	pickup-group	1-5
	display	pickup-group	1-5 ['print' or 'schedule']
	list	pickup-group	['print' or 'schedule']
	remove	pickup-group	1-5

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Pages 1 and 2 of the Form

- **Group Number**— Enter a number from 1 through 800 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change. Note that if the Hospitality Parameters Reduction option is enabled on the System-Parameters Customer-Options form, only five (maximum) group numbers maybe assigned.
- **Ext**— Enter the extension number of each user in the group. Note that a VDN cannot be assigned to a Call Pickup group.
- **Name**— Make no entry. The name is assigned to the above extension number when the the users and their associated extensions were administered.

Page 1 of 2

PICKUP GROUP

Group Number: _

GROUP MEMBER ASSIGNMENTS

Ext	Name	Ext	Name
1: _____		14: _____	
2: _____		15: _____	
3: _____		16: _____	
4: _____		17: _____	
5: _____		18: _____	
6: _____		19: _____	
7: _____		20: _____	
8: _____		21: _____	
9: _____		22: _____	
10: _____		23: _____	
11: _____		24: _____	
12: _____		25: _____	
13: _____			

SCREEN 6-62. Pickup Group Form (Page 1)—Example Only

Page 2 of 2

PICKUP GROUP

Group Number: _

GROUP MEMBER ASSIGNMENTS

Ext	Name	Ext	Name
26: _____		39: _____	
27: _____		40: _____	
28: _____		41: _____	
29: _____		42: _____	
30: _____		43: _____	
31: _____		44: _____	
32: _____		45: _____	
33: _____		46: _____	
34: _____		47: _____	
35: _____		48: _____	
36: _____		49: _____	
37: _____		50: _____	
38: _____			

SCREEN 6-83. Pickup Group Form (Page 2)—Example Only

Processor Channel Assignment

Purpose

This form is used to assign up to 64 Processor Channels to the System's interface links.

Administration Commands

The following administration commands can be used to access the Processor Channel Assignment form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	communication-interface	processor channels
display	communication-interface	processor channels ['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Pages 1 through 4 of the Form

- **Proc Chan**— This field is display-only and indicates each of the 64 processor channels. It is recommended that channels one, two, three, four, and eight be reserved for MSA connectivity since the MSA uses fixed channel numbers. Channel 10 should be reserved for MIS and Channel 59 for AUDIX.
- **Appl**— Enter the type of application that connects to this processor channel. Valid entries are noted in the Entry column in the "Processor Channel Applications" table that follows. Note that MSA applications, if administered, must be assigned to freed processor and remote processor (MSA) channels (one, two, three, four, and eight, respectively) as shown on the table. Also note that when the MIS adjunct processor is a MSA, the Appl field must be "msamis." For MIS 3B adjunct processors, the Appl field is set to "mis." If the Appl field is administered as "isdn," then no other channels may use the interface link specified for this processor channel. A link used for ISDN-PRI cannot be multiplexed to provide other applications. When "OCM" is used, the associated interface link may be used to interface either a vendor-supplied outbound call management system adjunct or an ISDN Gateway adjunct (supports CPN/BN applications) but not both. If a processor channel is not assigned, leave this field blank.

TABLE 6-I. Processor Channel Applications

Appl. Entry	Processor Description	Channel	Priority
msamcs	MSA Message Center Service	1	high (h)
msahlwc	MSA High Priority Leave Word Calling	2	high (h)
msallwc	MSA Low Priority Leave Word Calling	3	low (l)
msaamwl	MSA Automatic Message Waiting Lamp	4	low (l)
msaclk	Switch/MSA Clock Synchronization	8	high (h)
dcs	DCS		high (h)
mis	MIS	10	low (l)
msamis	MSA/MIS	-	low (l)
audix	AUDIX	59	high (h)
isdn	ISDN-PRI	-	high
OCM	Outbound Call Management	-	high

- **Interface Link**— Enter a number from 1 through 8 for multi-carrier cabinets (1 through 4 for single-carrier cabinets) to identify the interface link/channel pair used to establish a connection to the remote machine. (This field and the Interface Chan field must be assigned as a pair or both left blank except when the Appl field is “isdn.”) This is the link number assigned on the Processor Interface Data Module form.
- **Interface Chan**— This field, together with the Interface Link field, identifies the link/channel pair that is associated with the local processor channel. Enter a number from 1 through 64 to identify the interface channel that is associated with the local processor channel. The Interface Link/Channel association establishes a network channel to the remote machine. (This field and the Interface Chan field must be assigned as a pair or both left blank except when the Appl field is “isdn.”) Valid entries are 1 through 84 or leave blank.

Once a Link/Channel Pair is assigned on the Processor Channel Assignments form, the pair cannot be assigned on the Hop Channel Assignments form (see Hop Channel Assignments—this chapter).

- **Priority**— Enter “h” (high) or “l” (low) to indicate the priority of this processor channel. High priority channels have precedence over the low priority channels. Assignments should be made based on the operational speed of the links and the number of hops in the network channel. Enter the appropriate priority (as per the “Processor Channel Applications” table).
- **Remote Proc Chan**— Cannot be assigned when the Appl field is “isdn.” Enter the processor channel number (1 through 84) of the remote switch that connects to the local processor channel. Valid entries are 1 through 64 or leave blank.
- **Machine-ID**— Enter the Machine ID number associated with the port if the Appl field is “dcs,” “audix,” or “ocm”; otherwise, leave this field blank. Machine-IDs are administered as part of the UDP. Valid entries are 1 through 99 or leave blank. When supporting AUDIX, the Machine ID must agree with the AUDIX field entry on the AUDIX Data Link form (part of AUDIX translations). Typically, with just one AUDIX, this entry is “1.”

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PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Appl.	Interface Link	Chan	Priority	Remote Proc Chan	Machine-ID
1:	_____	-	___	_____	___	___
2:	_____	-	___	_____	___	___
3:	_____	-	___	_____	___	___
4:	_____	-	___	_____	___	___
5:	_____	-	___	_____	___	___
6:	_____	-	___	_____	___	___
7:	_____	-	___	_____	___	___
8:	_____	-	___	_____	___	___
9:	_____	-	___	_____	___	___
10:	_____	-	___	_____	___	___
11:	_____	-	___	_____	___	___
12:	_____	-	___	_____	___	___
13:	_____	-	___	_____	___	___
14:	_____	-	___	_____	___	___
15:	_____	-	___	_____	___	___
16:	_____	-	___	_____	___	___

SCREEN 6-84 Processor Channel Assignment Form (Page 1)—Example Only

(To reduce repetition, Pages 2 through 3 are not shown).

PROCESSOR CHANNEL ASSIGNMENT

Proc Chan	Appl.	Interface		Priority	Remote Proc Chan	Machine-ID
		Link	Chan			
49:	_____	-	-	_____	_____	_____
50:	_____	-	-	_____	_____	_____
51:	_____	-	-	_____	_____	_____
52:	_____	-	-	_____	_____	_____
53:	_____	-	-	_____	_____	_____
54:	_____	-	-	_____	_____	_____
55:	_____	-	-	_____	_____	_____
56:	_____	-	-	_____	_____	_____
57:	_____	-	-	_____	_____	_____
58:	_____	-	-	_____	_____	_____
59:	_____	-	-	_____	_____	_____
60:	_____	-	-	_____	_____	_____
61:	_____	-	-	_____	_____	_____
62:	_____	-	-	_____	_____	_____
63:	_____	-	-	_____	_____	_____
64:	_____	-	-	_____	_____	_____

SCREEN 6-85. Processor Channel Assignment Form (Page 4)—Example Only

Recorded Announcements

Purpose

This form is used to assign up to 128 analog or integrated announcements, or any desired combination of both. Integrated announcements are assigned and recorded on the TN750 Announcement circuit pack. The analog announcements are assigned on the TN742, TN746B, or TN769 Analog Line circuit pack that is connected to external recording or playback equipment.

Each announcement is accessed by dialing an extension number that is assigned to each announcement.

Integrated announcements on the TN750B circuit pack may be recorded at 16 Kbits per second (for eight minutes and 32 seconds of announcement time) or 32 Kbits per second (for four minutes and 16 seconds of announcement time), depending on administration. A different recording speed may be used for each integrated announcement. These capacities will be different if a combination of different recording speeds is used.

Administration Commands

The following administration commands can be used to access the Recorded Announcements form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	announcements	—
display	announcements	['print' or 'schedule']
restore	announcements	—
save	announcements	—

* Brackets [] indicate the qualifier is optional.

Note: Announcements are not saved when translations are saved. You must use the “save announcements” command to save your recorded announcements. The “save announcements” command takes at least thirty minutes to complete.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Pages 1 through 8 of the Form

- **Ext**— Enter a 1- to 5-digit unassigned extension number that agrees with the dial plan. Up to 128 extension numbers may be assigned on the form, one extension number for each announcement. References to a particular announcement “Ext” may be from the following forms: Hunt Group, Call Coverage Paths, Trunk Group (Incoming Destination), Call Vector, and Feature-Related System Parameters (DID/Tie/ISDN Intercept Treatment, Controlled Restriction fields).

- **Type**— Enter the type of announcement you want to assign to this extension number. Allowable entries are “integrated” or “analog.”
If “integrated” is entered, the Protect and Rate fields must be completed. If “analog” is entered, the Queue Length and Port fields must be completed. The Queue Length field only applies if “y” is entered in the Queue field.
- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63. Default is “1.”
- **Name**— Enter up to 15 alphanumeric characters to describe the announcement message.
- **Queue**— Enter “y” (yes) to queue calls for the announcement; otherwise, enter “n” (no). Default is “n.”

Page 1 of the Form Only

- **Queue Length**— Applicable if the Queue field is “y” and the Type field is “analog.” Enter the number of calls that can be queued for this analog announcement. Allowable entries are 1 through 150. The sum of the queue entries for all analog announcements cannot exceed 150. Default is “0.” When the Type field entry is “integrated,” “N/A” will be displayed in this field.
- **Protect**— Enter “y” (yes) to protect the integrated announcement from being deleted or changed by any user. Enter “n” (no) to allow only users with a console permission COS to change or delete an announcement. Default is “n.” Note that when the Type field is “analog,” the Rate field is set to “N/A.”
- **Rate**— Used to specify the recoding speed when recording announcements on the TN750B Integrated circuit pack. Valid entries are “16” and “32.” Default is “32.” Note that when the Type field is “analog,” the Rate field is set to “N/A.”
- **Port**— Enter a 6-character port number. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type); the last two characters identify the circuit number (01 through 16). When the Type field entry is “integrated,” “N/A” will be displayed in this field.

ANNOUNCEMENTS

	Ext.	Type	COR	Name	Queue	Q-Len	Protect?	Rate	Port
1:	<u>1701</u>	<u>analog</u>	<u>1</u>	<u>busy</u>	<u>y</u>	10	N/A	N/A	1B0404
2:	<u>1702</u>	<u>analog</u>	<u>1</u>	<u>out of service</u>	<u>n</u>	N/A	N/A	N/A	1B1701
3:	<u>1703</u>	<u>integrate</u>	<u>1</u>	<u>please dial</u>	<u>n</u>	N/A	n	32	N/A
4:	_____	_____	<u>1</u>	_____	<u>n</u>				
5:	_____	_____	<u>1</u>	_____	<u>n</u>				
6:	_____	_____	<u>1</u>	_____	<u>n</u>				
7:	_____	_____	<u>1</u>	_____	<u>n</u>				
8:	_____	_____	<u>1</u>	_____	<u>n</u>				
9:	_____	_____	<u>1</u>	_____	<u>n</u>				
10:	_____	_____	<u>1</u>	_____	<u>n</u>				
11:	_____	_____	<u>1</u>	_____	<u>n</u>				
12:	_____	_____	<u>1</u>	_____	<u>n</u>				
13:	_____	_____	<u>1</u>	_____	<u>n</u>				
14:	_____	_____	<u>1</u>	_____	<u>n</u>				
15:	_____	_____	<u>1</u>	_____	<u>n</u>				
16:	_____	_____	<u>1</u>	_____	<u>n</u>				

SCREEN 6-86. Recorded Announcements Form (Page 1)—Example Only

Implementation Note:

Announcements one and two show the fields that are assigned to the analog and integrated announcement, respectively.

The Queue Length field is only displayed when the Type field is “analog” and the Queue field is “y.”

The Port field is only displayed when the Type field is “analog.”

The Protect field is only displayed when the Type field is “integrated.”

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ANNOUNCEMENTS

	Ext.	Type	COR	Name	Queue
17:	_____	_____	<u>1</u>	_____	<u>n</u>
18:	_____	_____	<u>1</u>	_____	<u>n</u>
19:	_____	_____	<u>1</u>	_____	<u>n</u>
20:	_____	_____	<u>1</u>	_____	<u>n</u>
21:	_____	_____	<u>1</u>	_____	<u>n</u>
22:	_____	_____	<u>1</u>	_____	<u>n</u>
23:	_____	_____	<u>1</u>	_____	<u>n</u>
24:	_____	_____	<u>1</u>	_____	<u>n</u>
25:	_____	_____	<u>1</u>	_____	<u>n</u>
26:	_____	_____	<u>1</u>	_____	<u>n</u>
27:	_____	_____	<u>1</u>	_____	<u>n</u>
28:	_____	_____	<u>1</u>	_____	<u>n</u>
29:	_____	_____	<u>1</u>	_____	<u>n</u>
30:	_____	_____	<u>1</u>	_____	<u>n</u>
31:	_____	_____	<u>1</u>	_____	<u>n</u>
32:	_____	_____	<u>1</u>	_____	<u>n</u>

SCREEN 6-87. Recorded Announcements Form (Page 1)—Example Only

(To reduce repetition, pages 3 through 7 are not shown).

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ANNOUNCEMENTS

	Ext.	Type	COR	Name	Queue
113:	_____	_____	<u>1</u>	_____	<u>n</u>
114:	_____	_____	<u>1</u>	_____	<u>n</u>
115:	_____	_____	<u>1</u>	_____	<u>n</u>
116:	_____	_____	<u>1</u>	_____	<u>n</u>
117:	_____	_____	<u>1</u>	_____	<u>n</u>
118:	_____	_____	<u>1</u>	_____	<u>n</u>
119:	_____	_____	<u>1</u>	_____	<u>n</u>
120:	_____	_____	<u>1</u>	_____	<u>n</u>
121:	_____	_____	<u>1</u>	_____	<u>n</u>
122:	_____	_____	<u>1</u>	_____	<u>n</u>
123:	_____	_____	<u>1</u>	_____	<u>n</u>
124:	_____	_____	<u>1</u>	_____	<u>n</u>
125:	_____	_____	<u>1</u>	_____	<u>n</u>
126:	_____	_____	<u>1</u>	_____	<u>n</u>
127:	_____	_____	<u>1</u>	_____	<u>n</u>
128:	_____	_____	<u>1</u>	_____	<u>n</u>

SCREEN 6-88. Recorded Announcements Form (Page 8)—Example Only

Remote Access

Purpose

This form is used to implement the Remote Access feature. Remote Access permits a caller located outside the System to access the System through the public or private network and then use the features and services of the System.

Remote Access users can dial into the System using CO, FX, WATS, and ISDN-PRI trunks. In addition, a dedicated Remote Access DID number can be provided.

After System dial tone is obtained, the Remote Access user is, for reasons of System security, required to dial a Barrier Code. One of up to 10 Barrier Codes, each with a different Class of Restriction, can be assigned.

Refer to the "Remote Access Flow Chart" figure at the end of this section. The chart depicts the sequence of events associated with Remote Access call processing.

Administration Commands

The following administration commands can be used to access the Remote Access form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	remote access	—
display	remote access	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on the form:

Note: AT&T has designed the Remote Access feature incorporated in this product that, when properly administered by the customer, will enable the customer to minimize the ability of unauthorized persons to gain access to the network. It is the customers responsibility to take the appropriate steps to properly implement the features, evaluate and administer the various restriction levels, protect access codes and distribute them only to individuals who have been advised of the sensitive nature of the access information. Each authorized user should be instructed concerning the proper use and handling of access codes.

In rare instances, unauthorized individuals make connections to the telecommunications network through use of remote access features. In such event, applicable tariffs require that the customer pay all network charges for traffic. AT&T cannot be responsible for such charges, and will not make any allowance or give any credit for charges that result from unauthorized access.

- **Remote Access Extension**— Enter an extension number (may not be a VDN extension) for Remote Access. This extension is associated with each trunk that supports the Remote Access feature. May only be blank if no barrier codes assigned. Default is blank. The extension is used as if it was a DID extension. Only one DID extension may be assigned as the Remote Access Extension. Calls to that number are treated the same as calls on the Remote Access trunk.

When a trunk group is dedicated to Remote Access, the Remote Access extension number is administered on the trunk group's Incoming Destination field. Typically, Remote Access is used for after business hours to administer the Incoming Destination field on the trunk group as "0" (attendant) and administer the Remote Access extension as the Night Service extension. Incoming calls route to attendant until the Night Service button is pressed on console.

- **Barrier Code Length**— Enter the desired barrier code length (4 to 7 digits) or leave blank (indicates no barrier code is required). All Barrier Codes assigned in the system must be the same length. Default is blank.
- **Authorization Code Required**— Enter "y" if an Authorization Code must be dialed by remote access users to access the System's facilities; otherwise, enter "n." Default is "n."
- **Remote Access Dial Tone**— This field is only displayed when the Authorization Code Required field is "y." Default is "n" (no). Enter "y" (yes) if recall dial tone is to be returned to a remote access caller after having dialed a barrier code but before dialing an authorization code (if both are required).
- **Barrier Code**— Enter any desired Barrier Codes. All codes must be a 4- to 7-digit number and conform to the desired length selected above. The code can be any combination of the digits 0 through 9. If the Barrier Code Length field is blank, the first Barrier Code field must be specified as "none." Duplicate entries are not allowed. Default is blank.
- **COR**— Enter the Class of Restriction (COR) number (0 through 63) associated with the Barrier Code that defines the call restriction features. Default is "1."
- **COS**— Enter a Class of Service (COS) number (0 through 15) associated with the Barrier Code that defines access permissions for call processing features. Default is "1."

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REMOTE ACCESS

Remote Access Extension: _

Barrier Code Length: _

Authorization Code Required? n

Remote Access Dial Tone? _

BARRIER CODE ASSIGNMENTS (Enter up to 10)

Barrier Code	COR	COS	Barrier Code	COR	COS
1 : _____	<u>1</u>	<u>1</u>	6 : _____	<u>1</u>	<u>1</u>
2 : _____	<u>1</u>	<u>1</u>	7 : _____	<u>1</u>	<u>1</u>
3 : _____	<u>1</u>	<u>1</u>	8 : _____	<u>1</u>	<u>1</u>
4 : _____	<u>1</u>	<u>1</u>	9 : _____	<u>1</u>	<u>1</u>
5 : _____	<u>1</u>	<u>1</u>	10 : _____	<u>1</u>	<u>1</u>

SCREEN 6-89. Remote Access Form—Example Only

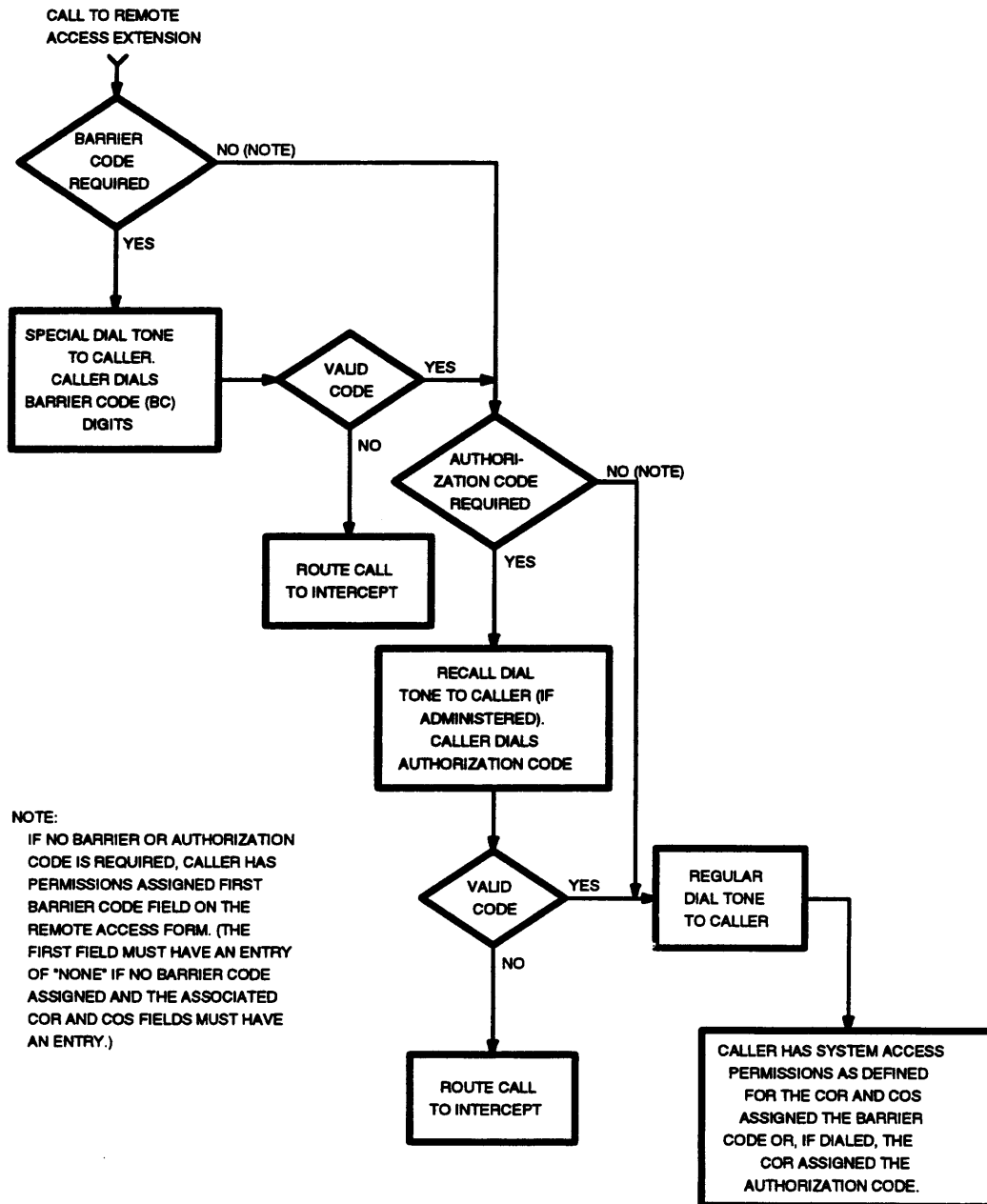


FIGURE 6-11. Remote Access Flow Chart

Special Information Tones

Purpose

Provides the capability of specifying the treatment of Special Information Tones (SITS) used for outbound call management-type calls. The TN744 Call Classifier circuit pack ports are used to detect SITS. The TN744 is capable of detecting the following six SITS:

- SIT Ineffective Other
- SIT Intercept
- SIT No Circuit
- SIT Reorder
- SIT Vacant Code
- SIT Unknown

The CPN/BN option must be enabled on the System-Parameters Customer-Options form before associated forms or fields on forms can be administered.

Administration Commands

The following administration commands can be used to access the SIT Treatment For Call Classification form. In some cases, just the most commonly used commands are shown. Refer to Administration commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	sit-treatment	—
display	sit-treatment	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for each field on the form as follows: In the field following each type of SIT, enter “answered” to specify that the call is classified as answered, and is therefore sent to an agent; or enter “dropped” to specify that the call is classified as not answered, and is therefore not sent to an agent.

- **SIT Ineffective Other**— Sample announcement following this SIT—“You are not required to dial a “1” when calling this number.” Valid entries are “answered” and “dropped.” Default is “dropped.”
- **SIT Intercept**— Sample announcement following this SIT—“XXX-XXXX has been changed to YYY-YYYY, please make a note of it.” Valid entries are “answered” and “dropped.” Default is “answered.”
- **SIT No Circuit**— Sample announcement following this SIT—“All circuits are busy, please try to call again later.” Valid entries are “answered” and “dropped.” Default is “dropped.”

- **SIT Recorder**— Sample announcement following this SIT—“Your call did not go through, please hang up and dial again.” Valid entries are “answered” and “dropped.” Default is “dropped.”
- **SIT Vacant Code**— Sample announcement following this SIT—“Your call cannot be completed as dialed, please check the number and dial again.” Valid entries are “answered” and “dropped.” Default is “dropped.”
- **SIT Unknown**— A situation or condition that is unknown to the network is encountered. Valid entries are “answered” and “dropped.” Default is “dropped.”

SIT TREATMENT FOR CALL CLASSIFICATION	
SIT Ineffective Other:	<u>dropped</u>
SIT Intercept:	<u>answered</u>
SIT No Circuit:	<u>dropped</u>
SIT Reorder:	<u>dropped</u>
SIT Vacant Code:	<u>dropped</u>
SIT Unknown:	<u>dropped</u>

SCREEN 6-90. SIT Treatment For Call Classification Form

Synchronization Plan

Purpose

This form is used to assign primary and secondary external synchronization sources. This provides synchronization between the switch and digital facilities that the switch is connected to. When the switch is connected to digital facilities, the switch (both PPN and EPN) must be synchronized to the incoming data rate of 8000 frames per second. This timing information reference may be derived from DS1 facilities or from a Stratum 3 external clock. Loss of the reference signal, excessive phase changes, and variation in timing frequency can cause loss of data or dropped data connections. When no external digital facilities, including Stratum 3 external clocks, are present or when a switch is the “master” node of a network providing timing to the rest of the network, the timing can come from an oscillator on the switch’s tone/clock circuit pack.

It should be noted that the Synchronization Plan may not be required for some digital connections. The switch’s internal clock may suffice.

Administration Commands

The following administration commands can be used to access the Synchronization Plan form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	synchronization	—
display	synchronization	['print' or 'schedule']

* Brackets [] indicate the qualifier is optional.

Form Instructions

Make assignments as required for the following fields on each page of the form:

Page 1 of the Form

- **Stratum**— Enter the stratum level to be used for synchronization. Valid entries are “3” or “4.” Note that Stratum 3 capability is only possible when using a TN780 Tone Clock circuit pack. Default is “4.”
- **Port Network**— Only displayed when the Stratum field entry is “3.” Enter the port network that the Stratum 3 being used for synchronization is connected to. Valid entries are 1 through 3.
- **Primary**— Only displayed when the Stratum field entry is “4.” Note that the Primary and Secondary synchronization sources (DS1 facilities) must be on the same Port Network (that is, PPN, EPN1, or EPN3). Enter a 4-character DS1 circuit pack location number for the DS1 circuit pack that will function as the primary synchronization source. The first character identifies the network (1 through 3, default is “1” if no entry), the second character identifies the carrier (A through E), and the last two identify the circuit pack slot number (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through

18 for single-carrier cabinets depending on cabinet type). A blank entry means no external source. The clock circuit pack's internal source is the implicit last choice. Only one switch in the network can function as the primary synchronization source.

- **Secondary**— Only displayed when the Stratum field entry is "4." Note that the Primary and Secondary synchronization sources (DS1 facilities) must be on the same Port Network (that is, PPN, EPN1, or EPN3). Enter a 4-character DS1 circuit pack location number for the DS1 circuit pack that will function as a secondary synchronization source. The first character identifies the network (1 through 3, default is "1" if no entry), the second character identifies the carrier (A through E), and the last two identify the circuit pack slot number (01 through 20 for multi-carrier cabinets depending on carrier type or 01 through 18 for single-carrier cabinets depending on cabinet type). The system will automatically select the secondary circuit pack if the primary circuit has a failure.

Pages 1 and 2 of the Form

- **DS1 CIRCUIT PACKS—Location/Name/Slip**— Only displayed if the Stratum field entry is "4." Identifies the location, name, and slip detection parameter for each DS1 circuit pack administered via the DS1 Circuit Pack form. These fields are display-only.

Instructions for administering a DS1/DMI interface are provided in the *AT&T System 75 and System 85 DS1/DMI/ISDN-PRI Interface Service Manual*, 555-025-101.

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SYNCHRONIZATION PLAN

SYNCHRONIZATION SOURCE (DS1 circuit pack location)

Stratum: 4

Port Network: 1

Primary: Secondary:

DS1 CIRCUIT PACKS

Location	Name	Slip	Location	Name	Slip
_____	_____	-	_____	_____	-
_____	_____	-	_____	_____	-
_____	_____	-	_____	_____	-
_____	_____	-	_____	_____	-
_____	_____	-	_____	_____	-
_____	_____	-	_____	_____	-
_____	_____	-	_____	_____	-
_____	_____	-	_____	_____	-

SCREEN 6-91. Synchronization Plan Form (Page 1)—Example Only

Implementation Note:

The Port Network field is only displayed if the Stratum field entry is "3."

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SYNCHRONIZATION PLAN
DS1 CIRCUIT PACKS

Location	Name	Slip	Location	Name	Slip
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—

SCREEN 6-92. Synchronization Plan Form (Page 2)—Example Only

System-Parameters Customer-Options

The System-Parameters Customer-Options form is implemented in the system during the installation process. The form is not available for use after installation except when option changes are required by the customer. Procedures covering the use of the System-Parameters Customer-Options form are provided in *DEFINITY® Communications System Generic 1 and Generic 3i—Installation and Test*, 555-230-104. Refer to Chapter 4 for a brief description of each optional feature or to *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description*, 555-230-201 for a detailed description of each feature.

The optional features that supplement the standard system voice/data feature package capabilities are as follows. Note that the System can be optioned for either ASAI or CPN/BN but not both.

- Abbreviated Dialing—Enhanced List
- CallVisor ASAI

In addition, the following ASAI capability groups automatically default to “y” if the ASAI Interface is enabled:

- Adjunct Call Control Group—Allows the associated adjunct (for example, ICM) to invoke third party capabilities.
- Adjunct Routing Group—Allows the associated adjunct to provide adjunct routing information to the switch for incoming calls.
- Domain Control Group—Allows the associated adjunct to: (1) control and receive event reports for station sets and (2) receive logout event reports for a given ACD split.
- Event Notification Group—Allows the associated adjunct to request incoming call notification and enables the switch to send event reports about such calls.
- Request Feature Group—Allows the associated adjunct to request features such as “change work modes,” “login,” and “logout.”
- Set Value Group—Allows the adjunct to request status changes for Message Waiting lamps (that is, control the on/off state of the lamps).

Note: The above options are initially defaulted to “yes,” but can be disabled during the system installation process.

- Authorization Codes
- ACD
- ARS
- ARS/AAR Digit Conversion (requires ARS and Private Networking or UDP to be enabled)
- ARS/AAR Partitioning
- Basic CMS Measurements
- Call Work Codes (CWC) (requires ACD to be enabled)
- CAS Branch

- CAS Main
- DCS
- Emergency Access to the Attendant
- Forced Entry of Account Codes
- Hospitality
- Hospitality Parameter Reduction (requires Hospitality to be enabled)
- ISDN-PRI
- Lookahead Interflow [requires ISDN-PRI and Vectoring (Basic) to be enabled]
- CPN/BN
- Private Networking
- Service Observing
- Time of Day Routing (requires ARS Partitioning and either ARS or Private Networking features to be enabled)
- TN744 Answer Detection
- UDP
- Vectoring (Basic)
- Vectoring (Prompting)

After activation of an optional feature, the associated form(s) and fields on forms require completion to define the feature parameters and service criteria. The implementation procedures for all features are provided in this manual. However, if an optional feature is not provided, the associated implementation procedures are blocked.

Note: EPN and duplication option are optional features that do not need to be administered; these feature options are dependent upon the hardware configuration of the system. See *DEFINITY® Communications System Generic 1 and Generic 3i—System Description*, 555-230-200, for additional information on the EPN and the duplication option.

Terminating Extension Group

Purpose

This form is used to define Terminating Extension Groups (TEGs).

Any voice terminal can be assigned as a TEG member however, only a multi-appearance voice terminal can be assigned a TEG button with associated status lamp. The TEG button allows the terminal user to select a TEG call appearance for answering or for bridging onto an existing call.

The TEG members are assigned on an extension number basis. Call reception restrictions applicable to the group are specified by the group COR. The group COR takes precedence over an individual member's COR. The members could all be termination restricted but still receive calls if the group is not restricted.

The system allows for as many as 32 TEGs with up to four members each. An extension number can be assigned to more than one TEG but can have only one appearance of each group.

Administration Commands

The following administration commands can be used to access the TEG form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	term-ext-group	1-32 (or 'next')
change	term-ext-group	1-32
display	term-ext-group	1-32 ['print' or 'schedule']
list	term-ext-group	['print' or 'schedule']
remove	term-ext-group	1-32

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form:

- **Group Number**— Enter a group number from 1 through 32 when completing a paper form. This is a display-only field when the form is accessed using an administration command such as add or change.
- **Group Extension**— Enter an unused extension number (may not be a VDN extension) consisting of 2 to 5 digits (do not leave blank).
- **Group Name**— Enter up to 15 characters to identify the group.
- **Coverage Path**— Enter a number from 1 through 600 for the call coverage path for this group. (A TEG cannot serve as a coverage point; however, calls to a TEG can redirect to coverage.) Valid entries are one through 600 or leave blank.
- **Security Code**— Enter a 4-digit security code or leave blank. This code is used for the Demand Print feature.

- **COR**— Enter the desired Class of Restriction (COR) number (0 through 63) that reflects the desired restrictions. Default is “1.”
- **ISDN Caller Display**— Enter “grp-name” or “mbr-name” to specify whether the TEG group name or member name (member of TEG where call terminated) will be sent to the originating user. This field is required if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form. If ISDN-PRI is not enabled, leave blank.
- **Ext**— Enter the extension number (may not be a VDN extension) for the members of this group.
- **Name**— Make no entry. The name is assigned to the preceding extension number when the TEG member's voice terminal is administered.

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TERMINATING

Group Number: _	Group Extension: ____
Group Name: _____	Coverage Path: ____
Security Code: _____	COR: 1
ISDN Caller Display: _____	

GROUP MEMBER ASSIGNMENTS

Ext	Name	Ext	Name
1: ____		3: ____	
2: ____		4: ____	

SCREEN 6-93. Terminating Extension Group Form—Example Only

Toll Analysis

Purpose

Used to associate dialed strings to the System's Restricted Call List (RCL), Unrestricted Call List (UCL), and Toll List. In addition, dialed strings can be associated with the SMDR Forced Entry of Account Codes feature (that is, Calls from facilities whose COR is administered to include Forced Entry of Account Codes will be required to include an account code if the dialed string matches a dialed string field associated with "SMDR Feac").

Note: The Toll List associated with this form has neither relationship nor interaction with the ARS Toll Table described in Chapter 5.

Administration Commands

The following administration commands can be used to access the Toll Analysis form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
change	toll	Enter digits between 0-9, 'x', or 'X' ['min' 1-23]
display	toll	Enter digits between 0-9, 'x', or 'X' ['min' 1-23] ['print' or 'schedule']
list	toll	['start' dialed-string] ['count' (1-1000)] [print]
list	toll restricted-call	['start' dialed-string] ['count' (1-1000)] [print]
list	toll unrestricted-call	['start' dialed-string] ['count' (1-1000)] [print]

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignments as required for the following fields on the form

- **Percent Full**— This is a 3-character display-only field. The field displays the percentage of the system memory resources that are being utilized. A common pool of memory resources is shared between the ARS/AAR Digit Conversion, ARS/AAR Digit Analysis, and Toll Analysis Tables. If the Percent Full display indicates that the common pool of memory resources is in jeopardy of becoming full (that is, 100 percent), perform any of the following to "free-up" resources
 - Delete unnecessary entries from any of the shared resources tables.
 - Utilize the RHNPA table for 6-digit ARS routing.
 - Reduce dialed string field entries to the shortest possible length that accomplishes the desired function.

- **Dialed String**— Enter up to an 18-character dialed digit string. Valid entries include the digits 0 through 9 and the wild card character “x” or “X.” The wild card letter “x” or “X” may be used to substitute for any digit in the string. A Dialed String, when entered, must be associated with at least one RCL, UCL, SMDR Forced Entry Account Code (SMDR FEAC), or Toll List.
- **Min**— Enter the minimum number of digits to collect (1 through 18). The user can actually dial up to 23 digits (match is on first 18). Valid entries are 1 through 18. Default is blank.
- **Max**— Enter the maximum digits to collect. The value must be greater than or equal to the Min value. Valid entries are 1 through 23. Default is blank.
- **RCL**— Enter “x” to assign the Dialed String to the RCL. All entries of “x” and their associated dialed strings are referred to as the System’s RCL. The RCL can be assigned to any COR. A call attempt from a facility whose COR is marked as being associated with the RCL and whose dialed string matches a RCL dialed string field will be denied. The caller will receive intercept treatment. Default is blank.
- **Toll List**— Enter “x” to assign the Dialed String to the Toll List. All entries of “x” and their associated dialed strings are referred to as the System’s Toll List. The Toll List is a list of dialed strings used for toll restriction analysis. Default is blank.

When a user calls from a facility whose COR has a Calling Party Restriction of “all-toll” or “tac-toll,” the System checks the Toll Analysis form for the user’s dialed string. If a match occurs and the Toll List field is set to “x,” the call will be denied unless the string is also associated with an UCL that is also assigned the facility’s COR. Refer to the COR form instructions in this Chapter for definitions of the Calling Party Restrictions. Also refer to the UCL field description for additional information about UCLs.

Note that this Toll List has no relationship to the ARS Toll Table described in Chapter 5.

The next table shows the System’s default toll list assignments.

TABLE 6-M. Default Toll List Assignments

Dialed String	Min	Max	Toll List
0	1	23	x
1	4	23	x
20	10	10	x
21	10	10	x
30	10	10	x
31	10	10	x
40	10	10	x
41	10	10	x
50	10	10	x
51	10	10	x
60	10	10	x
61	10	10	x
70	10	10	x
71	10	10	x
80	10	10	x
81	10	10	x
90	10	10	x
91	10	10	x

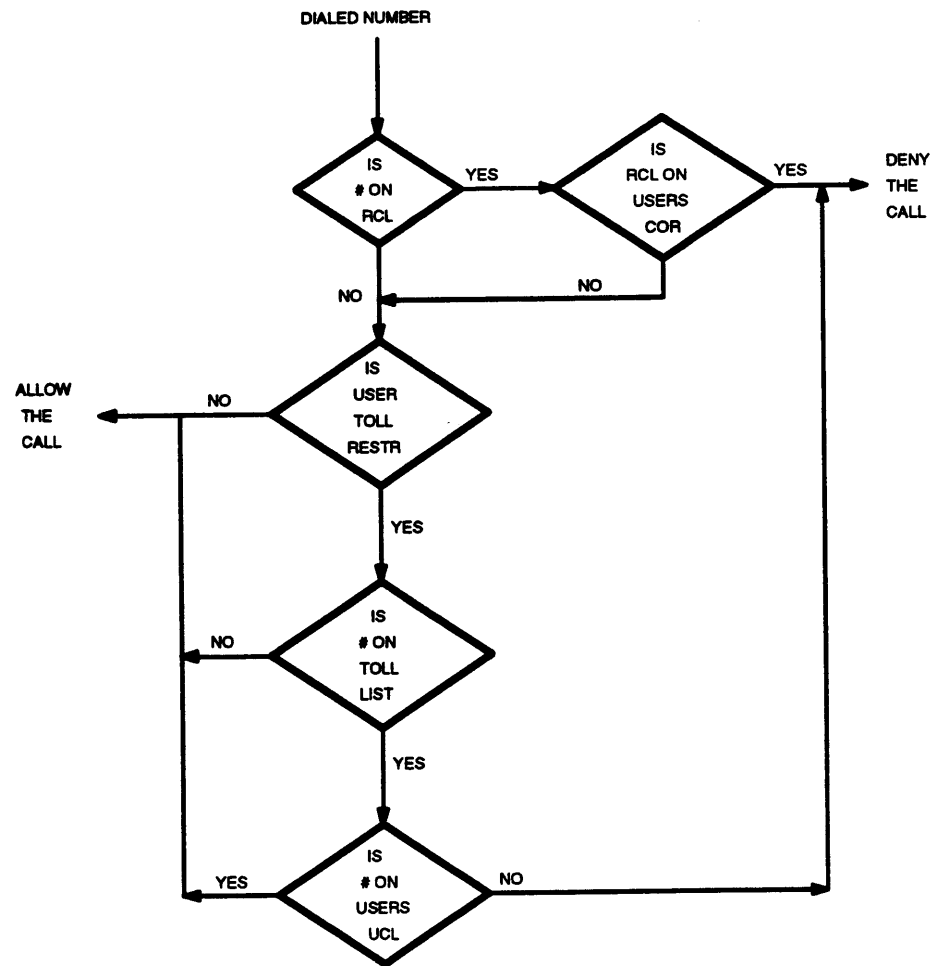
- **SMDR FEAC**— Enter “x” to assign the dialed string to the SMDR Forced Entry of Account Code feature. Users who place calls from facilities whose COR is marked as being associated with Forced Entry of Account Codes and whose dialed string matches an SMDR FEAC dialed string field will be required to enter an account code before the call will complete. Default is blank.
- **Unrestricted Call List**— Enter “x” in the appropriate field (1 through 10) to assign the dialed string to one of the System’s UCL. A UCL (10 maximum in the System) is a list of dialed strings that can be dialed from a facility whose COR assignment includes the UCL List number. The UCL number or numbers (one through 10) are assigned on appropriate COR forms and associate the COR with the UCL List(s). A toll call from a facility that is “all-toll” restricted, for example, will complete if the facilities COR is associated with a UCL whose dialed string field matches the dialed number. Note that the call will not complete if the COR is also associated with the System’s RCL and whose dialed string also matches the dialed number. The RCL takes precedence over the UCL. Default is blank for all fields.

The following Authorization Check Flow Chart (see figure) depicts the order of call processing functions that occur as a result of user dialed numbers and associated entries on the Toll Analysis form and the user's COR form.

As shown on the flowchart, RCLs have priority over UCLs. Checks are made as follows:

1. The first check determines if the dialed string is associated with the RCL on the Toll Analysis form. If it is, the RCL field on the COR form associated with the calling party's station is checked. If the field is set to "y," the call is denied, otherwise, checking continues.
2. The next check determines if the Calling Party Restriction field on the COR form is "all-toll" or "tac-toll." If it is, checking continues, otherwise the call is allowed.
3. The next check determines if the dialed string is associated with the Toll List on the Toll Analysis form. If it is, checking continues, otherwise, the call is allowed.
4. The next check determines if the dialed string is associated with a UCL number (one through 10) on the Toll Analysis form. If it is, the COR form is checked to determine if the UCL number is entered on the UCL field on the form. If it is, the call is allowed, otherwise, the call is denied.

In summary, calls from facilities are processed based on the COR assigned the facility, the COR's association with the System's RCL, UCL, and Toll List, and the specific digits dialed.



THIS FLOW CHART DOES NOT REFLECT
ANY FEATURE INTERACTIONS THAT
MIGHT TAKE PLACE, SUCH AS WITH
AUTHORIZATION CODES

FIGURE 6-12. Authorization Check Flow Chart

[illegible]

SCREEN 6-94. Toll Analysis Form

Implementation Note:

Entries on the form do not have to be input in a sorted order. Subsequent displays of the form will show all entries in a sorted increasing order.

Vector Directory Number

Purpose

This form is used to define Vector Directory Numbers (VDNs) for the Call Vector feature. A VDN is an extension number used to access a call vector. Each VDN is mapped to one call vector.

VDNs are software extension numbers (that is, not assigned to physical equipment). A VDN is accessed via a direct dial CO trunk mapped to the VDN (incoming destination or night service extension), a DID trunk a LDN call. Note that the VDN may be Night Destination for LDN. A call vector consists of a set of commands that instruct the System on how to process calls to the VDN.

The System allows a maximum of 500 VDNs and 256 call vectors. For additional information, refer to the Call Vectoring feature description in *DEFINITY® Communication System Generic 1 and Generic 3i—Feature Description*, 555-230-201. The Vectoring (Basic) or Vectoring (Prompting) options must be enabled on the System-Parameters Customer-Options form before the VDN Form can be administered.

Administration Commands

The following administration commands can be used to access the VDN form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	vdn	xxxxx (extension number of VDN to be added)
change	vdn	xxxxx (extension number of VDN to be changed)
display	vdn	xxxxx (extension number of VDN to be displayed) ['print' or 'schedule']
list	vdn	xxxxx (extension number of VDN to be listed) ('count' 1-500) ['print' or 'schedule']
remove	vdn	xxxxx (extension number of VDN to be removed)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Make assignment as required for the following fields on the form:

- **Extension:**— Enter the extension associated with the VDN when completing a paper form. The extension is a 1- to 5-digit number which starts with a valid first digit and length as defined by the System's dial plan. This is a display-only field when using an administration command such as "add vdn xxx" to access the form.
- **Name:**— Enter up to a 15-character alphanumeric name that is used to identify the VDN. This is an optional field that need not contain any data.

- **Display Override?**— This entry affects the operation of an agent's display when a call is routed through several VDNs. If it is set to "n" (no), the name of this VDN appears on the agent's display. If any subsequent VDNs are used to process this call, their names will not appear on the terminating display. If the field is set to "y" (yes), the name of the VDN appearing on the terminating display will depend on the administration and chaining of the subsequent VDNs. The default value for the field is "n."
- **COR:**— Enter a 1-to 2-digit number which specifies the class of restriction (COR) to be assigned the VDN. The default value is "1." The field cannot be blank and must have an entry in the range from 0 through 63.
- **Vector Number**— Enter a 1- to 3-digit vector number that specifies a particular call vector that is accessed through the VDN. Valid entries are in the range from 1 through 256. The field cannot be blank.
- **Measured**— Determines whether the VDN will be measured by CMS or BCMS or both. If it is to be measured, any calls placed to the VDN will be tracked by CMS or BCMS or both. Allowable entries are "none," "internal," "external," or "both." Default is "none."

VECTOR DIRECTORY NUMBER	
Extension:	XXXXX
Name:	_____
Display Override?	<u>n</u>
COR:	<u>1</u>
Vector Number:	<u>1</u>
Measured:	none

SCREEN 6-95. Vector Directory Number Form

Implementation Note:

The BCMS feature must have been optioned if the "Measured" field is set to "internal" or "both." In addition, the appropriate CMS release must be administered on the Feature-Related System Parameters form if the field is being changed to "external" or "both."

The next figure shows three typical examples of how VDNs are used. An outside call to a VDN is processed based on the various elements that are entered on the VDN form. Handling of the call is based on the commands associated with the vector. Displayed information is dependent on the setting of the Display Override field entry. As shown in the third example, the Display Override field set to "N" for VDN 4501 determines the name displayed on the terminating extension 7000.

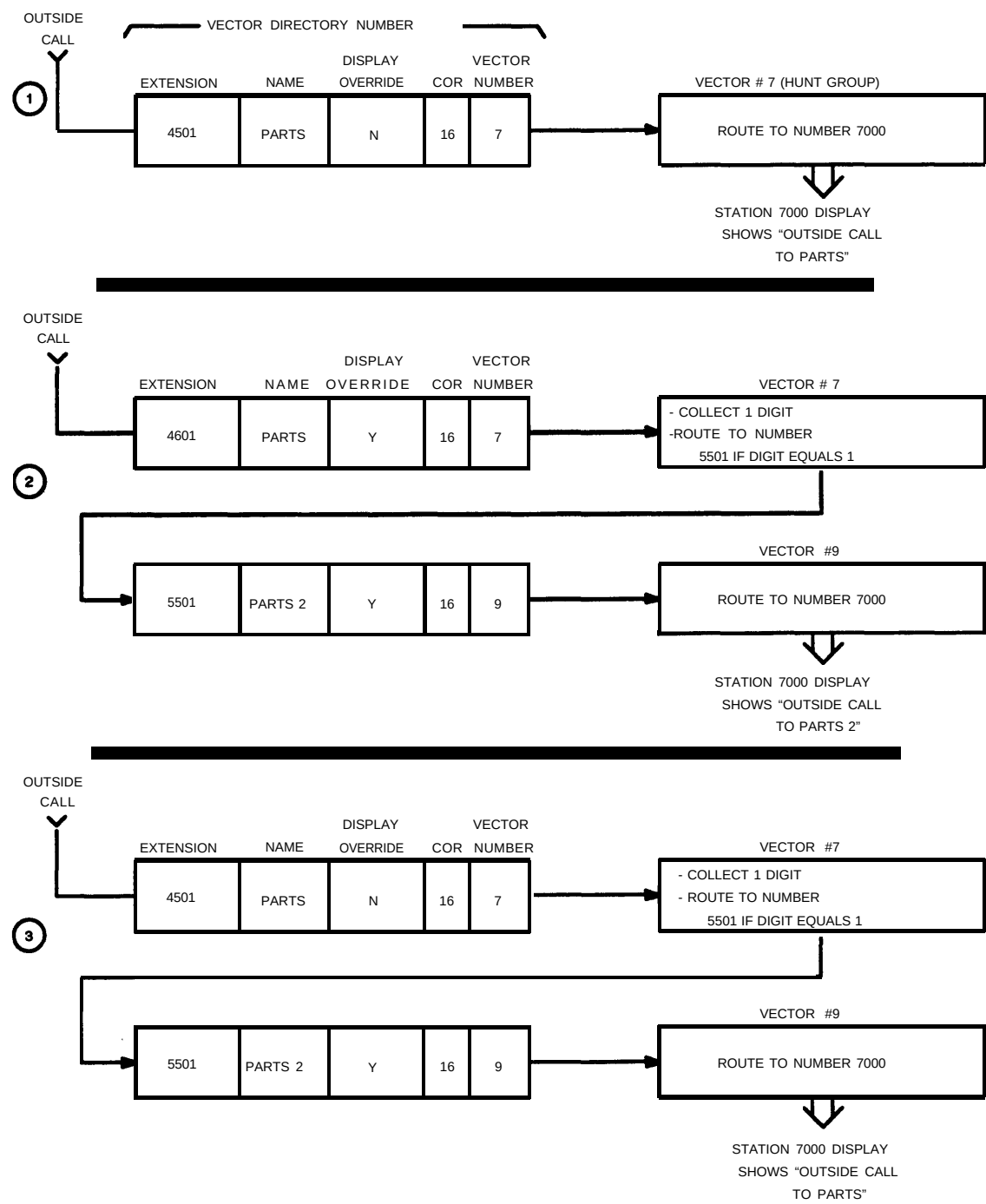


FIGURE 6-13. Typical VDN Call Processing Example

Voice Terminals—General

Voice terminals combine the capabilities of both a telephone and computer and have a variety of controlling and monitoring capabilities. While providing basic telephone service (placing and answering calls), voice terminals can also be used to activate or deactivate the advanced features of the System. Both single-line and multi-appearance voice terminals are supported. A single-line voice terminal can have only one incoming call appearing at the terminal at a time. Multi-appearance voice terminals can have up to 10 calls appearing at the terminal at the same time. Several of the terminals have associated alphanumeric display capabilities for display of call progress and related status information.

Each voice terminal to be assigned in the System must be administered using System forms. Unique forms are provided for the terminals which are administered by their voice terminal type. Certain terminals that do not have their own forms can be administered using an existing form. Terminals not accounted for may be administered using the Enhanced Terminal Administration (ETA) feature and its associated Alias Station form. Refer to the ETA feature description in Chapter 4 for additional information. Refer to the voice terminal information provided later in this Chapter for specific implementation instructions for each terminal type.

System Voice Terminals

The “System Voice Terminals” table that follows lists that are administrable in the system. In addition, administration is supported for Personal Computer-6300 and 7300 PBX Connections.

Voice Terminal Feature Button Descriptions

The “Voice Terminal Feature Button Descriptions” table in this section provides descriptions of the feature buttons that can be administered on multi-appearance voice terminals. The administrable software names and recommended button label names are shown.

Voice Terminal Feature Button Characteristics

The “Voice Terminal Feature Button Characteristics” table provides a listing of voice terminal feature button characteristics. The features or functions that have associated feature buttons are listed alphabetically on the table. Recommended button labels and administration names that must be entered on System forms are listed for each button type. Certain buttons are administered so that their associated status lamps can be used to provide visual status indications of a related feature or function. In some cases, the button itself is not functional. These buttons are noted as “[status lamp]” in the Feature or Function column on the table. (Note that when assigning one of these buttons that the button must have an associated status lamp.) Buttons noted as “[display button]” are used to support voice terminals equipped with alphanumeric displays. These buttons are only functional if the terminal has a display.

Note that depending on the voice terminal type (for example, MET, analog, digital), certain feature buttons may or may not be administrable on the voice terminal. Coverage for each voice terminal type (where appropriate) includes a listing of the feature buttons that can be administered on the terminal.

TABLE 6-N. System Voice Terminals

Terminal Type	Model †	Administered As
Single-Line Analog	500	500
	2500	2500
	2500 With Message Waiting Adjunct	2500
	7101A	7101A
	7102A	7101A
	7103A Programmable	7103A
	7104A	7104A
Multi-Appearance Hybrid	7303S	7303S
	7305S	7305S
	7309H	7309H
Multi-Appearance Digital	7401D	7401D
	7403D	7403D
	7404D	7404D
	7405D	7405D
	7406D	7406D
	7407D	7407D
	7410D	7403D
	7434D	7434D
	"Callmaster" Terminal (602A1)	602A1
Multi-Button Electronic Telephone (MET) Sets	10 Button	10MET
	10 Button With Built-in Speakerphone	10MET
	20 Button	20MET
	30 Button	30MET
Terminals	510D	510
	515BCT	515
ISDN-BRI Station	—	asai*
ISDN-BRI Station	7505D	7505D
	7506D	7506D
	7507D	7507D
	8503T	8503T

Note: When administering a system that will be comprised of a large number of digital voice terminals, 20- and 30-MET sets, or hybrid sets equipped with feature buttons, administer the voice terminals in the following order:

1. Digital voice terminals
2. 20-, 30-MET sets
3. Hybrid sets equipped with feature buttons
4. All others (that is, analog, hybrids, 10-MET, etc.)

* "asai" is administered as the ISDN-BRI set type in support of an ASAI link. This interface supports use of CallVisor ASAI and an associated adjunct such as CONVERSANT speech processor used with ICM feature. Refer to ASAI Link form (in this Chapter) and CallVisor ASAI feature description in Chapter 4 for additional information.

TABLE 6-O. Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
abr-prog	AbrvDial Program	Abbreviated Dialing Program Mode: allows the user to program or reprogram abbreviated dialing buttons or to store or change a number in a personal list associated with the station. (One per-station maximum.)
abr-spchar	AbrvDial (char)	Abbreviated Dialing Special Character: allows the user to enter an associated special character [~m (mark), ~p (pause), ~s (suppress), or ~w (wait)] when programming an abbreviated dialing list entry. [One each (~m, ~p, ~s, ~w) per station.]
abrdg-appr	(extension)	Bridged Call Appearance of an Analog Station: allows the user to have an appearance of a single-line voice terminal's extension number. (Can only be assigned to a 2-lamp button. Refer to specific terminal information for maximums.)
abrv-dial	AD	Abbreviated Dialing: used to access an associated abbreviated dialing list entry and causes the associated stored number it to be dialed. (One per AD list per dial code; otherwise, no per-station maximum.)
ac-alarm	AC Alarm	Administered Connection Alarm Notification: associated status lamp lights when the number of failures for at least one administered connection has equaled the specified threshold. (One per-station maximum.)
aca-call	Auto-Ckt Assure	Automatic Circuit Assurance (display button): allows users of display-equipped voice terminals to identify trunk malfunctions. The System automatically initiates a referral call to the terminal when a possible failure occurs. The button is used to activate/deactivate referral calls. (One per-system maximum.)
after-call *	After Call Work	After Call Work Mode: used to remove an agent from ACD call distribution in order for the agent to complete ACD-related activities such as forms completion. (One per split group; otherwise, no per-station maximum.)
assist *	Assist	Supervisory Assistance used by an ACD agent to place a call to a split supervisor. (One per split group; otherwise, no per-station maximum.)
atd-qcalls ‡	AQC	Attendant Queue Calls (<i>display button</i>): used to track the number of calls in the attendant group's queue and obtain a display of the queue status. (One per-station maximum.)
atd-qtime ‡	AQT	Attendant Queue Time (<i>display button</i>): used to track the calls in the attendant group's queue with regards to the oldest time a call has been queued, and obtain a display of the queue status. (One per-station maximum.)

* The Automatic Call Distribution feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
aut-msg-wt	Message (name or ext #)	Automatic Message Waiting: associated status lamp automatically lights when an LWC message has been stored in the System for the associated extension (can be a VDN). (One per aut-msg-ext; otherwise, no per-station maximum.)
auto-cback	Auto CallBack	Automatic Call Back: when activated, allows inside user who placed a call to a busy or unanswered voice terminal to be called back automatically when the called voice terminal becomes available to receive a call. (One per-station maximum.)
auto-icom	Auto (name or ext #)	Automatic Intercom: used to place a call to the station associated with the button. The called user receives a unique alerting signal, and a status lamp associated with a Dial or Automatic Intercom button, if provided, flashes. (One per group per dial code; otherwise, no per-station maximum.)
auto-in *	Auto In	Auto-In Mode: allows the user to become automatically available for new ACD calls upon completion of an ACD call. (One per split group otherwise, no per-station maximum.)
auto-wkup † ‡	Auto Wakeup	Automatic Wakeup (<i>display button</i>): allows attendants, front-desk users, and guests to request a wakeup call to be placed automatically to a certain extension number (may not be a VDN extension) at a later time. (One per-station maximum.)
aux-work *	Auxiliary Work	Auxiliary Work Mode: removes agent from ACD call distribution in order to complete non-ACD-related activities. (One per split group and one per-station maximum.)
brdg-appr	(extension)	Bridged Call Appearance of a Multi-Appearance Station: provides an appearance of a voice terminal's primary extension number at the terminal assigned the brdg-appr button. The button tracks and may be used like a call appearance on the tracked station. (Can only be assigned to a 2-lamp button. Refer to specific terminal information for maximums.) A VDN cannot be assigned to a bridged appearance button.
busy-ind	Busy (trunk or ext #)	Station Busy Indication: (see Facility Busy Indication feature) provides user with a visual indication of the busy or idle status of an extension (can be a VDN extension), trunk group, hunt group (DDC or UCD), or paging zone. User can use button for direct access to associated facility. (One per TAC/Ext; otherwise, no per-station maximum.)

* The Automatic Call Distribution feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

† The Hospitality feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
call-appr	(extension)	Call Appearance: used to originate or receive calls. (Refer to specific voice terminal information for maximums allowed.)
call-disp ‡	Return Call	Call Displayed Number (<i>display button</i>): automatically initiates a call to the currently displayed number, which may be a part of a leave word calling message or a number retrieved using the integrated directory feature. (One per-station maximum.)
call-fwd	Call Forwarding	Call Forwarding: used to activate/deactivate the Call Forwarding All Calls feature. Calls that would normally terminate at the station are redirected (forwarded) to another extension (may not be a VDN extension). (One per-station maximum.)
call-park	Call Park	Call Park: used to place a current call in the call park state and later used to retrieve the call. Note that a call cannot be parked on a VDN extension. (One per-station maximum.)
call-pkup	Call Pickup	Call Pickup: used to pickup a call that is ringing in the users pickup group. (One per-station maximum.)
callr-info	Caller Info	Caller Information (<i>display button</i>): used with the Call Prompting feature to allow the user to display information (that is, digits) collected from the originator. (One per-station maximum.)
cas-backup	CAS Backup	Centralized Attendant Service Backup Mode: used to redirect all CAS calls to a backup extension in the local branch if all RLTs are out-of-service or maintenance busy. The associated status lamp indicates if CAS is in the backup mode. (One per-station maximum.)
check-in † ‡	Check In	Check In (<i>display button</i>): used to change the state of the associated guest room to "occupied" and turn off the outward calling restriction for the guest room's station. (One per-station maximum.)
check-out † ‡	Check Out	Check Out (<i>display button</i>): used to change the state of the associated guest room to "vacant" and turn on the outward calling restriction for the guest room's station. Also clears (removes) any wake-up request for the station. (One per-station maximum.)
clk-overid ‡	Clocked Override	Clocked Manual Override (<i>display button</i>): used in association with the Time of Day Routing feature to override the routing plan in effect for the activating user's partitioned group number. The routing plan is overridden for a specified period of time. (One per-station maximum.)

† The Hospitality feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
consult	Consult	Consult used by a covering party, after answering a coverage call, to call the principal (called party) for private consultation. This places the calling party on hold. (One per-station maximum.)
cov-cback	Coverage Callback	Coverage Callback used by a covering party to leave a message for the principal (called Party) to call the calling party. (One per-station maximum.)
cov-msg-rt ‡	Covr Msg Retrieve	Coverage Message Retrieval (<i>display button</i>): used to place a covering station into the message retrieval mode for the purposes of retrieving messages for the group. (One per-station maximum.)
data-ext	Data (data ext #)	Data Extension; used to setup a data call. May be used to pre-indicate a data call or to disconnect a data call. (One per data extension group; otherwise, no per-station maximum.) May not be a VDN or BRI extension. Not allowed on a BRI station.
date-time ‡	Date Time	Date Time Display (<i>display button</i>): used to display the current date and time. (One per-station maximum.)
delete-msg ‡	Delete Message	Delete Message (<i>display button</i>): used to delete a stored message that is currently on the station's display. (One per-station maximum.)
dial-icom	Dial Icom	Dial Intercom: used to access the intercom group assigned to the button. (One per group; otherwise, no per-station maximum.)
directory ‡	Integrtd Directory	Directory (<i>display button</i>): used to place the station's display in the integrated directory mode allowing the user to search for any system user. (One per-station maximum.)
dn-dst †	Do Not Disturb	Do Not Disturb: used to place the user in the do not disturb mode. (One per-station maximum.)
ds1-alarm	DS1 (facility)	DS1 Alarm: associated status lamp lights if an off-board major, minor, or warning alarm is active on a DS1 circuit pack. Off-board alarms (for example, loss of signal, slips, misframes) relate to problems on the facility side of the DS1 interface.
exclusion	Exclusion	Exclusion: used to prevent any other user from bridging onto the current call. (One per-station maximum.)
ext-dn-dst † ‡	Do Not Disturb Ext	Extinguish Do Not Disturb (<i>display button</i>): used to remove the user from the do not disturb mode. (One per-station maximum.)

† The Hospitality feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
flash	Flash	Flash; used for two types of calls: 1) allows a station on a trunk call with Trunk Flash enabled to send a Trunk Flash signal to the far end (for example, CO); 2) allows a station on a CAS main call to send a Trunk Flash signal over the connected RLT trunk back to the branch to conference/transfer the call on the branch. (One per station maximum.)
goto-cover	Go To Cover	Go To Coverage: used to send a call directly to coverage instead of waiting for the called inside user to answer. (One per-station maximum.)
grp-dn-dst † ‡	Do Not Disturb Grp	Group Do Not Disturb (display button): used to remove a group of users from the do not disturb mode. (One per-station maximum.)
hunt-ns *	Hunt Group	Hunt-Group Night Service: used to place a hunt-group into night service. (One per hunt group maximum.)
in-call-id	Coverage (group # type, name, or ext #)	Incoming Call Identification: used to identify the hunt or coverage answer group associated with the current incoming call. (One per group type per group otherwise, no per-station maximum.)
inspect ‡	Inspect Mode	Inspect (display button): used to display the extension number of the current ringing call, or the extension behind a subsequently pressed call appearance button. (One per-station maximum.)
last-numb	LastNumb Dialed	Last Number Dialed: used to originate a call to the number last dialed by the station user. (One per-station maximum.)
link-alarm	Link Failure (link #)	Link Alarm: associated status lamp is used to indicate that a failure has occurred on one of the Processor Interface circuit pack data links. (One to eight per-station maximum.)
lsvn-call ‡	Login Security Violation Not Notification call	SVN Login Violations Notification (display button): associated lamp indicates whether or not that destination is able to receive lsvn referral calls, When button is activated, lamp will light. (One per-system maximum.)
lwc-cancel	Cancel LWC	Leave Word Calling Cancel: used to cancel the last leave word calling message originated by the user. (One per-station maximum.)
lwc-lock	Lock LWC	Leave Word Calling Lock: used to lock the message retrieval capability of the display module on the station. (One per-station maximum.)
lwc-store	LWC	Leave Word Calling Store: used to leave a message for the user associated with the last number dialed to return the call to the originator. (One per-station maximum.)
major-alm	Major Hdwe Failure	Major Alarm: associated status lamp is used to indicate that a vital system hardware component(s) has failed. This type of alarm represents a disruption of overall System performance. (One per-station maximum.)

* The Automatic Call Distribution feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

† The Hospitality feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
man-msg-wt	Msg Wait (name or ext #)	Manual Message Waiting used to turn on a message waiting lamp on the station associated with the button. Note that the Manual Message Waiting button may not point to a VDN. (No per-station maximum.)
man-overid *	Immediate Override	Immediate Manual Override (<i>display button</i>): used in association with the Time of Day Routing feature to temporarily override the routing plan in effect for the activating user's partitioned group number. The routing plan is overridden upon activation. (One per-station maximum.)
manual-in *	Manual In	Manual-In Mode: used to prevent the user from becoming available for new ACD call upon completion of an ACD call by automatically placing the agent in the after call work mode. (One per split group; otherwise, no per-station maximum.)
mj/mn-almr	Major/Minor Hdwe Failure	Minor Alarm: associated status lamp is used to indicate that a System hardware component has failed that will disrupt service on a limited scale. (One per-station maximum.)
msg-retr ‡	Message Retrieve	Message Retrieval (<i>display button</i>): used to place the station's display into the message retrieval mode. (One per-station maximum.)
mwn-act †	Message Waiting Act.	Message Waiting Activation (supports PMS feature): used to turn on a message waiting lamp on an associated station. (One per-station maximum.)
mwn-deact †	Message Waiting Deact	Message Waiting Deactivation (supports PMS feature): used to turn off a message waiting lamp on an associated station. (One per-station maximum.)
next ‡	Next	Next Message (<i>display button</i>): used to step to the next message when the station's display is in message retrieval mode. (One per-station maximum.)
night-serv	Night Serv	Night Service Activation: used to place the System into or out of the night service mode. (One per-system maximum.)
normal ‡	Normal Mode	Normal (<i>display button</i>): used to place the station's display into the normal call identification mode. (One per-station maximum.)
per-COline	CO Line (line #)	Personal CO Line: allows the user to receive calls directly via a specific trunk. (One per group; otherwise, no per-station maximum.)

* The Automatic Call Distribution feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

† The Hospitality feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
pms-alarm	PMS Failure	PMS Alarm: associated status lamp is used to indicate that a failure in the PMS has occurred. A major or minor alarm condition will raise the alarm. (One per-station maximum.)
pr-awu-alm	Auto Wakeup Alm	Automatic Wakeup Printer Alarm: associated status lamp is used to indicate that an automatic wakeup printer interface failure has occurred. (One per-station maximum.)
pr-pms-alm	PMS Ptr Alarm	PMS Printer Alarm: associated status lamp is used to indicate that a PMS printer interface failure has occurred. (One per-station maximum.)
pr-sys-alm	Sys Ptr Alarm	System Printer Alarm: associated status lamp is used to indicate that a System Printer (dedicated to Report Scheduler feature) interface failure has occurred. (One per-station maximum.)
print-msgs	Print Msgs	Print Messages: allows the user to print messages for any extension by pressing the button and then entering the extension number and a security code (if one assigned). (One per-station maximum.)
priority	Priority Call	Priority Calling: allows the user to place a priority call by pressing the button and then dialing an extension, or change an existing call to a priority call by pressing the button after the extension has been dialed. (One per-station maximum.)
q-calls *	NQC	Queue Calls: associated status lamp flashes if a call warning threshold has been reached. (One per hunt group per-station maximum.)
q-time *	OQT	Queue Time: associated status lamp flashes if a time warning threshold has been reached. (One per hunt group per-station maximum.)
release	Release	Release: used to release an agent from an ACD call. (One per station.)
ringer-off	Ringer Cutoff	Ringer-Off: used to silence the alerting ringer on the station. (One per-station maximum.)
rs-alert	System Reset Alert	System Reset Alert: the associated status lamp will light if the System has a problem that escalates beyond a warm start. (One per-station maximum.)
rsvn-call ‡	Remote Security Violation Notification Call	SVN Remote Access Violations Notification (<i>display button</i>): associated lamp indicates whether or not that destination is able to receive lsvn referral calls. When button is activated, lamp will light (One per-system maximum.)
send-calls	Send All Calls	Send All Calls: used to send all calls to coverage as soon as they terminate at the station. (One per-station maximum.)
send-term	Send All Calls-TEG	Send All Calls For Terminating Extension Group: allows the user to forward all calls directed to a terminating extension group. (One per group; otherwise, no per-station maximum.)

* The Automatic Call Distribution feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
serv-obsrv *	Service Observing	Service Observing: activates the Service Observing feature. Used to toggle between a listen-only and a listen-talk mode. Deactivate by hanging up or pressing another call-appearance button. (One per-station maximum.)
signal	Signal (name or ext #)	Signal: allows the user to manually signal (via ringing) a station associated with the button. Note that the button cannot point to a VDN. (One per signal extension maximum; otherwise, no per-station maximum.)
smdr1-alm	SMDR 1 Failure	SMDR Alarm: associated status lamp is used to indicate that a failure in the interface to the primary SMDR output device has occurred. (One per-station maximum.)
smdr2-alm	SMDR 2 Failure	SMDR Alarm: associated status lamp is used to indicate that a failure in the interface to the secondary SMDR output device has occurred. (One per-station maximum.)
stored-num ‡	Stored Number	Stored Number (<i>display button</i>): used to place the station's display into the stored number mode. This allows the user to query button translations and display associated stored numbers. (One per-station maximum.)
stroke-cnt *	Stroke _	ACD stroke count: allows an agent to send a message to the CMS to intercept a stroke count number. Up to 10 Stroke Count buttons (each associated with a different code number zero through nine) may be administered on a voice terminal.
term-x-gr	Term Grp (name or ext #)	Terminating Extension Group: used to provide one or more extensions (may not be a VDN extension) for a station. Calls may be received but not originated with this button. (One per group; otherwise, no per-station maximum.)
timer ‡	Timer	Timer (<i>display button</i>): used to start a clock on the station to display elapsed time. (One per-station maximum.)
trk-ac-alm	FTC Alarm	Facility Test Call Alarm: associated status lights when a successful Facility Test Call (FTC) has occurred. Pressing an FTC button (up to 10 may be administered) when its status lamp is lighted will turn off all FTC status lamps whether or not the FTC is still in progress or has completed. FTC access is controlled via COR assignment. The status lamp provides an indication that a FTC has occurred.
trk-id *	Trunk ID	Trunk Identification (<i>display button</i>): used to identify the tac (trunk access code) and trunk member number associated with a call. (One per-station maximum.)

* The Automatic Call Distribution feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-O (continued).
Voice Terminal Feature Button Descriptions

ADMINISTRATION NAME	BUTTON LABEL	DESCRIPTION
trunk-name ‡	Trunk Name	Trunk Name (<i>display button</i>): used to display the name of the trunk as administered on the CAS Main or on a switch without CAS. (One per-station maximum.)
trunk-ns *	Trunk Grp	Trunk-Group Night Service: used to place a trunk-group into night service. (One per trunk-group maximum.)
verify	Verify	Busy Verification: allows the user to make test calls and check the condition of a station, stations in a hunt group, or a trunk and quickly identify faulty equipment. (One per-station maximum.)
work-code *	Work Code	Call Work Code: allows an ACD agent after pressing “work-code” to send up to 16 digits (using the dial pad) to CMS. The data is associated with a current ACD call, and may represent account codes, social security numbers, or telephone numbers, for example. (One per-station maximum.)

* The Automatic Call Distribution feature must be enabled on the System-Parameters Customer-Options form before the feature button can be administered.

‡ The voice terminal must be equipped with a display before the feature button can be administered.

TABLE 6-P. Voice Terminal Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Abbreviated Dialing	AD	abrv-dial (list: _ D C : _)	1 per list/DC	1
	AbrvDial Mark	abr-spchar (Char:~m)	1	
	AbrvDial Pause	abr-spchar (Char:~p)	1	
	AbrvDial Program	abr-prog	1	
	AbrvDial Suppress	abr-spchar (Char:~s)	1	
	AbrvDial Wait	abr-spchar (Char:~w)	1	
Abbreviated Dialing [display button]	Stored Number	stored-num	1	2
Administered Connection [status lamp]	AC Alarm	ac-alarm	1	
Automatic Call Distribution	After-Call Work	after-call (Grp. _)	1 per split group	3
	Assist	assist (Grp. _)	1 per split group	3
	Auto In	auto-in (Grp. _)	1 per split group	3
	Auxiliary Work	aux-work (Grp. _)	1 per split group	3
	Manual-In	manual-in (Grp. _)	1 per split group	3
	Release	release	1	
	Work Code	work-code	1	
	Stroke _	stroke-cnt (Code:_)	10 per terminal	17

* Refer to the previous table ("Voice Terminal Feature Button Descriptions") for feature button descriptions and notes.

† See Notes at end of table.

TABLE 6-P (continued).
Voice Terminal Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Automatic Callback	Auto Callback	auto-cback	1	
Automatic Circuit Assurance	Auto-ckt Assure	aca-call	1	
Auto Wakeup [display button]	Auto Wakeup	auto-wkup	1 per split group	2
Bridged-Call Appearance	<i>Extension</i>	brdg-appr	N	
	<i>Extension</i>	abrdg-appr	N	
Busy Verification	Verify	verify	1	
Call Appearance	<i>Extension</i>	call-appr	‡	
Call Coverage	Consult	consult	1	
	Coverage Callback	cov-cback	1	
	Send All Calls-TEG	send-term (Grp: _)	1 per Grp.	
	Go to Cover	goto-cover	1	
	Send All Calls	send-calls	1	
Call Coverage [display button]	Covr Msg Retrieve	cov-msg-rt	1	2
Call Forwarding	Call Forwarding	call-fwd	1	
Call Park	Call Park	call-park	1	
Call Pickup	Call Pickup	call-pkup	1	

* N = any number of buttons on the voice terminal can be assigned to this feature. Refer to the previous table ("Voice Terminal Feature Button Descriptions") for feature button descriptions and notes.

† See Notes at end of table.

‡ Refer to specific voice terminal information provided later in this Chapter for maximum allowed.

TABLE 6-P (continued).
Voice Terminal Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes ‡
Call Prompting [display button]	Caller Info	callr-info	1	
Centralized Attendant Service	CAS-Backup	cas-backup	1	
	Flash	flash	1	18
Data Call Setup	Data (data extension #)	data-ext (Ext: __)	1 per Ext.	
Date and Time [display button]	Date Time	date-time	1	2
Demand Print	Print Msgs	print-msgs	1	
Do Not Disturb	Do Not Disturb	dn-dst	1	
Do Not Disturb [display buttons]	Do Not Disturb Ext	ext-dn-dst	1	2
	Do Not Disturb Grp	grp-dn-dst	1	2
Elapsed Time [display button]	Timer	timer	1	2
Facility Busy Indication [status lamp]	Busy (trunk or extension #)	busy-ind~(TAC/Ext: __)	1 per TAC/Ext.	4
Facility Test Calls [status lamp]	FTC Alarm	trk-ac-alm	10 per system	

* N = any number of buttons on the voice terminal can be assigned to this feature. Refer to the previous table ("Voice Terminal Feature Button Descriptions") for feature button descriptions and notes.

‡ See Notes at end of table.

TABLE 6-P (continued).
Voice Terminal Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Hardware Failure [status lamps]	Major Hdwe Failure	major-alm	10 per system	
	Major/Minor Hdwe Failure	mj/mn-alm	10 per system	
	DS1 (facility)	ds1-alarm	10 per system	
	PMS Failure	pms-alarm	1	
	PMS Ptr Alm	pr-pms-alm	1	
	SMDR 1 Failure	smdr1-alm	1	
	SMDR 2 Failure	smdr2-alm	1	
	Auto Wakeup Alm	pr-awu-alm	1	
	Sys Ptr Alm	pr-sys-alm	1	
Inspect [display button]	Inspect Mode	inspect	1	2
Integrated Directory [display-button]	Integrtd Directory	directory	1	2
Intercom-Automatic	Autolcom (name or extension #)	auto-icom G r p : _ DC: _)	1 per Grp/DC	5
Intercom-Dial	Diallcom	dial-icom (Grp: _)	1 per Grp.	6
Last-Number Dialed _ Leave Word Calling	LastNumb Dialed	last-numb	1	
	LWC	lwc-store	1	
	Cancel LWC	lwc-cancel	1	
	Lock LWC	lwc-lock	1	

* Refer to the previous table ("Voice Terminal Feature Button Descriptions") for feature button descriptions and notes.

† See Notes at end of table.

TABLE 6-P (continued).
Voice Terminal Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Leave~Word Calling~(Remote Message Waiting) [status lamp]	Message (name or extension #)	aut-msg-wt (Ext: __)	1 per Ext.	7
Leave Word Calling [display buttons]	Return Call	call-disp	1	2
	Message Retrieve	msg-retr	1	2
	Next	next	1	2
	Delete Message	delete-msg	1	2
Link Failure [status lamp]	Link Failure (Link No. __)	link-alarm (Link # __)	1 per Link #	8
Manual Signaling	Signal (name or extension #)	signal (Ext: __)	1 per Ext.	16
Manual Message Waiting	Msg Wait (name or extension #)	man-msg-wt (Ext: __)	1 per Ext.	9
Night Service	Night Serv	night-serv	1	
	Hunt Group	hunt-ns (Grp. __)	1 per Grp.	10
	Trunk Grp.	trunk-ns (Grp. __)	1 per Grp.	11
Normal Mode [display button]	Normal Mode	normal	1	2
Personal Central Office Line	CO Line (telephone #)	per-COline (Grp: __)	1 per Grp.	12

* N = any number of buttons on the voice terminal can be assigned to this feature. Refer to the previous table ("Voice Terminal Feature Button Descriptions") for feature button descriptions and notes.

† See Notes at end of table.

TABLE 6-P (continued).
Voice Terminal Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
PMS Interface [display button]	Check-In	check-in	1	2
	Check-Out	check-out	1	2
	Message Waiting Act.	mwn-act	1	2
	Message Waiting Deact.	mwn-deact	1	2
Priority Calling	Priority Call	priority	1	
Privacy—Manual Exclusion	Exclusn	exclusion	1	
Queue Status Indications [status lamps]	NQC	q-calls (Grp:_)	1 per hunt group	13
	OQT	q-time (Grp:_)	1 per hunt group	13
Queue Status Indications [display buttons]	AQC	atd-qcalls	1	
	AQT	atd-qtime	1	
Ringer Cutoff	Ringer Cutoff	ringer-off	1	
Security Violation Notification [display buttons]	Login SVN	lsvn-call	1 per system	
	Remote SVN	rsvn-call	1 per system	
Service Observing ‡	Service Observing	serv-obsrv	1	
System Reset Alert	System Reset Alert [status lamp]	rs-alert	1	
Terminating Extension Group	Term Grp (name or extension #)	term-x-gr (Grp:___)	1 per Grp.	14

* Refer to the previous table (“Voice Terminal Feature Button Descriptions”) for feature button descriptions and notes.

† See Notes at end of table.

‡ The use of service observing features may be subject to federal, state, or local laws, rules or regulations or require the consent of one or both of the parties to the conversation. Customers should familiarize themselves with and comply with all applicable laws, rules and regulations before using these features.

TABLE 6-P (continued).
Voice Terminal Feature Button Characteristics

Feature Or Function	Recommended Button Label	Name Entered On Station Form	Maximum Allowed*	Notes †
Time-of-Day Routing [display buttons]	Immediate Override	man-overid	1	2
	Clocked Override	clk-overid	1	2
Trunk Identification [display button]	Trunk-ID	trk-id	1	2
Trunk Group Name [display button]	Trunk-Name	trunk-name	1	2
UCD/DDC	Auxiliary work	aux-work (Grp: _)	1 per Grp.	
UCD/DDC/Intraflow Call-Coverage (Answer Group)	Coverage (group number, type or name or ext #)	in-call-id (Type: _ Grp: _)	1 per Type/Grp.	15

* Refer to the previous table ("Voice Terminal Feature Button Descriptions") for feature button descriptions and notes.

† See the following Notes.

Notes:

- List: List number 1 to 3 where the destination number is stored.

DC: Dial codes of destination number.
- Display-type buttons may be administered if the voice terminal is equipped with the optional Digital Display or alphanumeric display.
- Grp: The split group number for ACD (1 to 99).
- TAC/Ext: Trunk or extension number of voice terminal to be monitored.
- Grp: Dial Icom group number (1 to 32). This extension and destination extension number must be in the same group.
- Grp: Dial Icom group number (1 to 32).

TABLE 6-P (continued).
Voice Terminal Feature Button Characteristics

Notes:

7.	Ext:	Extension number of principal. (Maybe a VDN extension.)
8.	Link	Link number—1 to 8 for multi-carrier cabinets or 1 to 4 for single-carrier cabinets.
9.	Ext:	The destination extension. (May be a VDN extension.)
10.	Grp:	Hunt group number (1 to 99).
11.	Grp:	Trunk group number (1 to 99).
12.	Grp:	CO line group number (1 to 40).
13.	Grp:	Group number of hunt group.
14.	Grp:	TEG Number (1 to 32).
15.	Type:	A “c” for coverage answer group, “h” for a uniform call distribution, or direct department calling group.
	Grp:	The number of the group (1 to 100 for “c,” one to 99 for “h”).
16.	-	The extension may not be a VDN extension.
17.	Code:	Stroke count number (0 through 9).
18.	Flash:	Not administrable on Attendant Consoles.

Station Forms—Field Descriptions

The following provides descriptions of the fields that are displayed on the various pages of the station forms. Some of the fields are only used for specific voice terminal types; others are used for all terminals. Fields and/or pages of the form that require unique consideration are covered where appropriate with the respective voice terminal coverage. The descriptions are organized by form page number and listed alphabetically within each grouping for easy access.

Page 1 of the Form

- **Adjunct Supervision**— Enter “y” if an analog disconnect signal will be automatically sent to the port after a call is terminated. This signal is used by analog devices such as answering machines and speakerphones to turn the devices off after a call has terminated. In a hunt group environment, however, this signal blocks the reception of zip tone and incoming call notification by an auto answer station when a call is queued for the station. In these environments, set this field to “n” so that hunt group agents will be alerted to an incoming call. Valid entries are “y” (default) or “n.”
- **Att. Call Waiting Indication**— Enter “y” (default) to assign the Attendant Call Waiting feature to the voice terminal. This allows attendant originated and extended calls to a busy single-line voice terminal to wait and sends a distinctive two-burst call waiting tone to the single-line user. Use of the feature is denied if the Data Restriction field is “y” or the Switchhook Flash field is “n,” or if via the voice terminal’s COS assignment, the Data Privacy feature is active. Valid entries are “y” or “n.” Default is “y.”
- **Auto Answer**— Enter “y” if this terminal has Auto Answer; otherwise, enter “n.” Auto Answer indicates if an incoming call will be automatically answered without any action by the user (that is, by an Automatic Call Distribution agent). Default is “n.”
- **BCC**— Display-only field set to “0” (default) for stations (that is, indicates voice or voice-grade data). Only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Note: Refer to the GRS feature description in *DEFINITY® Communications System Generic 1 and Genetic 3i—Feature Description*, 555-230-201, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls. The BCC value is used to determine compatibility when non-ISDN-PRI facilities are connected to ISDN facilities (ISDN-PRI Interworking feature).

- **Bridged Call Alerting**— Enter “y” to allow incoming calls on bridged appearances of another terminal’s primary extension number, TEG calls, or PCOL calls, otherwise, enter “n.” Default is “n.”
- **Call Waiting Indication**— Enter “y” to activate the Call Waiting Termination feature for the voice terminal. This allows other voice terminal, attendant-originated, and outside calls to busy single-line voice terminals to wait and sends a distinctive call waiting tone to the single-line user. Use of the feature is denied if the Data Restriction field is “y” or the Switchhook Flash field is “n,” or if via the voice terminal’s COS assignment, the Data Privacy feature is active. Valid entries are “y” or “n.” Default is “y.”

- **COR**— Enter a Class of Restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is “1.”
- **COS**— Enter the desired Class of Service (COS) number from 0 through 15 to designate allowed features. See COS form (Chapter 6) for additional information. Default is “1.”
- **Coverage Msg Retrieval**— Enter a “y” to allow a user in the voice terminal's Coverage Path to retrieve Leave Word Calling (LWC) messages for this voice terminal. This field only applies if the voice terminal is marked for LWC Reception. Default is “y.”
- **Coverage Path**— Enter a coverage path number (1 through 600) from a previously administered Call Coverage Path form. Leave blank if no coverage is desired.
- **Data Module**— Indicates if a data module is to be administered with the voice terminal. Enter “y” or “n.” Default is “n.” If a “y” is entered, then Page x of the Form is displayed. See below.
- **Data Restriction**— Enter “y” to prevent tones, such as Call Waiting Tones, from interrupting this user's calls. Data restriction provides permanent protection and cannot be changed by the voice terminal user. Default is “n.”
- **Distinctive Audible Alert**— Enter “y” so the voice terminal can receive the three different types of ringing patterns that identify the type of incoming calls. Features that provide distinctive ringing might function improperly toward an off-premises voice terminal. Enter “n” if this feature is not desired. Default is “y.”
- **Endpt Init**— Only displayed if the MIM Support field entry is “y.” Indicates terminal's endpoint initialization capability. The endpoint initialization procedure, required for multipoint operation, associates the USOP translation belonging to the extension with the Physical endpoint on the BRI interface. This association is made via the SPID that has been administered on the System and entered into the BRI terminal. This implies that in order for a BRI terminal to become operational in the multipoint configuration, both the administered SPID and the SPID programmed into the BRI terminal must be the same. Therefore, the SPID of a new or re-used terminal must be programmed to match the administered SPID value. For information on SPID installation, refer to “Appendix A.” Allowable entries are “y” or “n.” Default is “y.”
- **Extension**— When completing a blank paper form, enter a valid extension number (1 through 5 digits) that agrees with the dial plan. When implementing the form, “Extension” is part of the input command used to access the form and is a display-only field.
- **Fixed TEI**— indicates if the endpoint has a fixed Terminal Endpoint Identifier (TEI). This field only appears for ISDN BRI stations and data modules. The TEI identifies a unique access point within a service. For terminals with the automatic TEI capability, the system dynamically assigns the TEI. Therefore, for the freed TEI terminals, TEIs must be administered. Allowable entries are “y” or “n.” Default is “n.” If a “y” is entered, then the TEI field is displayed.
- **Idle Appearance Preference**— Enter “y” or “n” (default) to indicate which call appearance is selected when the user lifts the handset and there is an incoming call. If “y” is entered, the Idle Appearance Preference is set and the user is connected to an idle call appearance instead of the ringing call. If “n” is entered, Alerting Appearance Preference is set and the user is connected to the ringing call appearance.

- **LWC Activation**— Enter “y” to allow internal voice terminal users to leave short LWC messages for this terminal. If the system has the hospitality features, enter “y” for voice terminals in the guest rooms if the terminal designated to receive failed wakeup messages is to receive LWC messages indicating incomplete wakeup calls. Enter “y” if “audix” was entered for LWC Reception. Default is “y.”
- **LWC Reception**— Enter “msa-spe” if LWC messages are stored in the system or on the Messaging Server Adjunct—Switch Processor or enter “audix” if the messages are stored on the Audio Information Exchange System; otherwise, enter “none.” Default is “msa-spe.”
- **Lock Messages**— Enter “y” to restrict other users from reading or canceling the voice terminal messages or retrieving messages via Voice Message Retrieval; otherwise, enter “n.” Default is “n.”
- **Message Waiting Indicator**— (Applies to 500, 2500, and 7104A voice terminals only.) Enter “led” if the message waiting indicator is a LED or “neon” if the indicator is a neon light waiting indicator.
- **MIM Mtce/Mgt**— Only displayed if the MIM Support field entry is “y.” Used to indicate if the terminal supports MIM Maintenance and Management capabilities other than endpoint initialization. Valid entries are “y” (yes) or “n” (no). Default is “y.”
- **MIM Support**— (Management Information Message Support) Used to support two types of capabilities: (1) MIM endpoint initialization capability (SPID support) and (2) other Maintenance/Management capability. Valid entries are “y” or “n.” Default is “y.” This field only appears for an ISDN-BRI data module. If “y” is entered, the following dependent fields appear: Endpt Init and MIM Mtce/Mgt.
- **Name**— Enter the name of person associated with this voice terminal. Up to 15 characters can be used. This field can be shared with a Room #. The name assigned to a voice terminal remains with that voice terminal until it is changed.

The Integrated Directory feature lists the names as they should be entered on the forms. Names can be entered in all uppercase letters, all lowercase letters, or a mixture of uppercase and lowercase letters. Also, the first or last name can be entered first and a middle name or initial can be used. Spaces or commas can be used between names. For systems using a 3B2 Messaging Server Adjunct, the last name must be the first entry.

Periods, hyphens, apostrophes, or other special characters, if used, are discarded by the system when the name is entered into the database. The following examples show formats that are required in order for the name to be retrieved by the Integrated Directory feature. Note also that this field can be any printable character string or can be left blank.

— Bill J Doe

— Doe,Bill J

— Bill Doe

- **Off Premise Station**— Enter “y” if this voice terminal is not located in the same building with the system. Enter “n” if the voice terminal is located in the same building with the system. If “y” is entered, the R Balance Network field must be completed. Default is “n.”

- **Personalized Ringing Pattern**— Enter a Personalized Ringing Pattern, 1 through 8, as follows (default is “1”):

Ring Pattern	Tone Sequence
1	MMM (standard ringing)
2	HHH
3	LLL
4	LHH
5	HHL
6	HLL
7	HLH
8	LHL

L = 530Hz, M = 750Hz, and H = 1060Hz

- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is “1” if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 24). For DCP sets, the port may only be assigned once. BRI provides multipoint configuration capability which allows a previously assigned port to be specified more than once as follows: two stand-alone voice endpoints, two stand-alone data endpoints, or one integrated voice and data endpoint.

Note: A 1-character entry of “X” in the Port field maybe used to indicate that there is no hardware associated with the port assignment (that is, Administration Without Hardware feature). This permits preadministration of stations that will be implemented at a later time. These stations are referred to as “phantom stations.” The BRI interface does not support this capability.

- **R Balance Network**— Enter “y” to select the R Balance Capacitor network, or “n” to select the standard resistor capacitor network. This field must be completed if “y” was entered in the Off Premise Station field. Enter “n” when the station port circuit is connected to terminal equipment (for example, SLC carriers or impedance compensators) optioned for 600 ohm input impedance and the distance to the terminal equipment from the system is less than 3000 feet. Enter “y” in all other cases. Default is “n.”
- **Redirect Notification**— Enter “y” to give a half ring at this voice terminal when calls to this terminal are redirected (via Call Forwarding or Call Coverage). Enter “y” if audix was entered for LWC Reception. Default is “y.”
- **Restrict Last Appearance**— Enter “y” to restrict the last idle call appearance for incoming priority calls and outgoing call originations only; otherwise, enter “n.” Default is “y.”
- **Security Code**— Enter a 4-digit security code required by users to retrieve messages via the Demand Print or Voice Message Retrieval feature.
- **SMDR Privacy**— An administrable option which allows digits in the called number field of an outgoing call to be blanked, on a per-station basis. The number of blocked digits is administered system-wide in the “Privacy—Digits to Hide” field on the Feature-Related System Parameters form. Enter “y” to enable the call privacy feature for each station. Default is “n”.

- **Switchhook Flash**— Enter “y” to allow users to use the switchhook flash function to activate the Conference/Transfer/Hold and Call Waiting features; otherwise, enter “n.” An “n” entered in this field disables the flash function, and when the switchhook is pressed while active on a call, the call will be dropped. If this field is set to “n,” the Call Waiting Indication field must be set to “n.” Default is “y.”
- **TEI**— Only displayed if “y” is entered in Fixed TEI field. Enter a 1- or 2-digit number in the range of 0 through 63. Default is blank.
- **Type**— Enter the voice terminal type.
- **XID**— Used to identify layer two XID testing capability. Valid entries are “y” (yes) or “n” (no). Default is “y.” This field only appears for an ISDN-BRI data module.

Page 2 of the Form

- **Abbreviated Dialing List 1:, List 2:, List 3:**— Enter “p” for personal, “s” for system, “g” for group, or “e” for enhanced. Up to three AD lists can be accessed by the voice terminal. If “p” or “g” is entered, a personal list number or a group number, respectively, is also required.
- **Button Assignments**— The feature buttons that can be assigned to voice terminals are listed with each terminal's coverage. Depending on the button type, additional auxiliary information may be required when administering buttons. For example, since the Login Security Violation Notification and Remote Access Security Violation Notification Referral Destination buttons can only be administered on voice terminals equipped with display, refer to appropriate voice terminal coverage in this chapter for instructions.
- **Cable**— Enter up to five characters to identify the cable number that connects the voice terminal jack to the system. This field may be left blank. This information can also be entered in the Blank column on the Port Assignment Record.
- **Headset**— Enter “y” if this terminal has a headset; otherwise, enter “n” (default).
- **Jack**— Enter up to five characters that are used to identify the jack location where the voice terminal is connected. This field may be left blank. See the Port Assignment Record.
- **Room**— Enter up to 10 characters to identify the voice terminal's location. See the Port Assignment Record (Chapter 2). This field may be blank.

If this station is one of several to be assigned a guest room and the Hospitality-Related System Parameters form has “y” entered in the “Display Room Information in Call Display” field, enter up to five characters in the Room field to identify the guest room number.

Page x of the Form—Data Module

- **Abbreviated Dialing List 1:**— Enter “p” for personal, “s” for system, “g” for group, or “e” for enhanced. If “g” or “p” is entered, a group number or personal list number respectively is also required. The entry in this field and the HOT LINE DESTINATION field support the Data Hot Line feature.
- **Assigned Member—Ext**— Make no entry. The extension number is automatically assigned when the system is administered. This is the extension number of the user who has an associated Data Extension button and will share the module.
- **Assigned Member—Name**— Display-only field. Contains the name assigned to the Assigned Member—Ext number.
- **BCC**— Display-only field. Only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Note: Refer to GRS in *DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description, 555-230-201*, for a detailed description of BCCs and their use to provide specialized routing for various types of voice and data calls. The BCC value is used to determine compatibility when non-ISDN-PRI facilities are connected to ISDN facilities (ISDN-PRI Inter-working feature).

- **ITC (Information Transfer Capability)**— Used by the GRS feature and enables the system to route calls to restricted or unrestricted facilities according to the endpoint’s information transfer capability. Default is restricted.
- **COR**— Enter the desired Class of Restriction (COR) number from 0 through 63 that reflects the desired restriction. Default is “1.”
- **COS**— Enter the desired Class of Service (COS) number (0 through 15) to designate allowed features. Refer to COS form for additional information on the allowed features. Default is “1.”
- **Data Extension**— Enter the extension number assigned to the data module. A data extension can be a 1-to 5-digit number and must agree with the System’s Dial Plan.
- **Default Dialing Abbreviated Dialing Dial Code From above list**— only displayed when the Special Dialing Option field is “default.” Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook and enters a carriage return following the “DIAL” prompt. The data call originator can also perform data terminal dialing by specifying a dial string that may or may not contain alphanumeric names.
- **Hot Line Destination**— Abbreviated Dialing Dial Code— Only displayed when the SPECIAL DIALING OPTION field is “hot-line.” Enter a list number (associated with the above AD List) from 0 through 999. The associated AD number will be dialed when the user goes off-hook on a Data Hot Line call.
- **Name**— Enter the name of the user associated with the data module. The name is optional, it can be left blank.
- **Special Dialing Option**— Enter 1 of 3 dialing options that are available. This identifies the type of dialing for calls when this data module originates calls. Valid entries are “hot-line,” “default,” or leave blank for regular (normal) keyboard dialing.

- **Circuit Switched Data Attributes**— The following fields only appear on the BRI Data Module Form:
 - **Default Duplex**— Used to identify the duplex mode. Valid entries are “full” or “half.” Default is “full.”
 - **Default Mode**— Used to identify the data mode. Valid entries are “sync” (synchronous) or “async” (asynchronous). Default is “asyn.”
 - **Default Speed**— Used to identify the data rate. Valid entries are “1200,” “2400,” “4800,” and “19200.” Default is “1200.”
- **Data Module Capabilities**— The following fields only appear on the BRI Data Module Form:
 - **Origination Default Data Applications**— Used to identify mode to be used for originating data calls when the mode is not specified with the calling parameters. This mode will also be used for terminating trunk calls which do not have bearer capability specified or administered connections. Possible mode values are M0 (mode 0), M1 (mode 1), M2 (mode 2), and M3/2 (mode 3/2 adaptable), or blank. Valid entries are “M0,” “M1,” “M2_A,” “M2_S,” or “M3/2.” Default is “M2_A.”

10-, 20-, and 30-MET Voice Terminals

Purpose

This form is used to implement 10-, 20-, and 30-MET voice terminals.

Administration Commands

The following administration commands can be used to access the Voice Terminal form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600) port ['ptint' or 'schedule']
remove	station	[xxxxx] (extension number)

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the “Voice Terminals—General” information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided in the “Voice Terminals—General” section. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type—** Enter “10MET,” “20MET,” or “30MET” as appropriate.

Page 2 of the Form

- **Button Assignments**

The feature buttons that can be assigned to the 10/20/30 MET sets are listed below. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-call
- after-call
- assist
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-fwd
- call-park
- call-pkup
- cas-backup
- consult
- cov-cback
- data-ext
- dial-icom
- dn-dst
- ds1-alarm
- exclusion
- flash
- goto-cover
- hunt-ns
- in-call-id
- last-numb
- link-alarm
- lwc-cancel
- lwc-store
- major-alm
- man-msg-wt
- manual-in
- mj/mn alm
- night-ser
- per-COline
- pros-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1 -alm
- smdr2-alm
- stroke-cnt
- term-x-gr
- trk-ac-alm
- trunk-ns
- verify

The figures entitled “10-MET Voice Terminal,” “20-MET Voice Terminal,” and “30-MET Voice Terminal” respectively, which appear at the end of this section dealing with MET Voice Terminals, show the voice terminal button number assignments in relation to the button numbers on the associated Voice Terminal Forms. The first three buttons are defaulted as call appearance.

Page 3 of the Form (20-and 30-MET Only)

• Feature Button Assignments

The feature buttons that can be assigned to the 20/30 MET sets Page 3 of 3 are the same as those listed for BUTTON ASSIGNMENTS above.

The figures entitled “20-MET Voice Terminal” and “30-MET Voice Terminal” respectively, which appear at the end of this section dealing with MET Voice Terminals, show the voice terminal button number assignments in relation to the button numbers on the associated Voice Terminal Forms.

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: _____	Lock Messages: n	COR: <u>1</u>
Port: _____	Security Code: _____	COS: <u>1</u>
Name: _____	Coverage Path: _____	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
Bridged Call Alerting? <u>n</u>	Restrict Last Appearance? <u>y</u>

SCREEN 6-96. 10 MET, 20 MET, and 30 MET Form (Page 1)—Example Only**Implementation Note:**

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____ Headset? n

Jack: _____

Cable: _____

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: call-atmr

2: call-appr

3: call-appr

4: _____

5: _____

SCREEN 6-97. 10 MET, 20 MET, and 30 MET Form (Page 2)—Example Only

Implementation Note:

The first three button assignments are defaulted as call-appr (call appearance).

Page 3 of 3

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____	11: _____
2: _____	12: _____
3: _____	13: _____
4: _____	14: _____
5: _____	15: _____
6: _____	16: _____
7: _____	17: _____
8: _____	18: _____
9: _____	19: _____
10: _____	20: _____

SCREEN 6-98. 20- or 30-MET Sets Form (Page 3)—Example Only**Implementation Note:**

Buttons 1 through 5 may only be assigned “call-appr,” “abrd-appr,” or “brdg-appr.”

Buttons 11 through 20 are only displayed for the 30-MET set.

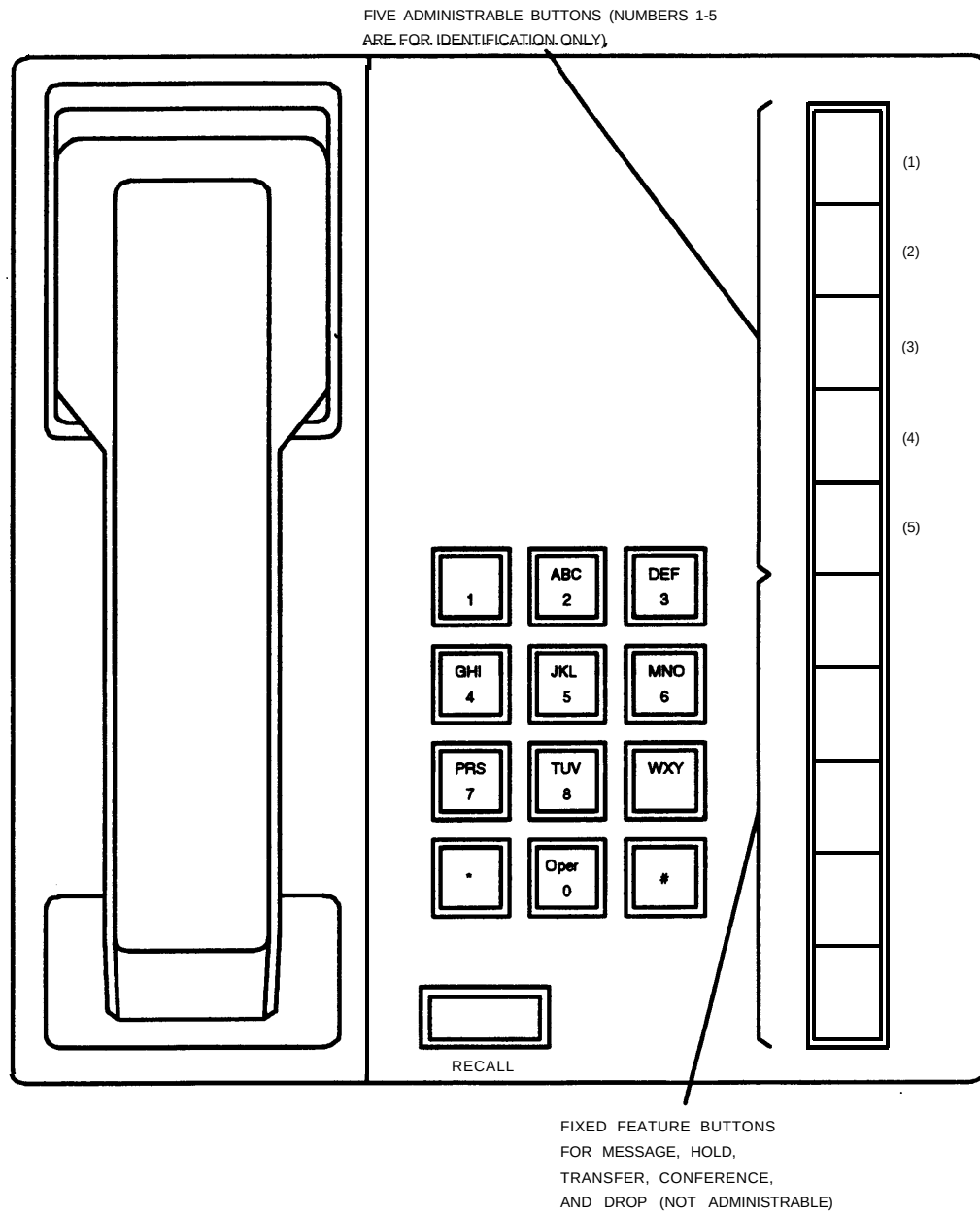


FIGURE 6-14. 10-MET Voice Terminal

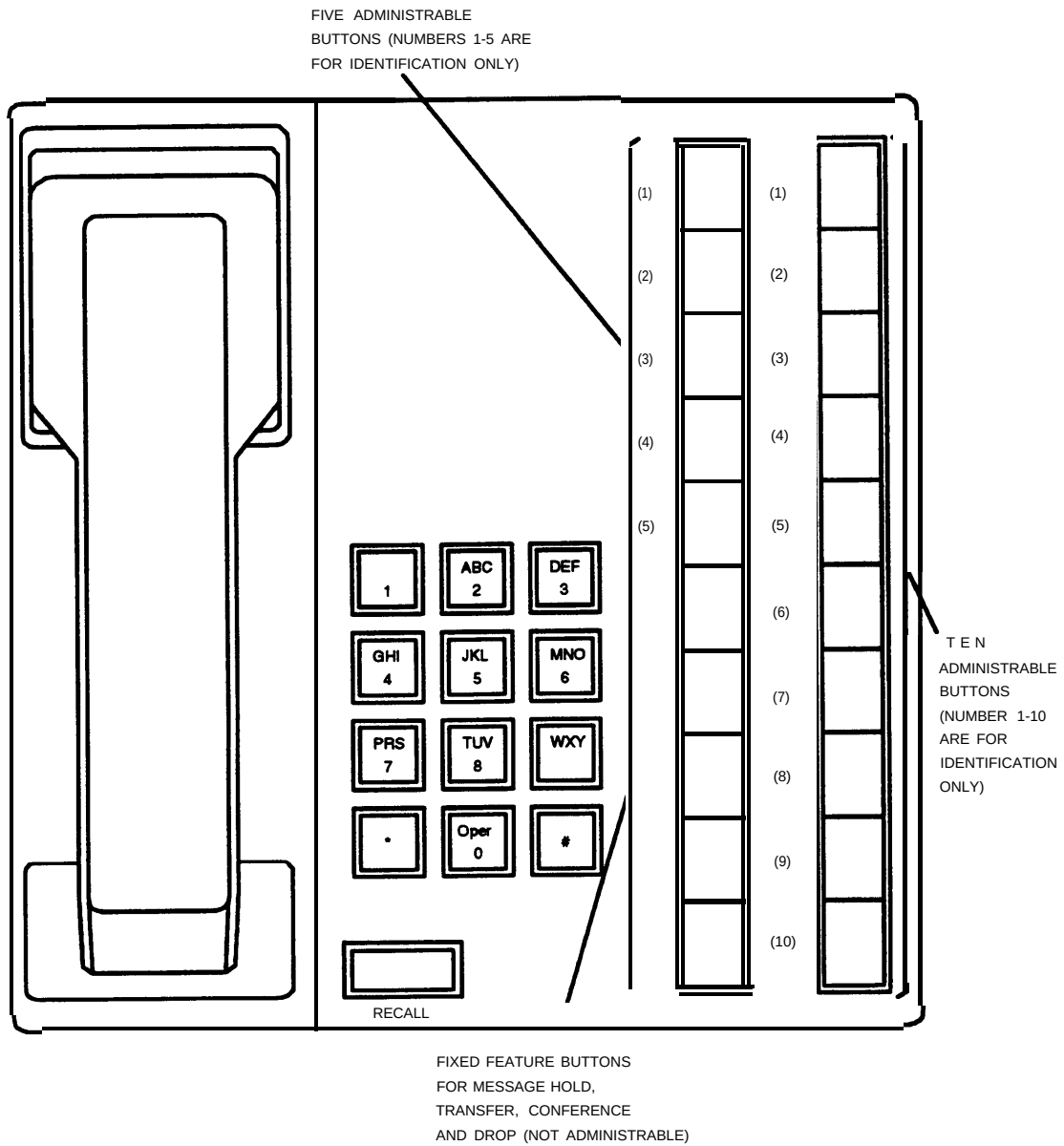


FIGURE 6-15. 20-MET Voice Terminal

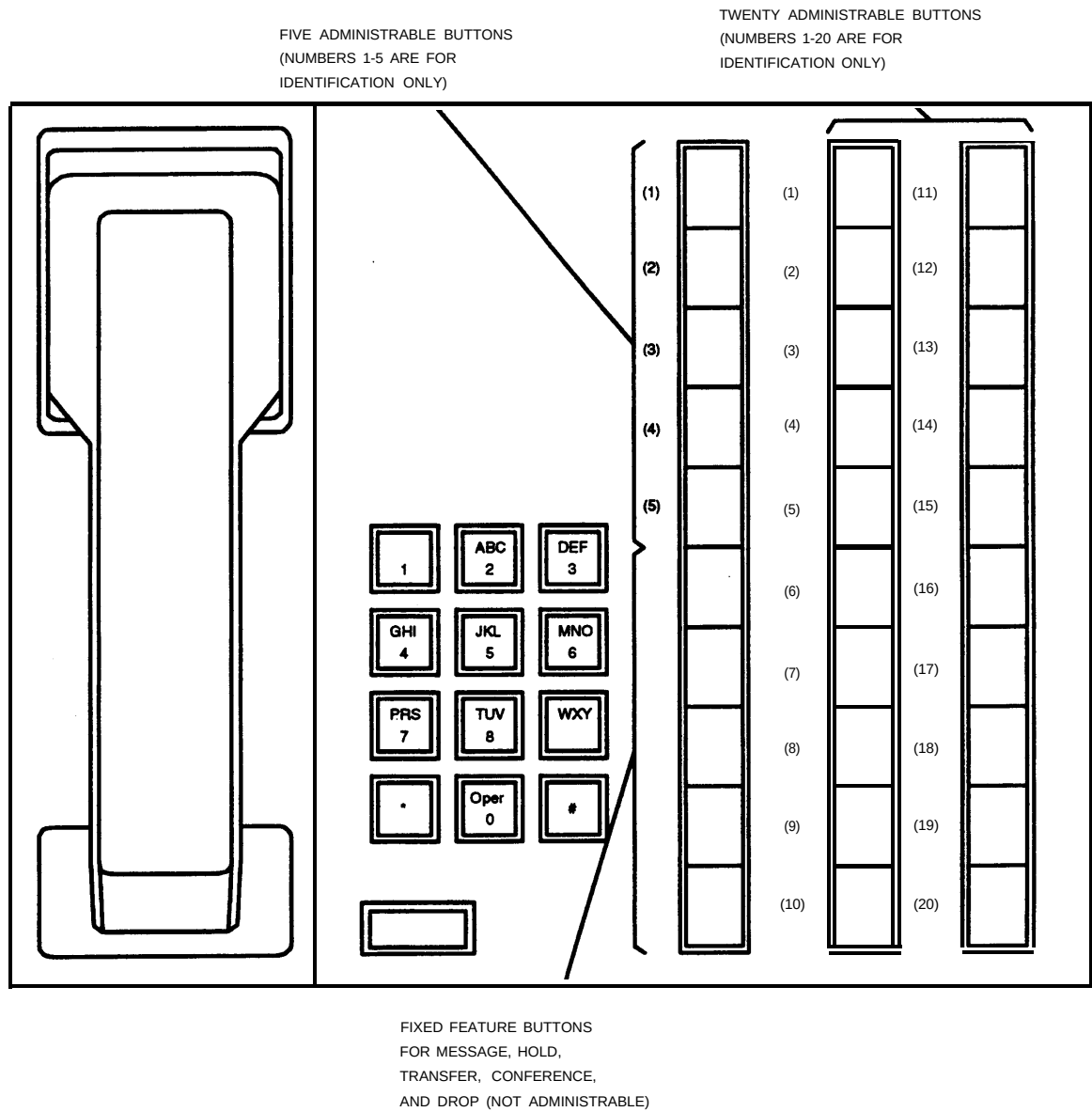


FIGURE 6-16. 30-MET Voice Terminal

500, 2500, 7101A, 7102A, 7103A, and 7104A Voice Terminals

Purpose

This form is used to implement a 500, 2500, 7101A, 7102A, 7103A, or 7104A single-line voice terminal. The terminals are shown in the figures immediately following the sample station forms in this section dealing with the 500, 2500, 7101A, 7102A, 7103A, and 7104A Voice Terminals.

Administration Commands

The following administration commands can be used to access the Voice Terminal form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[-] ('count' 1-1600) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the "Voice Terminals-General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided in the "Voice Terminal-General" section of this chapter. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter "500," "2500" (see note), "7101A," 7103A," or "7104A," as appropriate. For a 7102A Voice Terminal, enter "7101A" in the Type field.

Note: For a 2500 DMGC voice terminal, enter "7101A" in the Type field. This enables the Recall button and switchhook flash functions.
- **Tests**— Enter "y" to enable port maintenance tests. Enter "n" when the voice terminal is connected through a peripheral unit, such as a dictating machine, that will cause the tests to fail. Default is "y."

Page 2 of the Form

- **Abbreviated Dialing List 1:, List 2:, List 3:**—Up to three AD lists may be accessed by the voice terminal. Enter “p” for personal, “s” for system, “g” for group, or “e” enhanced. If “p” or “g” is entered, a personal list number (1 through 3) or a group number (on e through 100), respectively, is also required. If the set type is a 7103A, then enter “7103A” as a List type.

Page 1 of 2

STATION

Extension: _____	BCC : 0	
Type: _____	Lock Messages: <u>n</u>	COR : <u>1</u>
Port: _____	Security Code: _____	COS : <u>1</u>
Name: _____	coverage Path: <u> </u>	Tests? <u>y</u>

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>y</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Call Waiting Indication? <u>y</u>
Off Premise Station? <u>n</u>	Att. Call Waiting Indication? <u>y</u>
R Balance Network? <u>n</u>	Distinctive Audible Alert? <u>y</u>
Switchhook Flash? <u>y</u>	Message Waiting Indicator? <u> </u>
	Adjunct, Supervision? <u>y</u>

SCREEN 6-99. Single-Line Station Form (Page 1)—Example Only**Implementation Note:**

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

The R Balance Network field is only displayed when the Off Premise Station field is “y.”

The Message Waiting Indicator field is only displayed when the Type field is “500,” “2500,” or “7104D.”

The Adjunct Supervision field is only displayed when the Type field is “500” or “2500.”

Page 2 of 2

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

HOT LINE DESTINATION

Abbreviated Dialing List Number (From above 1, 2 or 3): _

Dial Code: _

SCREEN 6-100. Single-Line Station Form (Page 2)—Example Only

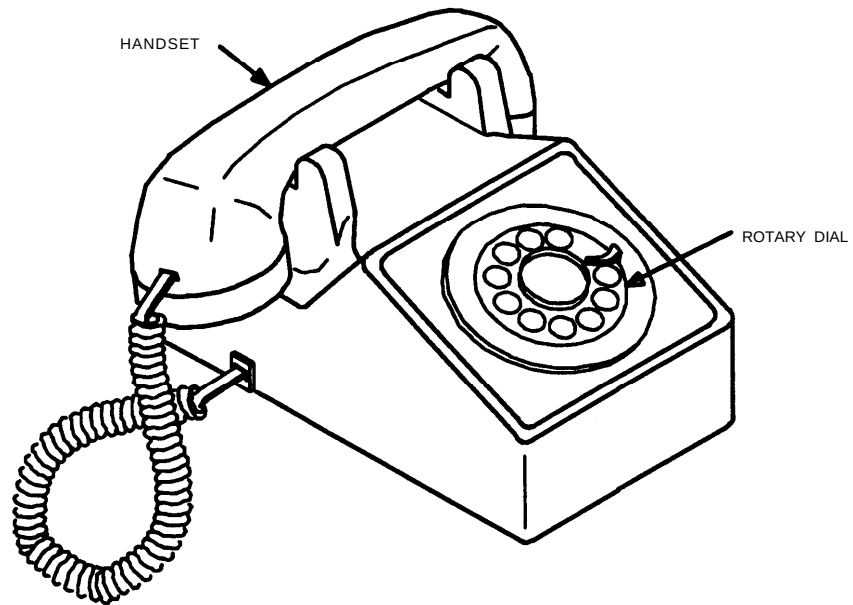


FIGURE 6-17. 500 Voice Terminal

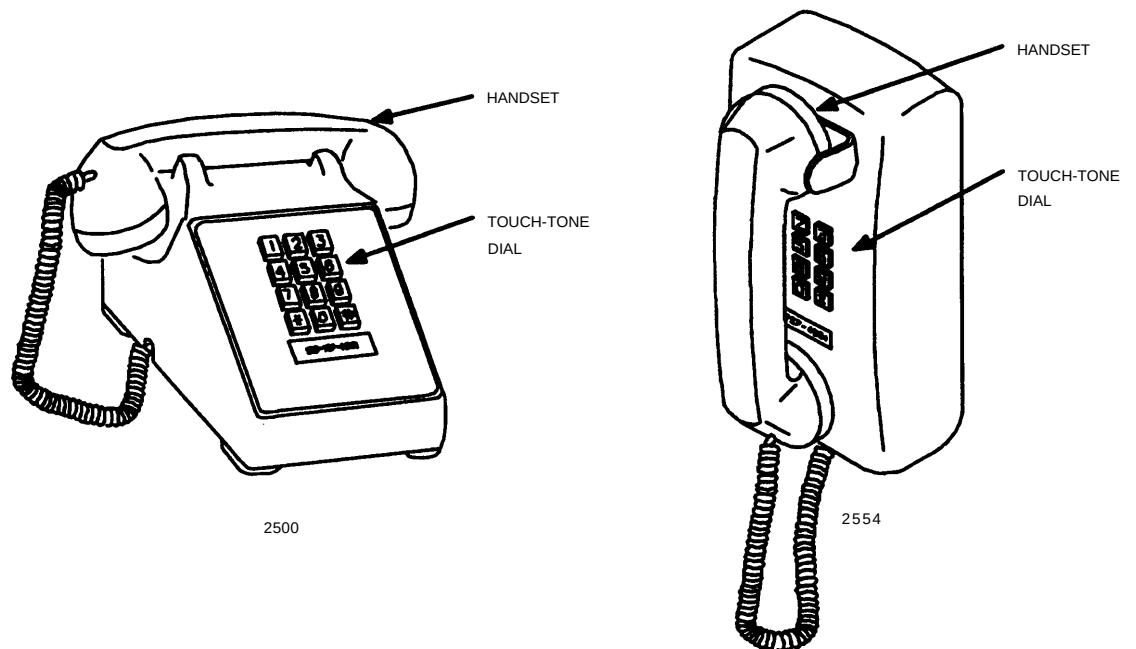


FIGURE 8-18. 2500 and 2554 Voice Terminals

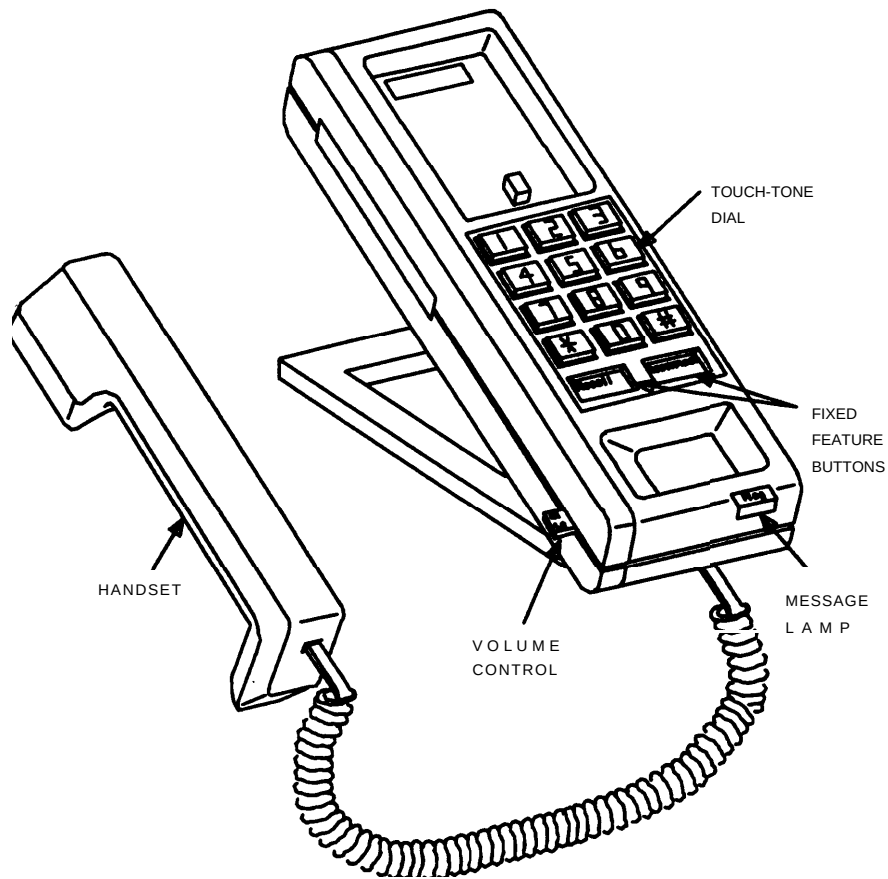


FIGURE 6-19. 7101A Voice Terminal

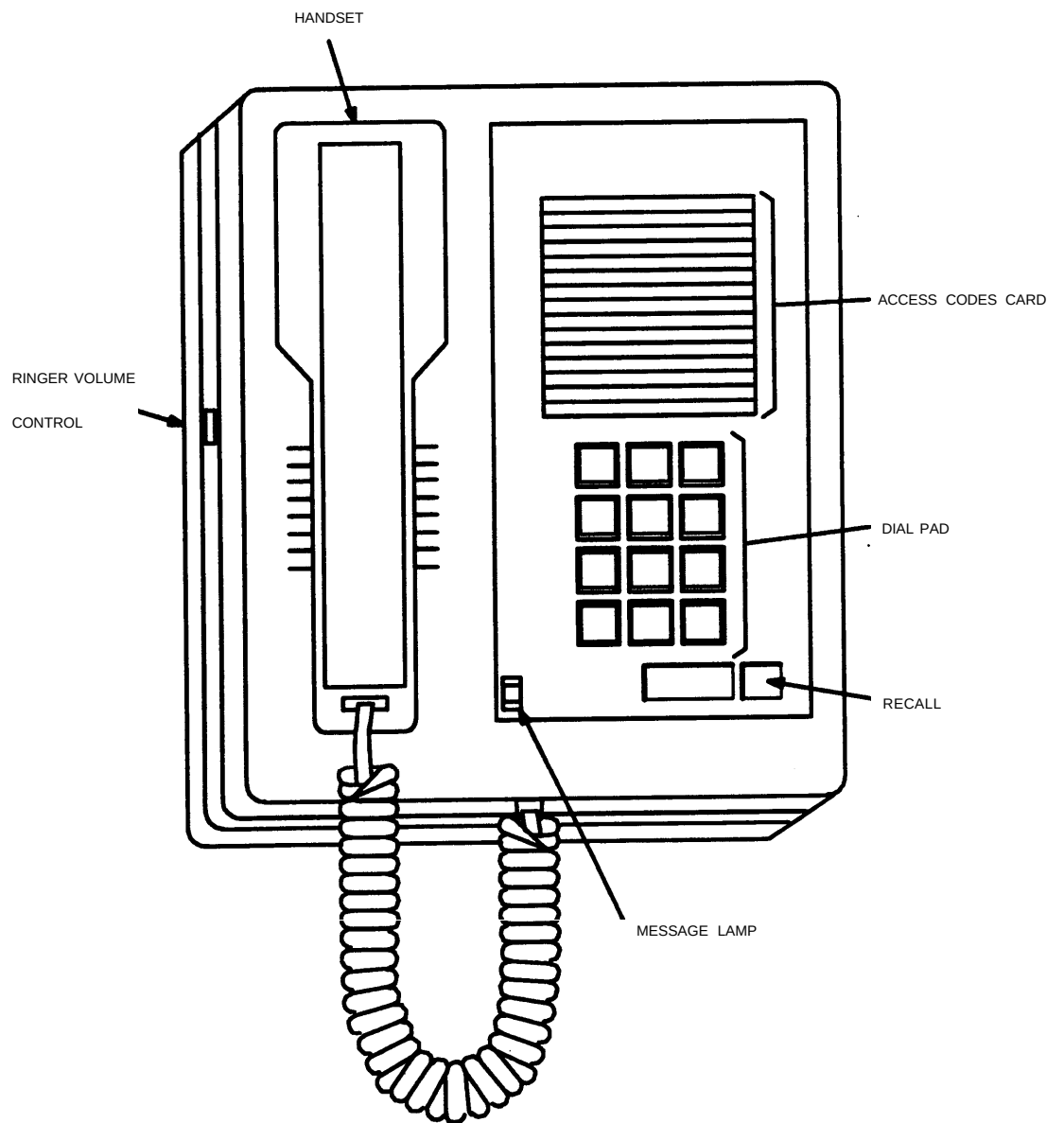


FIGURE 6-20. 7102A Voice Terminal

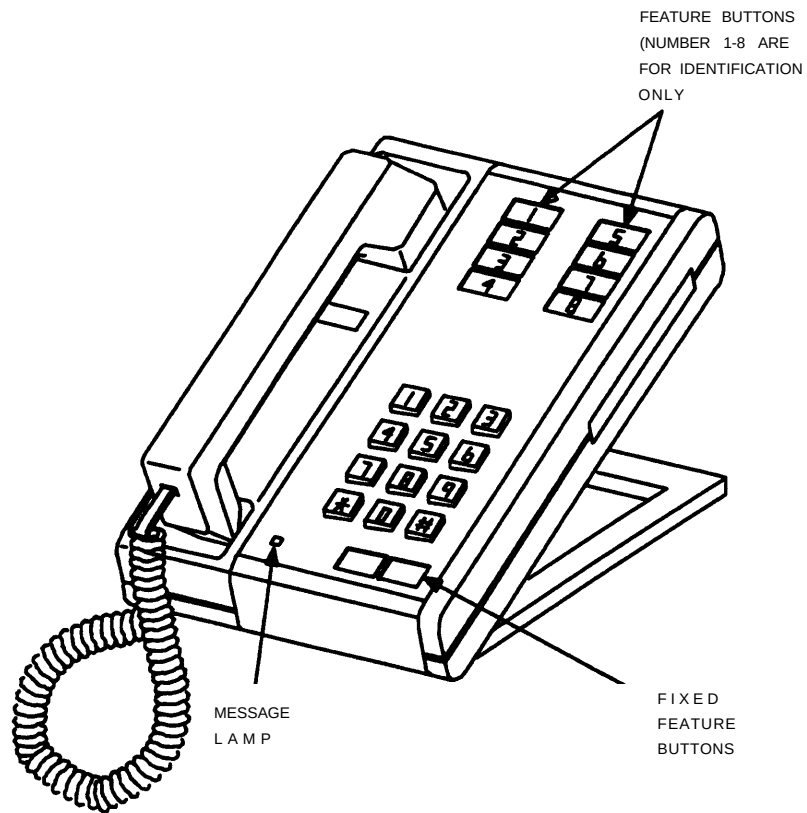


FIGURE 6-21. 7103A Voice Terminal

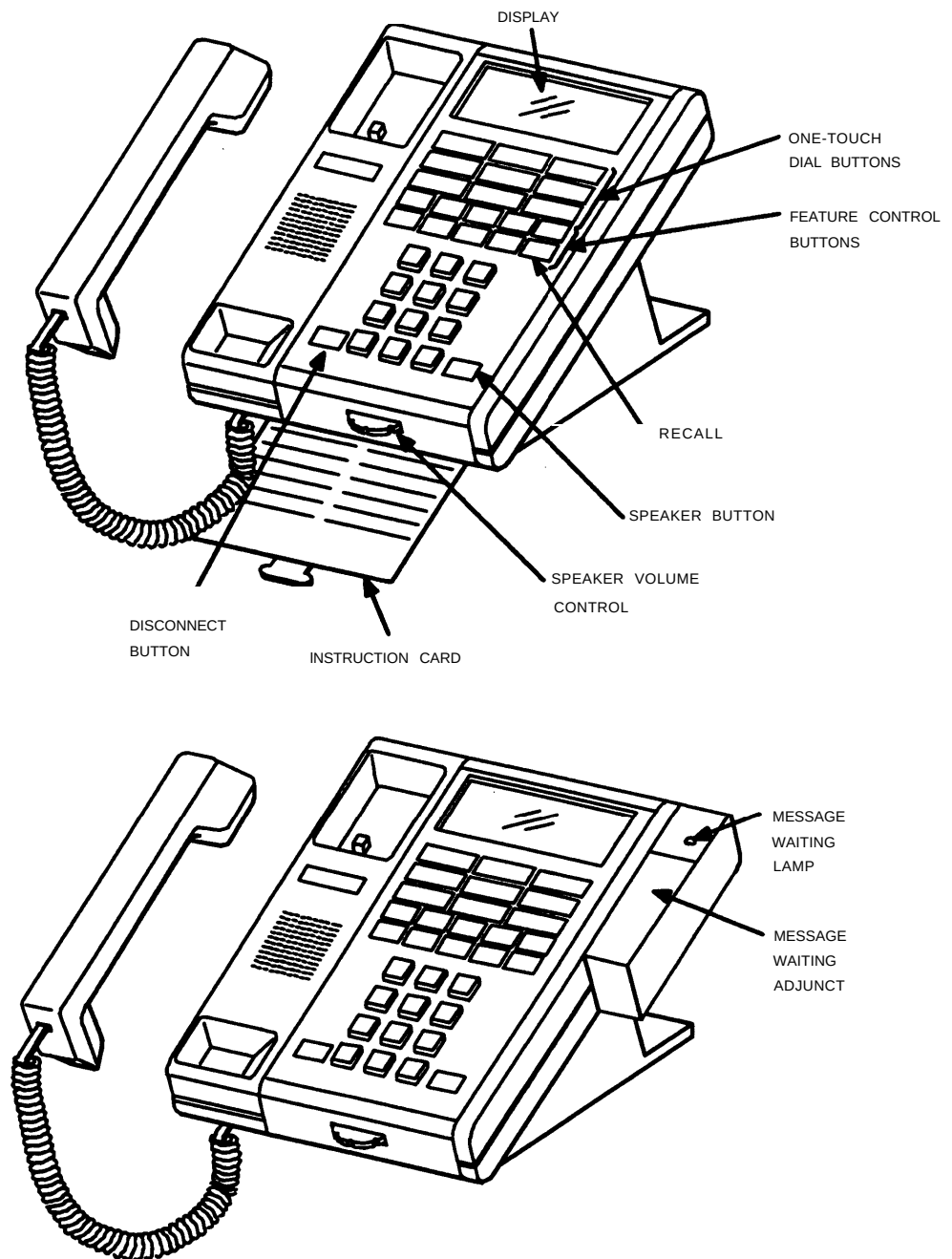


FIGURE 6-22. 7104A Voice Terminal

510D Personal Terminal and 515 Business Communications Terminal

Purpose

The following forms are used to implement an AT&T 510D Personal Terminal or an AT&T 515 Business Communications Terminal (BCT).

Administration Commands

The following administration commands can be used to access the form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Please review the "Voice Terminals—General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided in the "Voice Terminals—General" section of this chapter. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 08).
- **PCOL/TEG Call Alerting**— (510D only) Enter "y" if the user will be alerted of a PCOL/TEG call; otherwise, enter "n." Default is "n."
- **Bridged Call Alerting**— (515 BCT only) Enter "y" to allow incoming calls on bridged appearances of another terminals primary extension number or TEG or PCOL calls to alert at this terminal. Default is "n."
- **Data Module**— Display-only field. Restricted to "y."

- **Display**— Display-only field. Restricted to “y.”

Page 2 of the Form

- **Button Assignments**

The following list defines the feature buttons that can be assigned to the 510 Personal Terminal (PT) and 515 BCT are listed below. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-call
- after-call
- assist
- atd-qcalls *
- atd-qtime *
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- auto-wkup *
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-disp *
- call-fwd
- call-park
- call-pkup
- callr-info*
- cas-backup
- check-in *
- check-out *
- clk-overid *
- consult
- cov-cback
- cov-msg-rt *
- data-ext
- date-time *
- delete-msg *
- dial-icom
- directory *
- dn-dst
- ds1-alarm
- exclusion
- ext-dn-dst *
- flash
- goto-cover
- grp-dn-dst *
- hunt-ns
- in-call-id
- inspect *
- last-numb
- link-alarm
- lsvn-call *
- lsvn-call *
- lwc-cancel
- lwc-store
- major-alarm
- man-msg-wt
- man-overid *
- manual-in
- mj/mn alm
- msg-retr *
- mwn-act *
- mwn-deact *
- next *
- night-ser
- normal *
- per-COline
- pms-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- rsvn-call *
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1-alm
- smdr2-alm
- stored-num *
- stroke-cnt
- term-x-gr
- timer *
- trk-ac-alm
- trunk-name *
- trunk-ns
- verify
- work-code

* Display-type buttons

The 5100 and 515 button number assignments in relation to the button numbers on the form are shown in the figures entitled “510D Personal Terminal Administrable Screen Button Assignments” and “515 Business Communications Terminal (BCT)” located at the end of this section dealing with the 510D and 515D terminals.

Page 3 of the Form (510D Only)

- **Feature Button Assignments**— The features and functions that can be assigned to the 510 Personal Terminal (PT) Page 3 of x are the same as those listed for BUTTON ASSIGNMENTS above.

The 510D button number assignments in relation to the button numbers on the form are shown in the figure entitled “510D Personal Terminal Administrable Screen Button Assignments” located at the end of this section dealing with the 510D and 515D terminals.

Page x of the Form

- **(Display Button Assignments)**— The administrable display-type buttons that can be assigned are shown on the above list (see BUTTON ASSIGNMENTS) and are noted as [display buttons].

Page x of the Form

- **Data Module**— Refer to the “Station Forms—Field Descriptions” section of this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: <u>510</u>	Lock Messages: <u>n</u>	COR: <u>1</u>
Port: _____	Security Code: _____	COS: <u>1</u>
Name: _____	Coverage Path: _____	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
PCOL/TEG Call Alerting? <u>n</u>	Restrict Last Appearance? <u>y</u>
Data Module? <u>y</u>	
Display? <u>y</u>	

SCREEN 6-101. 510D Personal Terminal Form (Page 1)—Example Only**Implementation Note:**

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: <u>515</u>	Lock Messages: <u>n</u>	COR : <u>1</u>
Port: _____	security Code: <u> </u>	COS : <u>1</u>
Name: _____	Coverage Path: <u> </u>	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>Y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
Bridged Call Alerting? <u>n</u>	Restrict Last Appearance? <u>Y</u>
Data Module? <u>y</u>	
Display? <u>y</u>	

SCREEN 6-102. 515 Business Communications Terminal Form (Page 1)—Example Only**Implementation Note:**

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? ☐

ABBREVIATED DIALING

List1: _____List2: _____List3: _____

BUTTON ASSIGNMENTS

1: call-appr

2: call-appr

3: call-appr

4: call-appr

5: _____

6: _____

7: _____

8: _____

9: _____

10: _____

SCREEN 5-103. 510D and 515 BCT Form (Page 2)—Example Only

Implementation Note:

Button Assignments 5 through 10 are only displayed on the 515 BCT form.

The first three button assignments default to call-appr (call appearance) for the 515 BCT. The first four button assignments must be assigned to call-appr (call appearance).

Page 3 of x

STATION

FEATURE BUTTON ASSIGNMENTS

column 1:	1:	_____
	2:	_____
	3:	_____
column 2:	4:	_____
	5:	_____
	6:	_____
column 3:	7:	_____
	8:	_____
	9:	_____

SCREEN 6-104. 510D Personal Terminal Form (Page 3)—Example Only

Page x of x

STATION

DISPLAY BUTTON ASSIGNMENTS

1:	_____
2:	_____
3:	_____
4:	_____
5:	_____
6:	_____
7:	_____

SCREEN 6-105. 510D and 515 BCT Display Button Assignments Form

Page x of x

STATION

DATA MODULE

Data Extension: _____
 Name: _____

BCC: 2
 COR: 1

ITC : restricted
 COS: 1

ABBREVIATED DIALING

List1: _____
 SPECIAL DIALING OPTION: _____
 HOT LINE DESTINATION
 DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-106. 510D and 515 BCT Data Module Form

Implementation Note:

This page is only displayed if the Data Module field on Page 1 is “y.”

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Hot Line Destination only displayed when the Special Dialing Option field is “hot-line.”

Default Dialing only displayed when the Special Dialing Option field is “default.”

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is “hot-line” or “default.”

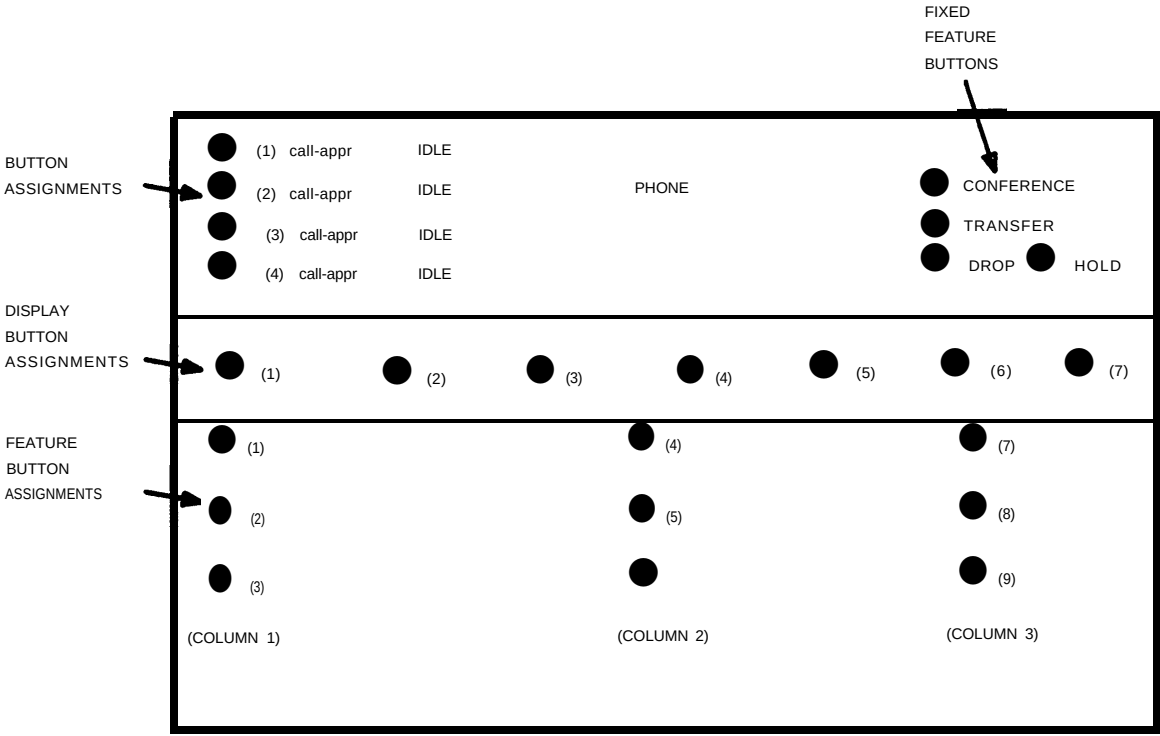


FIGURE 6-23. 510D Personal Terminal Administrable Screen Button Assignments

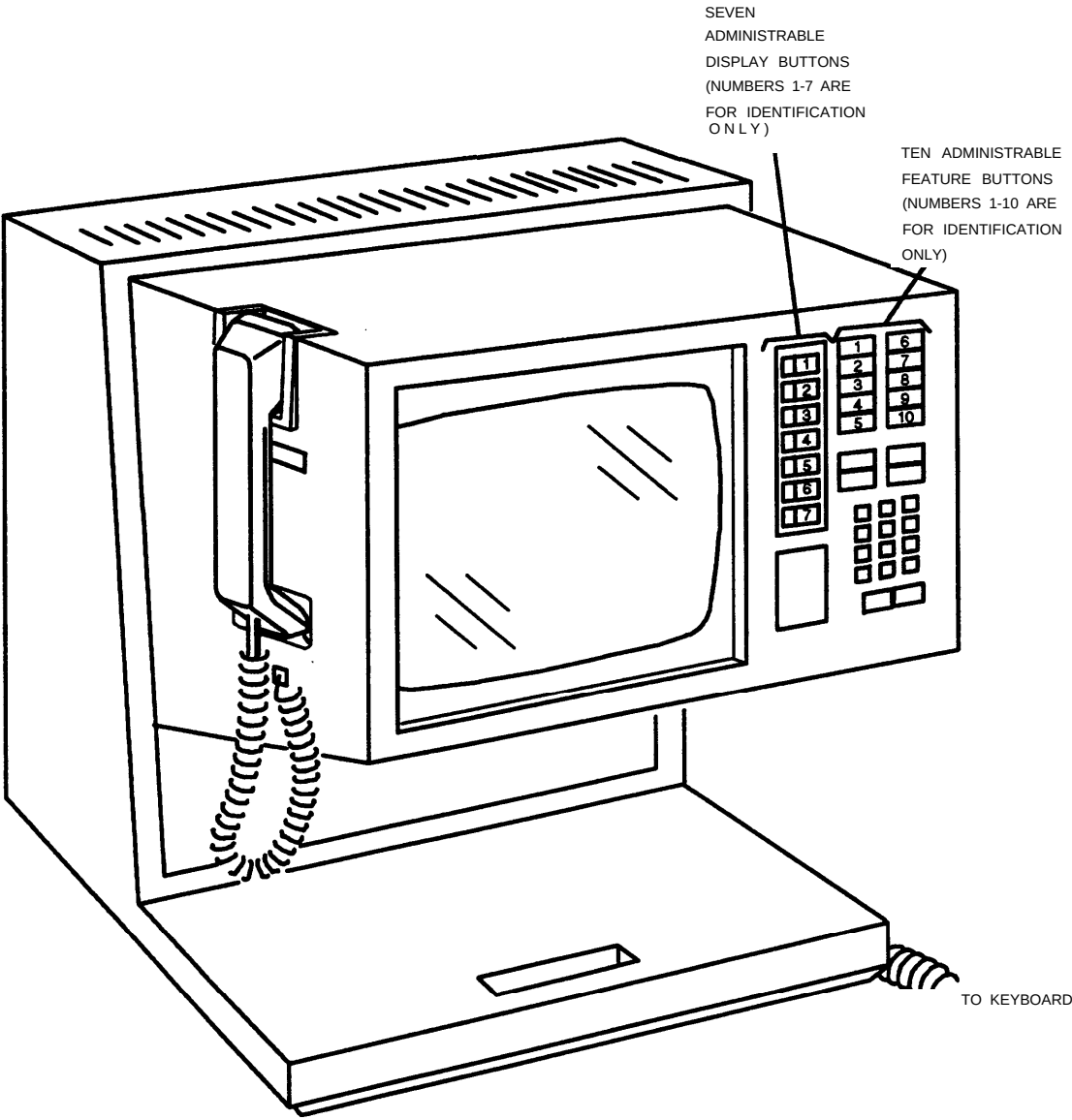


FIGURE 6-24. 515 Business Communications Terminal (BCT)

7303S, 7305S, and 7309H Voice Terminals

Purpose

This form is used to implement a 7303S, 7305S, and a 7309H multi-appearance voice terminal.

Administration Commands

The following administration commands can be used to access the Voice Terminal form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the "Voice Terminals-General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter "7303S," "7305S," or "7309H" as appropriate.

Page 2 of the Form

• Button Assignments

The feature buttons that can be assigned to the 7303S, 7305S, and 7309H voice terminals are listed below. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the "Voice Terminals—General" section.

Administrable feature buttons:

• abr-prog	• cov-cback	• pr-awu-alm
• abr-spchar	• data-ext	• pr-pms-alm
• abrdg-appr	• dial-born	• pr-sys-alm
• abrv-dial	• dn-dst	• print-msgs
• ac-alarm	• ds1-alarm	• priority
• aca-call	• exclusion	• q-calls
• after-call	• flash	• q-time
• assist	• goto-cover	• release
• aut-msg-wt	• hunt-ns	• ringer-off
• auto-cback	• in-call-id	• rs-alert
• auto-icom	• last-numb	• rsvn-call
• auto-in	• link-alarm	• send-calls
• aux-work	• lsvn-call *	• send-term
• brdg-appr	• lwc-cancel	• serv-obsrv
• busy-ind	• lwc-store	• signal
• call-appr	• major-alm	• smdr1-alm
• call-fwd	• man-msg-wt	• smdr2-alm
• call-park	• manual-in	• stroke-cnt
• call-pkup	• mj/mn alm	• term-x-gr
• cas-backup	• night-ser	• trk-ac-alm
• consult	• per-COline	• trunk-ns
	• pms-alarm	• verify

The figures entitled “7303S Voice Terminal,” “7305S Voice Terminal: and “7309H Voice Terminal” at the end of this section show the 7303S, 7305S, and 7309H voice terminal button number assignments in relation to the button numbers on the Voice Terminal Form. The first three buttons are defaulted as call appearance.

Page 3 of the Form (7305S only)

- **Feature Button Assignments**

The features and functions that can be assigned to the 7305S on Page 3 of 3 are the same as those listed for BUTTON ASSIGNMENTS above.

The figure entitled “7305S Voice Terminal” shows the 7305S voice terminal button number assignments in relation to the button numbers on the Voice Terminal Form. The first three buttons are defaulted as call appearance.

Page 1 of x

STATION

Extension: _____	BCC : 0	
Type: _____	Lock Messages: ☐	COR : <u>1</u>
Port: _____	Security Code: _____	COS : <u>1</u>
Name: _____	Coverage Path: _	

FEATURE OPTIONS	
LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? ☒
LWC Activation? ☒	Auto Answer? ☐
SMDR Privacy? ☐	Data Restriction? ☐
Redirect Notification? ☒	Idle Appearance Preference? ☐
Bridged Call Alerting? ☐	Personalized Ringing Pattern: _____
	Restrict Last Appearance? ☒

SCREEN 6-107. 7303S, 7305S, and 7309H Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

For 7303S and 7309H voice terminals, this is a 2-page form.

For 7305S voice terminal, this is Page 1 of a 3-page form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

BUTTON ASSIGNMENT

1: call-appr

2: call-appr

3: call-appr

4: _____

5: _____

6: _____

7: _____

8: _____

9: _____

10: _____

SCREEN 6-106. 7303S, 7305S, and 7309H Station Form (Page 2)—Example Only

Page 3 of 3

STATION

FEATURE BUTTON ASSIGNMENTS

1:	_____	13:	_____
2:	_____	14:	_____
	_____	15:	_____
4:	_____	16:	_____
5:	_____	17:	_____
6:	_____	18:	_____
7:	_____	19:	_____
8:	_____	20:	_____
9:	_____	21:	_____
10:	_____	22:	_____
11:	_____	23:	_____
12:	_____	24:	_____

SCREEN 6-109. 7305S Voice Terminal Form (Page 3)—Example Only

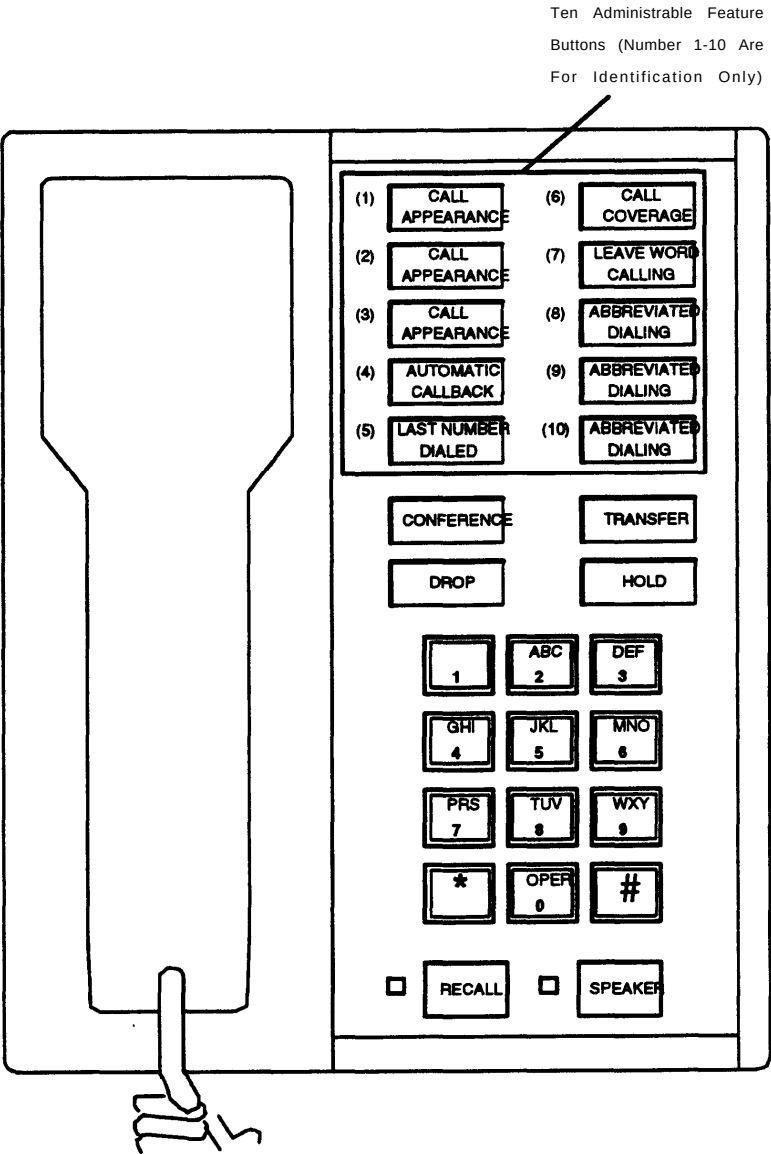


FIGURE 6-25. 7303S Voice Terminal

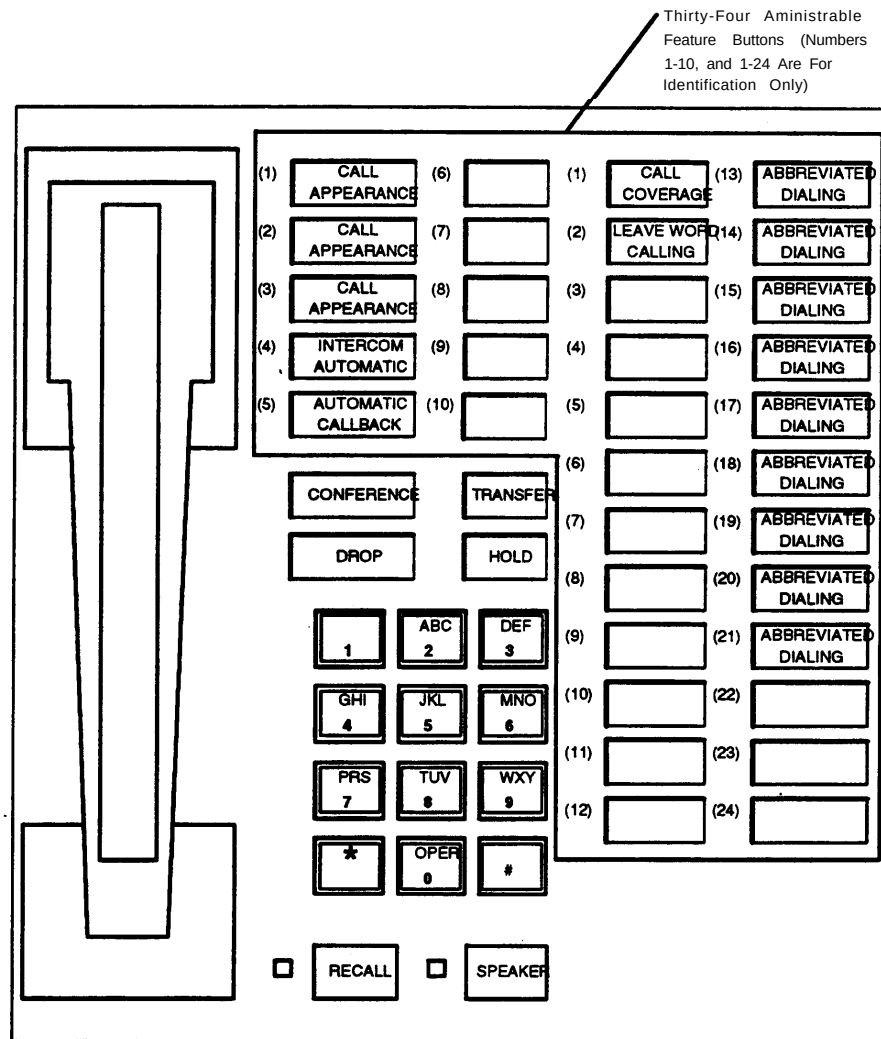


FIGURE 6-26. 7305S Voice Terminal

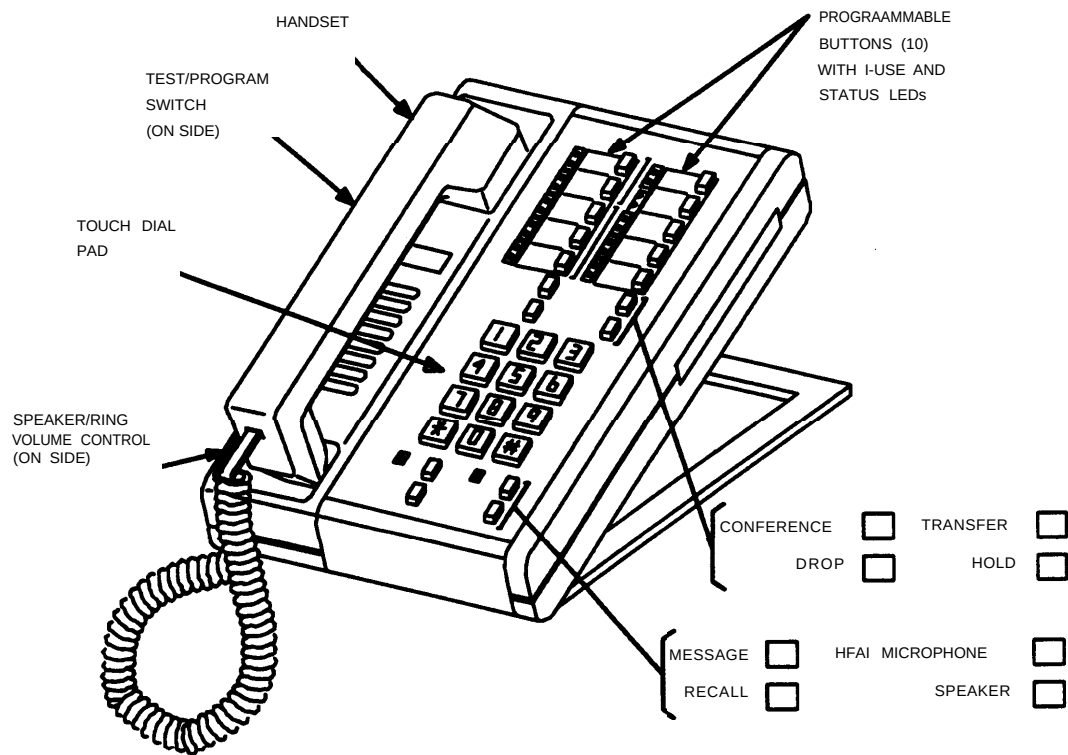


FIGURE 6-27. 7309H Voice Terminal

7401D, 7403D, and 7404D Voice Terminals

Purpose

This form is used to implement a 7401D, 7403D, and a 7404D voice terminal.

Administration Commands

The following administration commands can be used to access the Voice Terminal forms. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600)port ['print' or 'schedule']
remove	station	xxxxx (extension number)

* Brackets [] indicate the qualifier is optional.

Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the "Voice Terminals—General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter "7401D," "7403D," or "7404D" as appropriate.
- **PCOL/TEG Call Alerting**— (For 7401 D Voice Terminal only)—Enter "y" to allow incoming calls on PCOLs/TEGs to audibly alert at this voice terminal. Default is "n."
- **Bridged Call Alerting**— (For 7403D and 7404D Voice Terminals only)—Enter "y" to allow incoming calls on bridged appearances at another voice terminal's primary extension, TEG, or PCOL calls to alert at this voice terminal. Default is "n."
- **Personalized Ringing Pattern**— (For 7401 D and 7404D Voice Terminals only)—Enter a Personalized Ringing Pattern, 1 through 8, as follows:

Ring	Pattern	Tone Sequence
1		MMM (standard ringing)
2		HHH
3		LLL
4		LHH
5		HHL
6		HLL
7		HLH
8		LHL

L=530Hz, M=750Hz, and H=1060Hz

- **Data Module**— For the 7401 D, enter “y” if this terminal is to be connected to a data terminal via a 7400B Data Module. For the 7403D, enter “y” if this terminal is to be connected to a data terminal via optional DTDM or 7400B Data Module; otherwise, enter “n.” For the 7404—this is a display-only field set to “y.” If “y” is entered, the Data Module form must be completed. Allowable entries are “y” or “n.” Default is “n.”
- **Display**— Enter “y” (yes) if the voice terminal is to have a display via a 7400B Data Module and associated data terminal or an optional Messaging Cartridge (7404D only) and an associated data terminal; otherwise, enter “n.” Default is “n.” If “y” is entered, the Display Button Assignments form must be completed.

Page 2 of the Form

- **Headset**— For a 7401 D or 7404D, enter “n,” these sets cannot have a headset. For a 7403D, enter “y” if the terminal is to have a headset; otherwise, enter “n.” Default is “n.”
- **Button Assignments**

The feature buttons that can be assigned to the 7401D, 7403D, or 7404D voice terminals are listed below. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information maybe required when administering buttons. This information is provided in the “Voice Terminals—General” section.

• abr-prog	• Cov-msg-rt *	• night-ser
• abr-spchar	• data-ext	• normal *
• abrdg-appr †	• date-time *	• per-COLine
• abrv-dial	• delete-msg *	• pms-alarm
• ac-alarm	• dial-icom	• pr-awu-alm
• aca-call	• directory *	• pr-pms-alm
• after-call	• dn-dst	• pr-sys-alm
• assist	• ds1-alarm	• print-msgs
• atd-qcalls *	• exclusion	• priority
• atd-qtime *	• ext-dn-dst *	• q-calls
• aut-msg-wt	• flash	• q-time
• auto-cback	• goto-cover	• release
• auto-icom	• grp-dn-dst *	• ringer-off
• auto-in	• hunt-ns	• rs-alert
• auto-wkup *	• in-call-id	• rsvn-call *
• aux-work	• inspect *	• send-calls
• brdg-appr †	• last-numb	• send-term
• busy-ind	• link-alarm	• serv-obsrv
• call-appr †	• lsvn-call *	• signal
• call-disp *	• lwc-cancel	• smdr1-alm
• call-fwd	• lwc-store	• smdr2-alm
• call-park	• major-alm	• stored-num *
• call-pkup	• man-msg-wt	• stroke-cnt
• callr-info*	• man-overid *	• term-x-gr
• cas-backup	• manual-in	• timer *
• check-in *	• mj/mn alm	• trk-ac-alm
• check-out *	• msg-retr *	• trunk-name *
• clk-overid *	• mwn-act *	• trunk-ns
• consult	• mwn-deact *	• verify
• cov-cback	• next *	• work code

* Display-type buttons (not administrable on 7401D or 7403D voice terminal)

† Not administrable on the 7401D voice terminal

For the 7401D voice terminal, BUTTON ASSIGNMENTS 3 through 9 are used to assign features to dialpad keys one through seven (BUTTON ASSIGNMENT three corresponds to dialpad key one, BUTTON ASSIGNMENT four corresponds to dialpad key two, etc.). The call-apppr buttons defaulted in BUTTON ASSIGNMENTS one and two are not administrable (display-only).

On the 7403D and 7404D voice terminals, the first three buttons are defaulted as call appearance buttons.

Page x of the Form (DISPLAY BUTTON ASSIGNMENTS)

- Only displayed if the Display field on Page 1 is “y.” Administer display buttons per the Implementation Note associated with the screen form. The display function is obtained via an optional Messaging Cartridge and an associated data terminal (also requires administering the following Data Module form).

Page x of the Form (DATA MODULE)

- Only displayed if the Data Module field on Page 1 is “y.” Refer to the “Station Forms—Field Descriptions” section in this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____	BCC : 0	
Type: <u>7401D</u>	Lock Messages: <u>n</u>	COR: <u>1</u>
Port: _____	Security Code: <u> </u>	COS: <u>1</u>
Name: _____	Coverage Path: <u> </u>	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
PCOL/TEG Call Alerting? <u>n</u>	personalized Ringing Pattern: <u> </u>
	Restrict Last Appearance? <u>y</u>
Data Module? <u>n</u>	

SCREEN 6-110. 7401D Station Form (Page 1)—Example Only**Implementation Note:**

The BCC field is displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 1 of x

STATION

Extension: _____ BCC: 0

Type: 7403D Lock Messages: n COR: 1

Port: _____ Security Code: _____ COS: 1

Name: _____ Coverage Path: _

FEATURE OPTIONS

LWC Reception? psa-spe Coverage Msg Retrieval? y

LWC Activation? y Auto Answer? n

SMDR Privacy? n Data Restriction? n

Redirect Notification? y Idle Appearance Preference? n

Bridged Call Alerting? n Restrict Last Appearance? y

Data Module? n

SCREEN 6-111. 7403D Station Form (Paga 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: <u>7404D</u>	Lock Messages: <u>n</u>	COR: <u>1</u>
Port: _____	Security Code: _____	COS: <u>1</u>
Name: _____	Coverage Path: <u> </u>	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
Bridged Call Alerting? <u>n</u>	Personalized Ringing Pattern: <u> </u>
	Restrict Last Appearance? <u>y</u>
Data Module? <u>n</u>	
Display? <u>n</u>	

SCREEN 6-112. 7404D Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____
Jack: _____
Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

BUTTON ASSIGNMENTS

1: call -appr
2: call-appr
3: call-appr
4: _____
5: _____

6: _____
7: _____
8: _____
9: _____
10: _____

SCREEN 6-113. 7401D, 7403D, 7404D Station Fom (Page 2)—Example Only**Implementation Note:**

Button Assignments:

- 7401D 1 through 9 only displayed. Buttons 1 and 2 not administrable (that is, assigned as “call-appr”). Button 3 may be assigned as required.
- 7403D 1 through 10 displayed.
- 7404D 1 through 6 only displayed. Buttons 1 through 3 must be assigned as “call-appr.”

Page x of x

DISPLAY BUTTON ASSIGNMENTS

1: normal

2: inspect

3: msg-retr

4: next

5: call-disp

6: delete-msg

7: date-time

SCREEN 6-114. 7404D Station Form—Example Only**Implementation Note:**

This page is only displayed if the Display field on Page 1 is "y." Buttons 1 through 7 , when administered, relate to function buttons [F1] through [F7] on the associated data terminal.

For a 7404D equipped with an optional Messaging Cartridge without Integrated Directory, display buttons must be administered as shown on the form.

For a 7404D equipped with an optional Messaging Cartridge with Integrated Directory, display buttons must be administered as shown on the form with the exception of the date/time (button 7) which must be administered as "directory."

Page x of x

STATION

DATA MODULE
Data Extension: _____ BCC: 2 ITC: restricted
Name: _____ COR: 1 COS: 1

ABBREVIATED DIALING
List1: _____
SPECIAL DIALING OPTION: _____
HOT LINE DESTINATION
DEFAULT DIALING
Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-115. 7401D, 7403D, 7404D Data Module Form—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page 1 is “y.”

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is “hot-line.”

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is “default.”

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is “hot-line” or “default.”

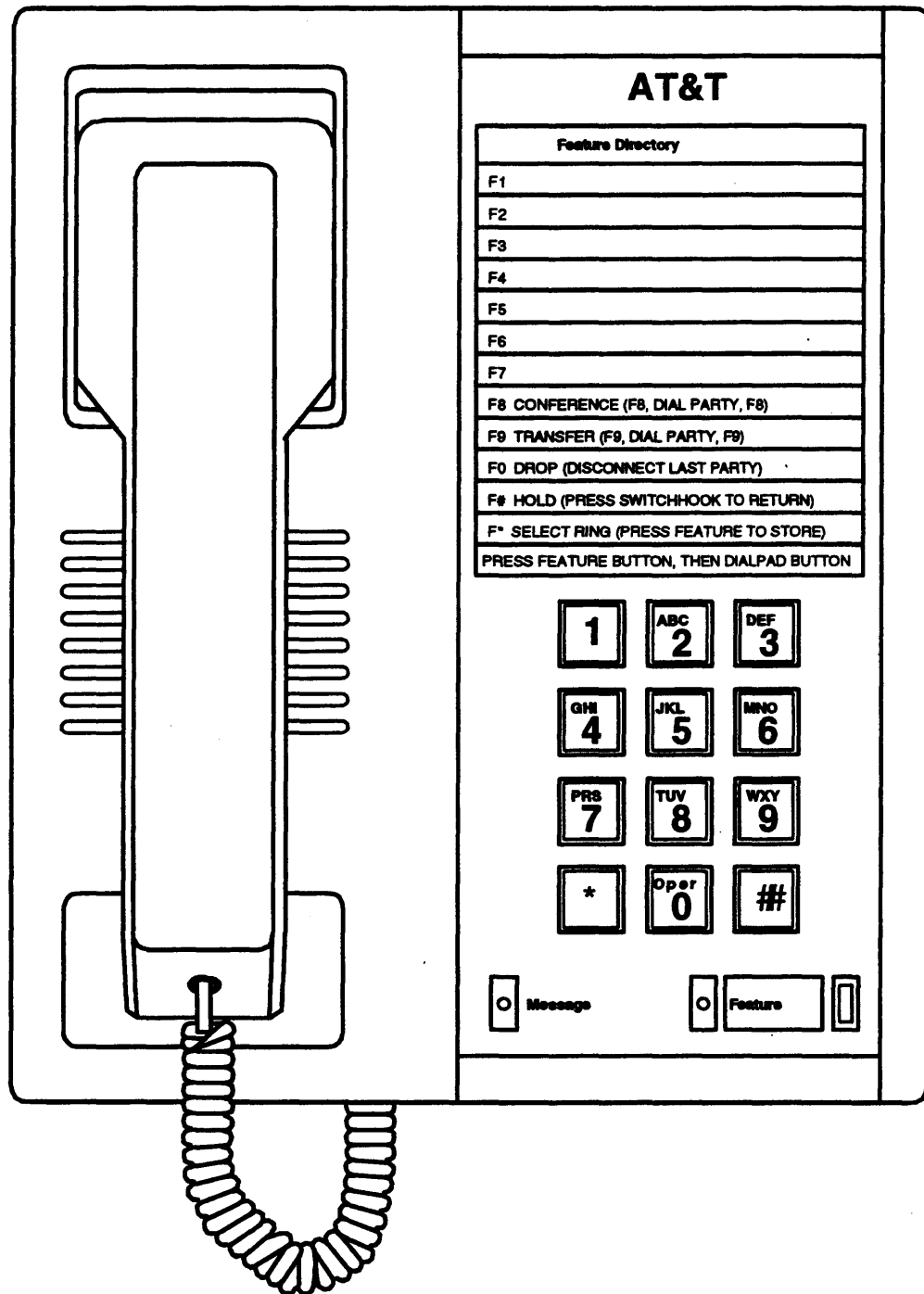


FIGURE 6-28. 7401D Voice Terminal

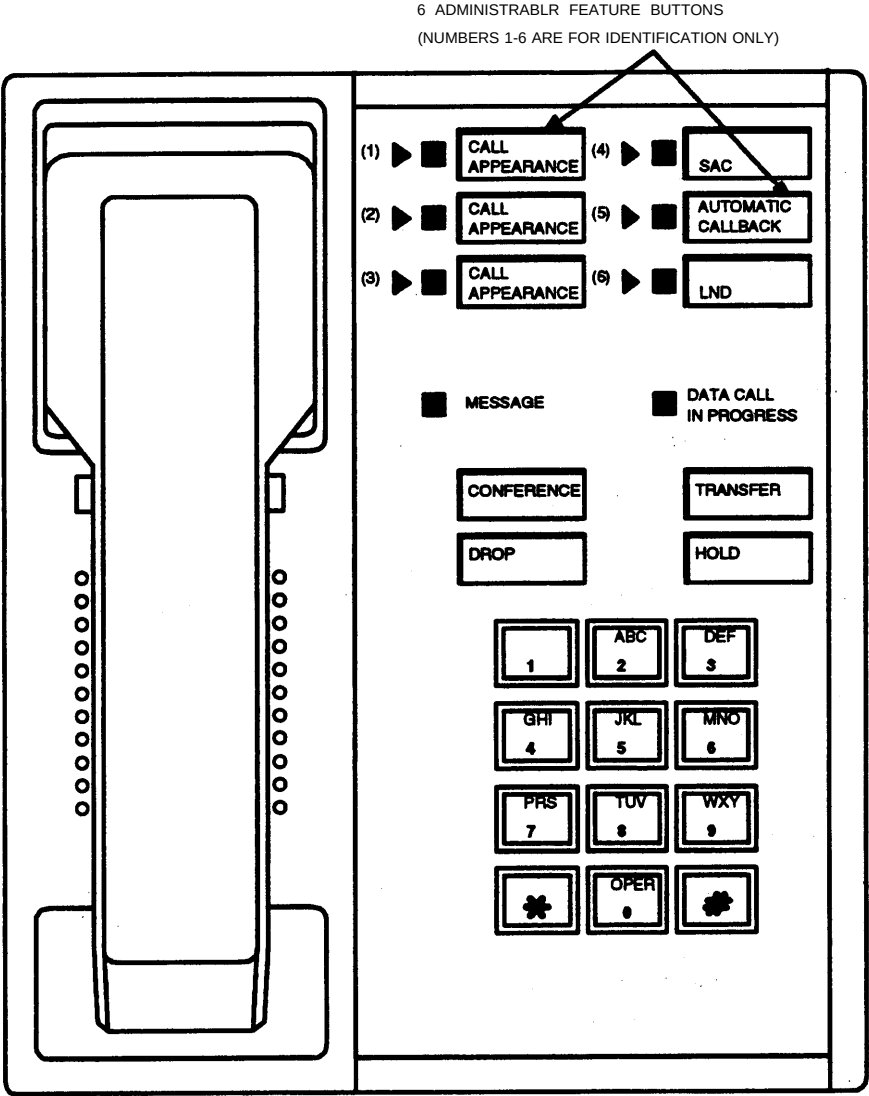


FIGURE 6-29. 7404D Voice Terminal

7405D Voice Terminal

Purpose

This form is used to implement a 7405D multi-appearance voice terminal.

Administration Commands

The following administration commands can be used to access the Voice Terminal form. In some oases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualfier*
add	station xxxxx (extension number) or ('next')	
change	station xxxxx (extension number)	
display	station xxxxx (extension number)	
duplicate	station	
list	station [xxxxx] ('count' 1-1600) type ['print' of 'schedule']	
list	station [xxxxx] ('count' 1-1600) port ['print' or 'schedule']	
remove	station xxxxx (extension number)	

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the "Voice Terminals—General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter "7405D."
- **Data Module**— Enter "y" if this terminal is connected to an optional DTDM; otherwise, enter "n." If a "y" is entered, the Data Module form (Page 2) must be completed. Default is "n."
- **Feature Module**— Enter "y" if the voice terminal is to be connected to an optional Feature Module. If "y" is entered, the Feature Module form must also be completed. Enter "n" if a Feature Module is not desired. Default is "n."
- **Display**— Enter "y" if the voice terminal is to have a display by an optional Digital Display Module; otherwise, enter "n." If "y" is entered, the Display Button assignments form must be completed. Default is "n."

- **Coverage Module**— Enter “y” if the voice terminal is to be connected to an optional Call Coverage Module; otherwise, enter “n.” If “y” is entered, the Coverage Module form must be completed. The voice terminal cannot have an optional Coverage Module and optional Digital Display Module at the same time. Default is “n.”

Page 2 of the Form

- **Button Assignments**

The feature buttons that can be assigned to the 7405D voice terminal are listed below. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the “Voice Terminals—General” section.

• abr-prog	• cov-msg-rt *	• night-ser
• abr-spchar	• data-ext	• normal *
• abrdg-appr	• date-time *	• per-COLine
• abrv-dial	• delete-msg *	• pms-alarm
• ac-alarm	• dial-icom	• pr-awu-alm
• aca-call	• directory *	• pr-pms-alm
• after-call	• dn-dst	• pr-sys-alm
• assist	• ds1-alarm	• print-msgs
• atd-qcalls *	• exclusion	• priority
• atd-qtime *	• ext-dn-dst *	• q-calls
• aut-msg-wt	• flash	• q-time
• auto-cback	• goto-cover	• release
• auto-icom	• grp-dn-dst *	• ringer-off
• auto-in	• hunt-ns	• rs-alert
• auto-wkup *	• in-call-id	• rsvn-call *
• aux-work	• inspect *	• send-calls
• brdg-appr †	• last-numb	• send-term
• busy-ind	• link-alarm	• serv-obsrv
• call-appr †	• lsvn-call *	• signal
• call-disp *	• lwc-cancel	• smdr1-alm
• call-fwd	• lwc-store	• smdr2-alm
• call-park †	• major-alm	• stored-num *
• call-pkup	• man-msg-wt	• stroke-cnt
• callr-info *	• man-overid *	• term-x-gr
• cas-backup	• manual-in	• timer *
• check-in *	• mj/mn alm	• trk-ac-alm
• check-out *	• msg-retr *	• trunk-name *
• clk-overid *	• mwn-act *	• trunk-ns
• consult	• mwn-deact *	• verify
• cov-cback	• next *	• work-code

* Display-type button (not administrable on Coverage Module form)

† Not administrable on Feature Module form

On the the 7405D voice terminal button number assignments, the first three buttons are defaulted as call appearances. As shown in the figures at the end of this section, the 7405D Voice Terminal can have an optional Function Key Module (administered as a Feature Module), Digital Display Module, and Coverage Module, respectively.

Page 3 of the Form

- **Feature Button Assignments**

The features buttons that can be assigned to the 7405D Page 3 form are the same as those listed for the preceding BUTTON ASSIGNMENTS. Display-type feature buttons may only be assigned if the Display field on Page 1 is “y.”

The figure entitled “7405D Voice Terminal” at the end of this section depicts the 7405D voice terminal button number assignments in relation to the button numbers on the Voice Terminal form.

Page x of the Form (Feature Module Button Assignments)

- Only displayed if the Feature Module field on Page 1 is “y.” The features buttons that can be assigned are the same as those listed for BUTTON ASSIGNMENTS above. (Call appearance and bridged call appearance buttons cannot be administered on this form.) Refer to the figure entitled “7405D Voice Terminal” for the button assignments locations (1 through 24) on the Function Key Module.

Page x of the Form (Coverage Module Button Assignments)

- Only displayed if the Coverage Module field on Page 1 is “y.”

The features buttons that can be assigned are the same as those listed for the preceding BUTTON ASSIGNMENTS (display-type buttons cannot be administered on this form). Refer to the figure entitled “7405D Voice Terminal” for the Coverage Module button locations.

Up to 10 call appearance, 10 abrdg-appr, and 10 brdg-appr buttons can be distributed between a Coverage Module and the associated administrable buttons on the 7405D Voice Terminal.

Page x of the Form (Display Button Assignments)

- Only displayed if the Display field on Page 1 is “y.” The display-type buttons that can be assigned are noted with an asterisk on the above list.

Page x of the Form (Data Module)

- Only displayed if the Data Module field on Page 1 is “y.” Refer to the “Station Forms—Field Descriptions” section in this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: 7405D	Lock Messages: <u>n</u>	COR : <u>1</u>
Port: _____	Security Code: <u> </u>	COS : <u>1</u>
Name: _____	Coverage Path: <u> </u>	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference?
Bridged Call Alerting? <u>n</u>	
	Restrict Last Appearance? <u>y</u>
Data Module? <u>n</u>	Feature Module? <u>n</u>
Display? <u>n</u>	Coverage Module? <u>n</u>

SCREEN 6-116. 7405D Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

BUTTON ASSIGNMENTS

1: call-appr

2: call-appr

3: call-appr

4: _____

5: _____

6: _____

7: _____

8: _____

9: _____

10: _____

SCREEN 6-117. 7405D Station Form (Page 2)—Example Only

Page 3 of x

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____	13: _____
2: _____	14: _____
3: _____	15: _____
4: _____	16: _____
5: _____	17: _____
6: _____	18: _____
7: _____	19: _____
8: _____	20: _____
9: _____	21: _____
10: _____	22: _____
11: _____	23: _____
12: _____	24: _____

SCREEN 8-118. 7405D Station Form (Page 3)—Example Only

Implementation Note:

This form is used to assign features to the 24 administrable buttons on the 7405D voice terminal (does not include Bridged Call Appearance buttons). Feature buttons to be assigned to the optional Function Key Module (administered as Feature Module) or Coverage Module, when used, must be assigned on their respective form(s) (covered later in this section).

Page x of x

STATION

FEATURE MODULE BUTTON ASSIGNMENTS

1: _____	13: _____
2: _____	14: _____
3: _____	15: _____
4: _____	16: _____
5: _____	17: _____
6: _____	18: _____
7: _____	19: _____
8: _____	20: _____
9: _____	21: _____
10: _____	22: _____
11: _____	23: _____
12: _____	24: _____

SCREENS-119. 7405D Feature Module Form

Implementation Note

Only displayed if the Feature Module field on Page 1 is "y."

Page x of x

STATION

COVERAGE MODULE BUTTON ASSIGNMENTS

1: _____	11: _____
2: _____	12: _____
3: _____	13: _____
4: _____	14: _____
5: _____	15: _____
6: _____	16: _____
7: _____	17: _____
8: _____	18: _____
9: _____	19: _____
10: _____	20: _____

SCREEN 6-120. 7405D Coverage Module Form—Example Only**Implementation Note**

Only displayed if the Coverage Module field on Page 1 is “y.”

Page x of x

STATION

DISPLAY BUTTON ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

SCREEN 6-121. 7405D Display Form—Example Only**Implementation Note**

Only displayed if the Display field on Page 1 is “y.” Button locations (1 through 7) are associated with buttons one through seven on the optional Digital Display Module.

Page x of x

STATION

DATA MODULE

Data Extension: _____ BCC: 2 ITC : restricted

Name: _____ COR: 1 COS : 1

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: _

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREENS 6-122. 7405D Data Module Form—Example Only

Implementation Note

This page is only displayed if the Data Module field on Page 1 is "y."

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOT LINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is "hot-line."

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is "default."

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line" or "default."

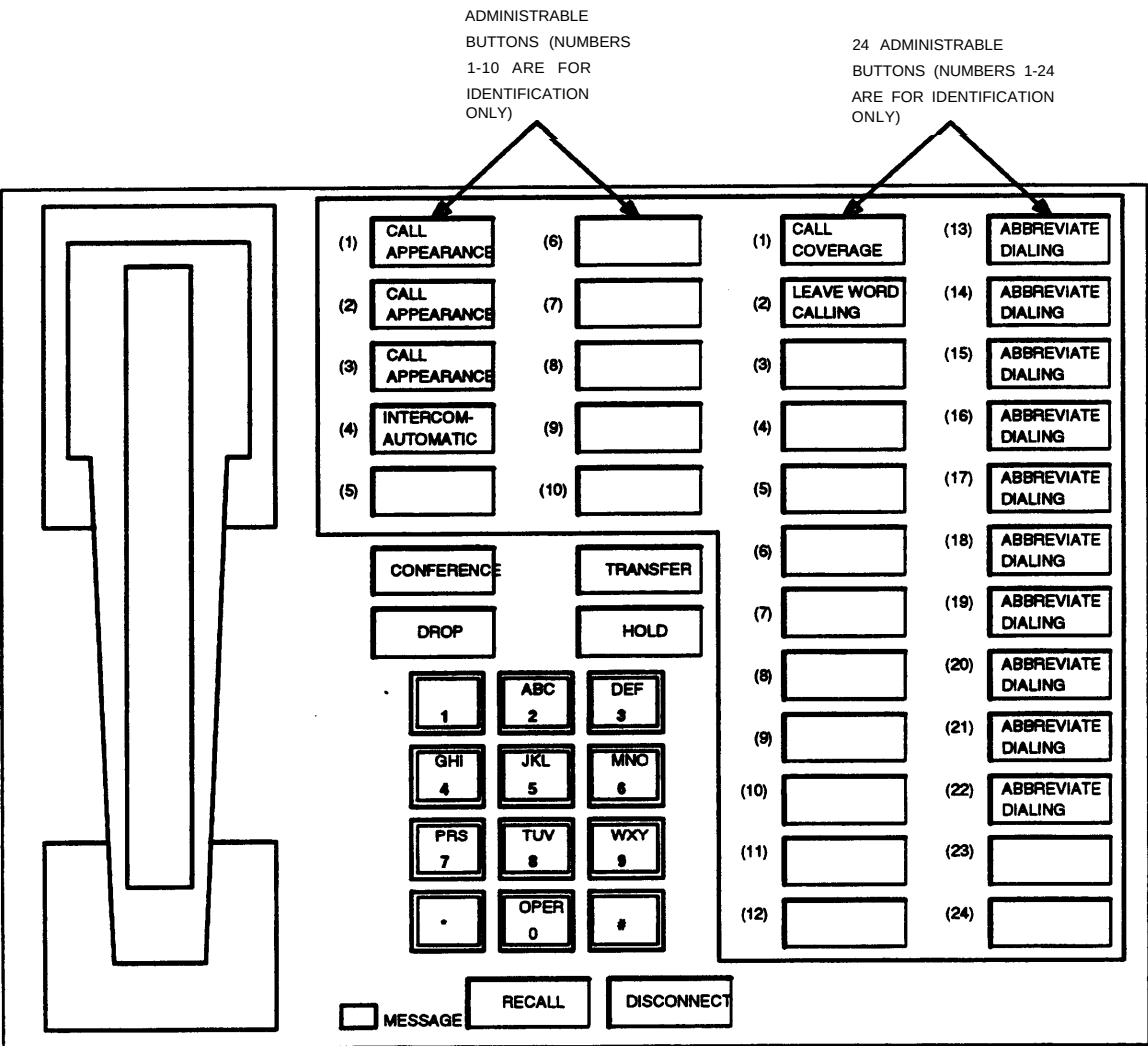


FIGURE 6-30. 7405D Voice Terminal

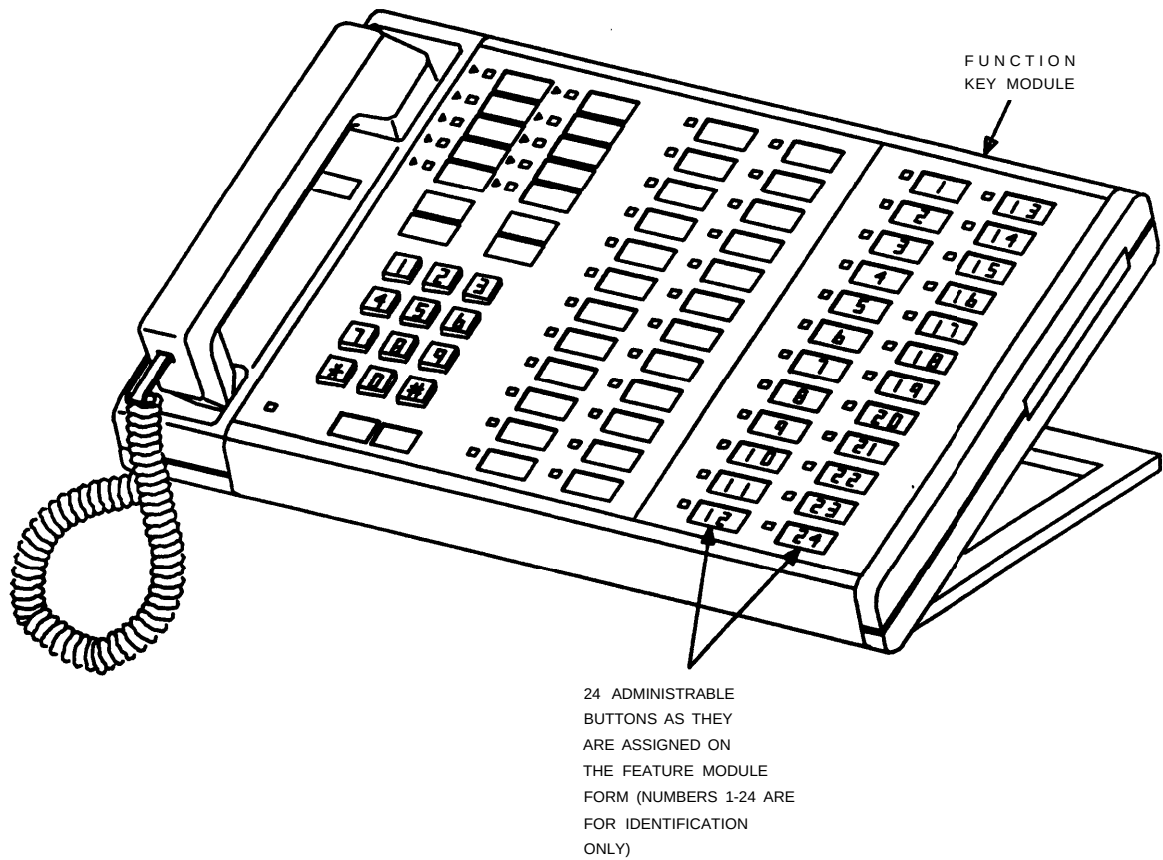


FIGURE 6-31. 7405D Voice Terminal With Optional Function Key Module

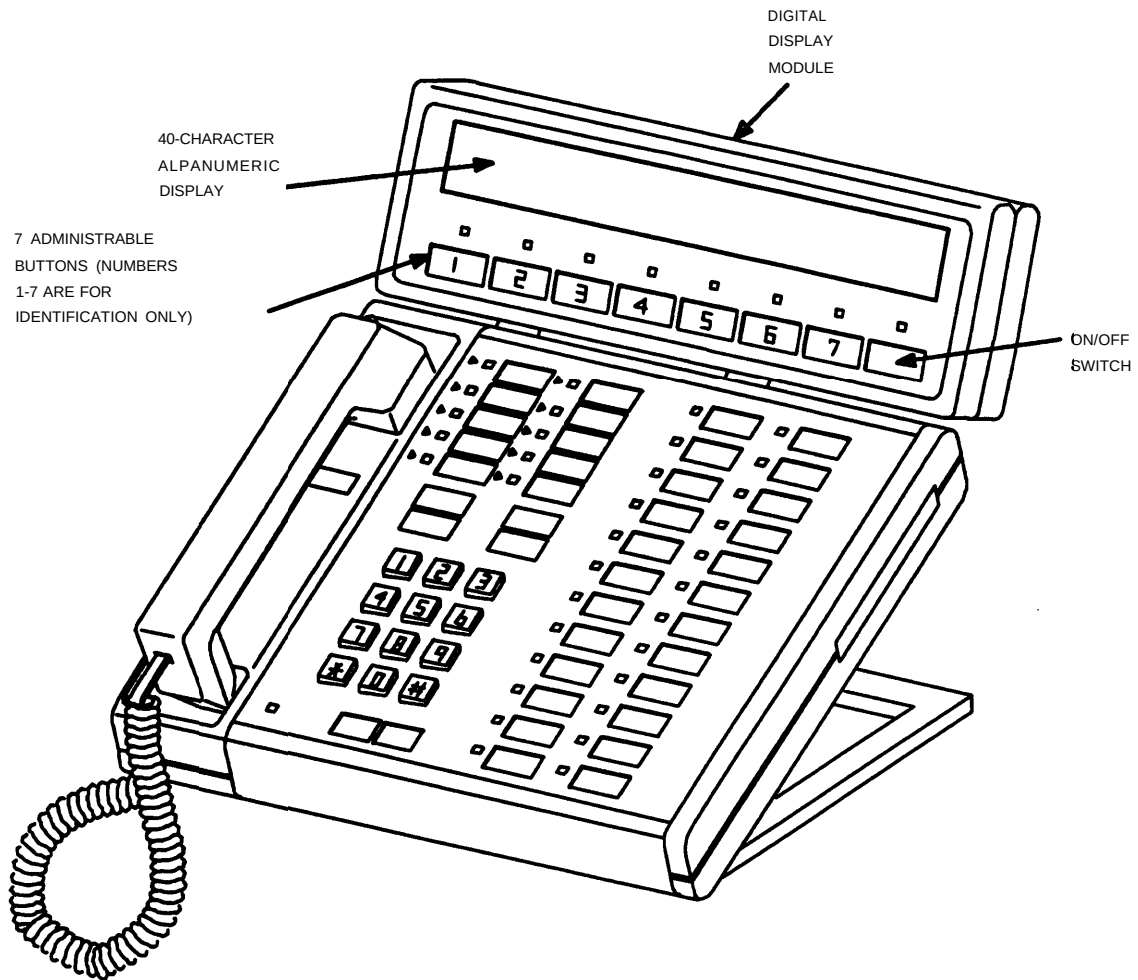


FIGURE 6-32. 7405D Voice Terminal With Optional Digital Display Module

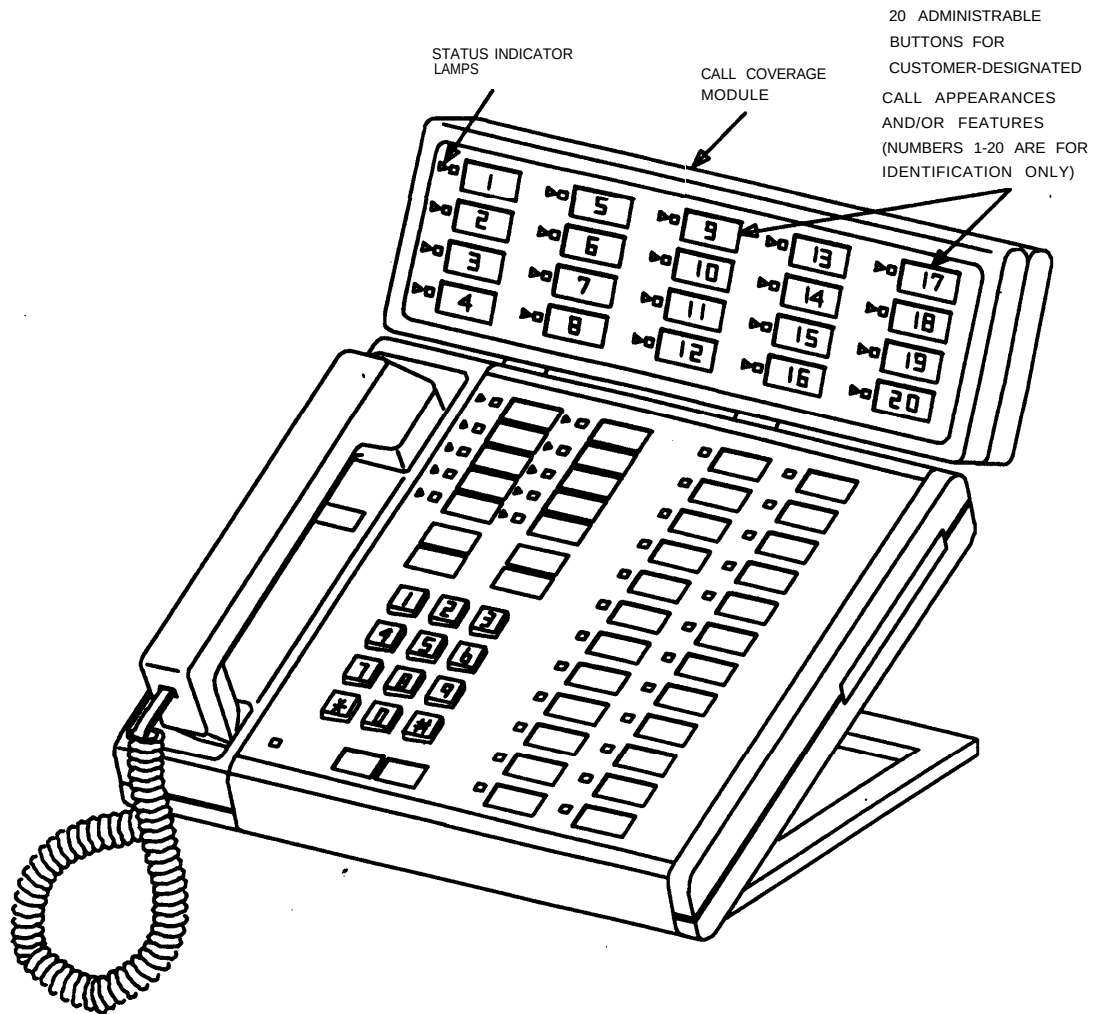


FIGURE 6-33. 7405D Voice Terminal With Optional Call Coverage Module

7406D and 7407D Voice Terminals

Purpose

This form is used to implement a 7406D and 7407D voice terminal.

Administration Commands

The following administration commands can be used to access the Voice Terminal forms. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station [xxxxx]	('count' 1-1600) type [print' or 'schedule']
list	station [xxxxx]	('count' 1-1600) port [print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the “Voice Terminals—General” information at least once before completing the form. General information including feature button descriptions and characteristic are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter “7406D” or “7407D” as appropriate.
- **Display Cartridge (7406D Only)**— Enter “y” if this terminal is to have a display via an associated data terminal.
- **Data Module**— Enter “y” if this voice terminal is equipped with an optional 703A Data Stand (7406D), a 702AL1-DSU (7407D), or 7400B Data Module (7406D or 7407D) and connected to an associated data terminal; otherwise, enter “n.” If “y” is entered, the Data Module form must be completed. Default is “y.”
- **Display**— Display-only field (set to “y”) for the 7407D. For the 7406D, enter “y” if the voice terminal is equipped with an optional digital display; otherwise, enter “n.”

For the 7407D form, the Display Button Assignments form must be completed. Default is “n.”

Page 2 of the Form

- **Headset**— For the 7406D, enter “y” if a headset is to be used; otherwise, enter “n.” Note that the 7407D cannot have a headset. Default is “n.”

- **Button Assignments**

The following list defines the feature buttons that can be assigned to the 7406D or 7407D voice terminals. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the “Voice Terminals—General” section.

Note: On set versions 7406D05A and 7406D06A, feature buttons [F2] and [F3] are preassigned and therefore, cannot be assigned as feature buttons.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-call
- after-call
- assist
- atd-qcalls *
- atd-qtime *
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- auto-wkup *
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-disp *
- call-fwd
- call-park
- call-pkup
- callr-info *
- cas-backup
- check-in *
- check-out *
- clk-overid *
- consult
- cov-cback
- cov-msg-rt *
- data-at
- date-time *
- delete-msg *
- dial-icom
- directory *
- dn-dst
- ds1-alarm
- exclusion
- ext-dn-dst *
- flash
- goto-cover
- grp-dn-dst *
- hunt-ns
- in-call-id
- inspect *
- last-numb
- link-alarm
- lsvn-call *
- lwc-cancel
- lwc-store
- major-alm
- man-msg-wt
- man-overid *
- manual-in
- mj/mn alm
- msg-retr *
- mwn-act *
- mwn-deact *
- next *
- night-ser
- normal *
- per-COLine
- pms-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- rsvn-call *
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1-alm
- smdr2-alm
- stored-num *
- stroke-cnt
- term-x-gr
- timer *
- trk-ac-alm
- trunk-name *
- trunk-ns
- verify
- work-code

* Display-type Button

The figures entitled “7406D Voice Terminal” and “7407D Voice Terminal” at the end of this section show the 7406D and 7407D voice terminal button number assignments in relation to the button numbers on the voice terminal form. The first three buttons are defaulted as call appearance.

Page 3 of the Form

- **Feature Button Assignments**

The features and functions that can be assigned to the 7406D or 7407D voice terminal administrable buttons are the same as those listed for BUTTON ASSIGNMENTS above.

The figures entitled “7406D Voice Terminal” and “7407D Voice Terminal” at the end of this section show the 7406D and 7407D voice terminal button number assignments in relation to the button numbers on the voice terminal form.

Page x of the Form (Display Button Assignment)

- Only displayed if the “Display Cartridge” or “Display” field on Page 1 (7406D form) is “y” or the Type field on Page 1 is “7407D.” The display buttons that can be administered are noted with asterisks on the above list (see BUTTON ASSIGNMENTS). The abbreviated names as shown on the lii must be entered on the form.

Page x of the Form (Data Module)

- Only displayed if the Data Module field on Page 1 is “y.” Refer to “Station Forms—Field Descriptions” section in this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: <u>7406D</u>	Lock Messages: <u>n</u>	COR: <u>1</u>
Port: _____	Security code: <u> </u>	COS: <u>1</u>
Name: _____	coverage Path: <u> </u>	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
Bridged Call Alerting? <u>n</u>	Personalized Ringing Pattern: <u>1</u>
	Restrict Last Appearance? <u>y</u>
Data Module? <u>n</u>	Display Cartridge? <u> </u>
Display? <u>n</u>	

SCREEN 6-123. 7406D Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

BUTTON ASSIGNMENTS

1: call-appr

4: _____

2: call-appr

5: _____

3: call-appr

SCREEN 6-124. 7406D Station Form (Page 2)—Example Only

Page 3 of x

STATION

FEATURE	BUTTON	ASSIGNMENTS
1:	_____	2: _____
5:	_____	3: _____
6:	_____	4: _____
7:	_____	12: _____
8:	_____	13: _____
9:	_____	14: _____
10:	_____	15: _____
11:	_____	16: _____
		17: _____
		18: _____

SCREEN 6-125. 7406D Station Form (Page 3)—Example Only

Implementation Note:

Buttons 5 through 11 are dual function buttons. An associated [Shift] button on the voice terminal is used to enable either buttons 5 through 11 or enable associated buttons 12 through 18.

Only buttons 1 through 4 have status lamps. It is recommended that feature button assignments requiring status lamp indications not be administered to buttons 5 through 18.

Page 1 of x

STATION

Extension: _____
 Type: 7407D
 Port: _____
 Name: _____

BCC: 0
 Lock Messages: n
 security Code:
 Coverage Path:

COR: 1
 COS: 1

FEATURE OPTIONS

LWC Reception? msa-spe
 LWC Activation? y
 SMDR Privacy? n
 Redirect Notification? y
 Bridged Call Alerting? n

 Data Module? n
 Display? y

Coverage Msg Retrieval? y
 Auto Answer? n
 Data Restriction? n
 Idle Appearance Preference? n
 Personalized Ringing Pattern:
 Restrict Last Appearance? y

SCREEN 6-126. 7407D Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? ☐

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

BUTTON ASSIGNMENTS

1: call-appr

2: call-appr

3: call-appr

4: _____

5: _____

6: _____

7: _____

8: _____

9: _____

10: _____

SCREEN 6-127. 7407D Voice Terminal Form (Page 2)—Example Only

Page 3 of x

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____	2: _____
3: _____	14: _____
4: _____	15: _____
5: _____	16: _____
6: _____	17: _____
7: _____	18: _____
8: _____	19: _____
9: _____	20: _____
10: _____	21: _____
11: _____	22: _____
12: _____	23: _____
13: _____	24: _____

SCREEN 6-128. 7407D Voice Terminal Form (Page 3)—Example Only

Implementation Note:

Only buttons 1 and 2 have status lamps. It is recommended that feature button assignments requiring status lamp indications not be administered to buttons 3 through 24.

Page x of x

STATION

DISPLAY BUTTON ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

SCREEN 6-129. 7406A and 7407D Station Form—Example Only

Implementation Note:

This page is only displayed when the Display Cartridge field on Page 1 (7406D form) is “y” or the Type field on Page 1 is “7407D.”

Page x of x

STATION

DATA MODULE

Data Extension: _____
 Name: _____

BCC: 2
 COR: 1

ITC: restricted
 COS: 1

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: _

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-130. 7406D and 7407D Data Module Form—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page 1 is “y.”

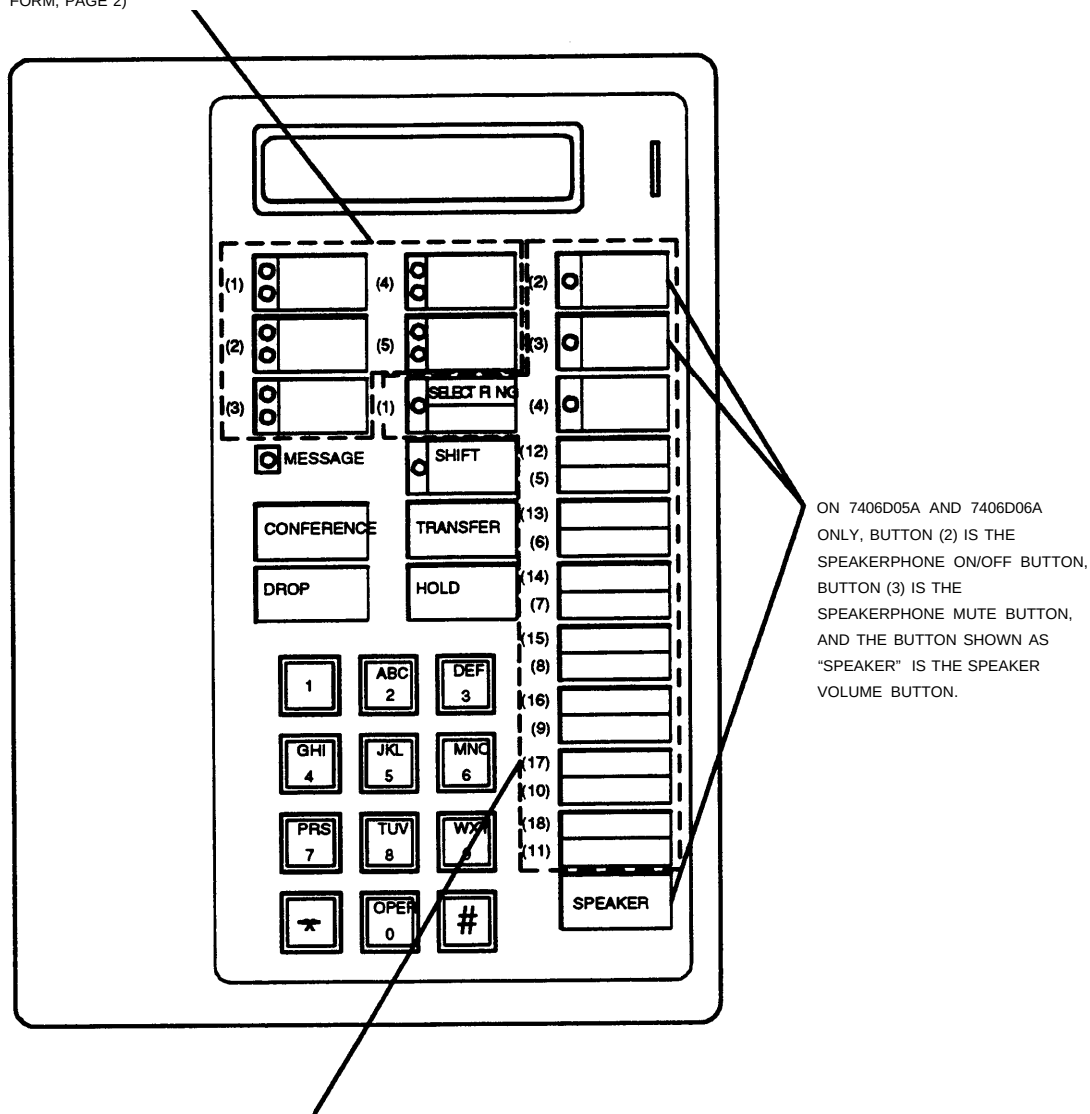
The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is “hot-line.”

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is “default.”

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is “hot-line” or “default.”

ADMINISTRABLE CALL APPEARANCE FEATURE
BUTTONS (NUMBERS CORRESPOND TO BUTTON
ASSIGNMENTS ON VOICE TERMINAL SCREEN
FORM, PAGE 2)



ADMINISTRABLE FEATURE-ONLY BUTTONS
(NUMBERS CORRESPOND TO FEATURE
BUTTON ASSIGNMENTS ON VOICE TERMINAL
SCREEN FORM, PAGE 3)

FIGURE 6-34. 7406D Voice Terminal

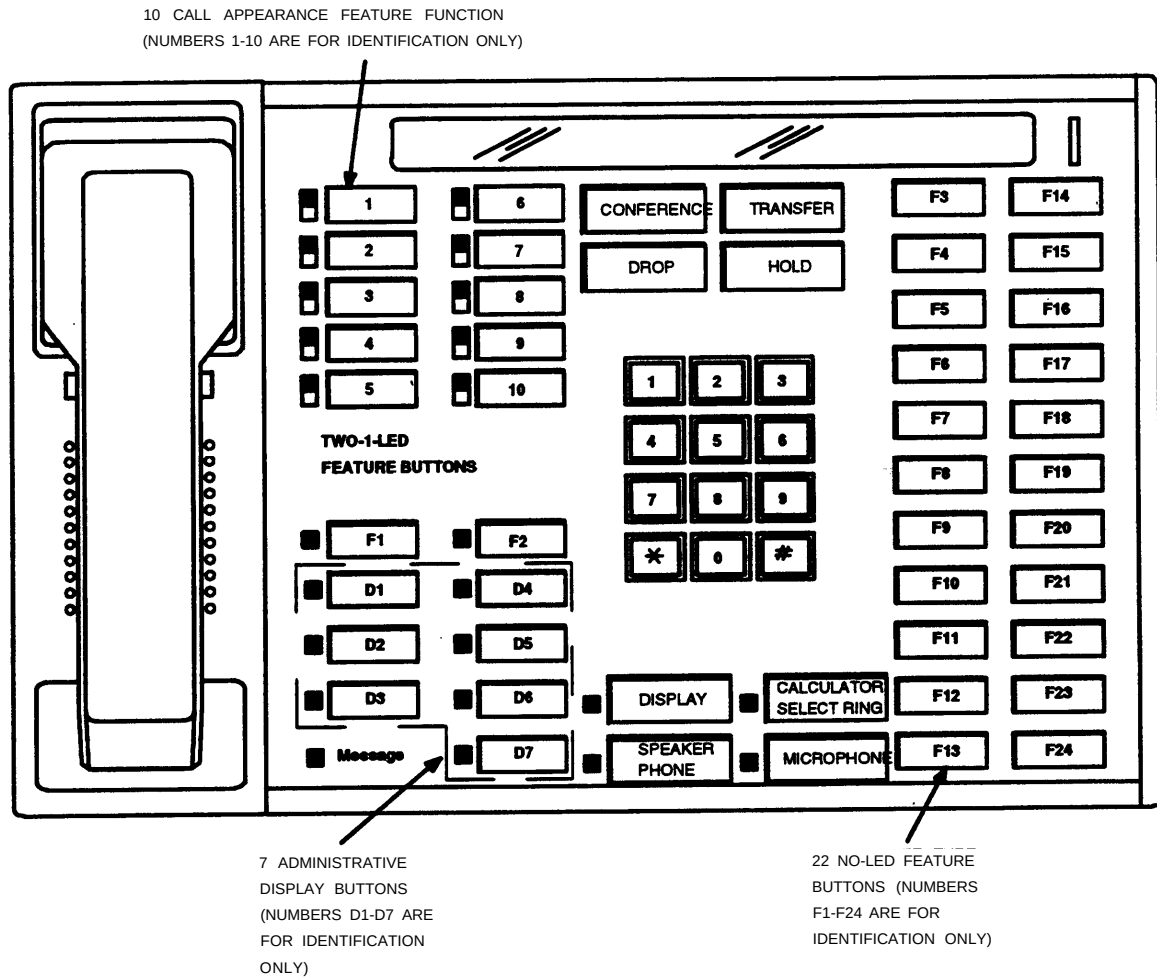


FIGURE 6-35. 7407D Voice Terminal

7410D Voice Terminal

Purpose

This form is used to implement a 7410D voice terminal.

Administration Commands

The following administration commands can be used to access the Voice Terminal form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the “Voice Terminals—General” information at least once before completing the form. General information including feature button descriptions and characteristic are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter “7410D.”
- **Data Module**— Enter “y” if this terminal is to be connected to a data terminal via optional 7400B Data Module; otherwise, enter “n.” If “y” is entered, the Data Module form must be completed. Allowable entries are “y” or “n.” Default is “n.”
- **Display**— Enter “y” (yes) if the voice terminal is to have a display via a 7400B Data Module and associated data terminal; otherwise, enter “n.” Default is “n.” If “y” is entered, the Display Button Assignments form must be completed.

Page 2 of the Form**• Button Assignments**

The feature buttons that can be assigned to the voice terminal are listed on the following page. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the "Voice Terminals-General" section.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-call
- after-call
- assist
- atd-qcalts *
- atd-qtime *
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- auto-wkup *
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-disp *
- call-fwd
- call-park
- call-pkup
- callr-info *
- cas-backup
- check-in *
- check-out *
- clk-overid *
- consult
- cov-cback
- cov-msg-rt *
- data-ext
- date-time *
- delete-msg *
- dial-icom
- directory *
- dn-dst
- ds1-alarm
- exclusion
- ext-dn-dst *
- flash
- goto-cover
- grp-dn-dst *
- hunt-ns
- in-call-id
- inspect *
- last-numb
- link-alarm
- lsvn-call
- lwc-cancel
- lwc-store
- major-alm
- man-msg-wt
- man-overid *
- manual-in
- mj/mn alm
- msg-retr *
- mwn-act *
- mwn-deact *
- next *
- night-ser
- normal *
- per-COLine
- pms-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- rsvn-call
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1-alm
- smdr2-alm
- stored-num *
- stroke-cnt
- term-x-gr
- timer *
- trk-ac-alm
- trunk-name *
- trunk-ns
- verify
- work code

* Display-type buttons

The figure entitled “7410D Voice Terminal” show the 7410D voice terminal button number assignments in relation to the button numbers on the Voice Terminal Form.

Page x of the Form (Data Module)

- Only displayed if the Data Module field on Page 1 is “y.” Refer to “Station Forms—Field Descriptions” section in this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____	BCC : 0	
Type: <u>7410D</u>	Lock Messages: <u>n</u>	COR : <u>1</u>
Port: _____	Security Code: _____	COS : <u>1</u>
Name: _____	coverage Path: _	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
Bridged Call Alerting? <u>n</u>	Restrict Last Appearance? <u>y</u>
Data Module? <u>n</u>	

SCREEN 6-131. 7410D Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of 3

STATION

NON-SWITCH DATA

Room: _____
Jack: _____
Cable: _____

Headset? ☐

ABBREVIATED DIALING

List1: _____

List2 : _____

List3: _____

BUTTON ASSIGNMENTS

1: call-appr
2: call-appr
3: call-appr
4: _____
5: _____

6: _____
7: _____
8: _____
9: _____
10: _____

SCREEN 6-132. 7401D, 7403D, 7404D Station Form (Page 2)—Example Only**Implementation Note:**

Button Assignments:

- 7401D 1 through 9 only displayed. Buttons 1 and 2 not administrable (that is, assigned as “call-appr”). Button 3 maybe assigned as required.
- 7403D 1 through 10 displayed.
- 7404D 1 through 6 only displayed. Buttons 1 through 3 must be assigned as “call-appr.”

Page 3 of 3

STATION

DATA MODULE

Data Extension: _____ BCC: 2 ITC: restricted
 Name: _____ COR: 1 COS: 1

ABBREVIATED DIALING

List1: _____
 SPECIAL DIALING OPTION: _____
 HOT LINE DESTINATION
 DEFAULT DIALING
 Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-133. 7410D Data Module Form (Page 3)—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page list 1 is "y."

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is "hot-line."

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is "default."

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line" or "default."

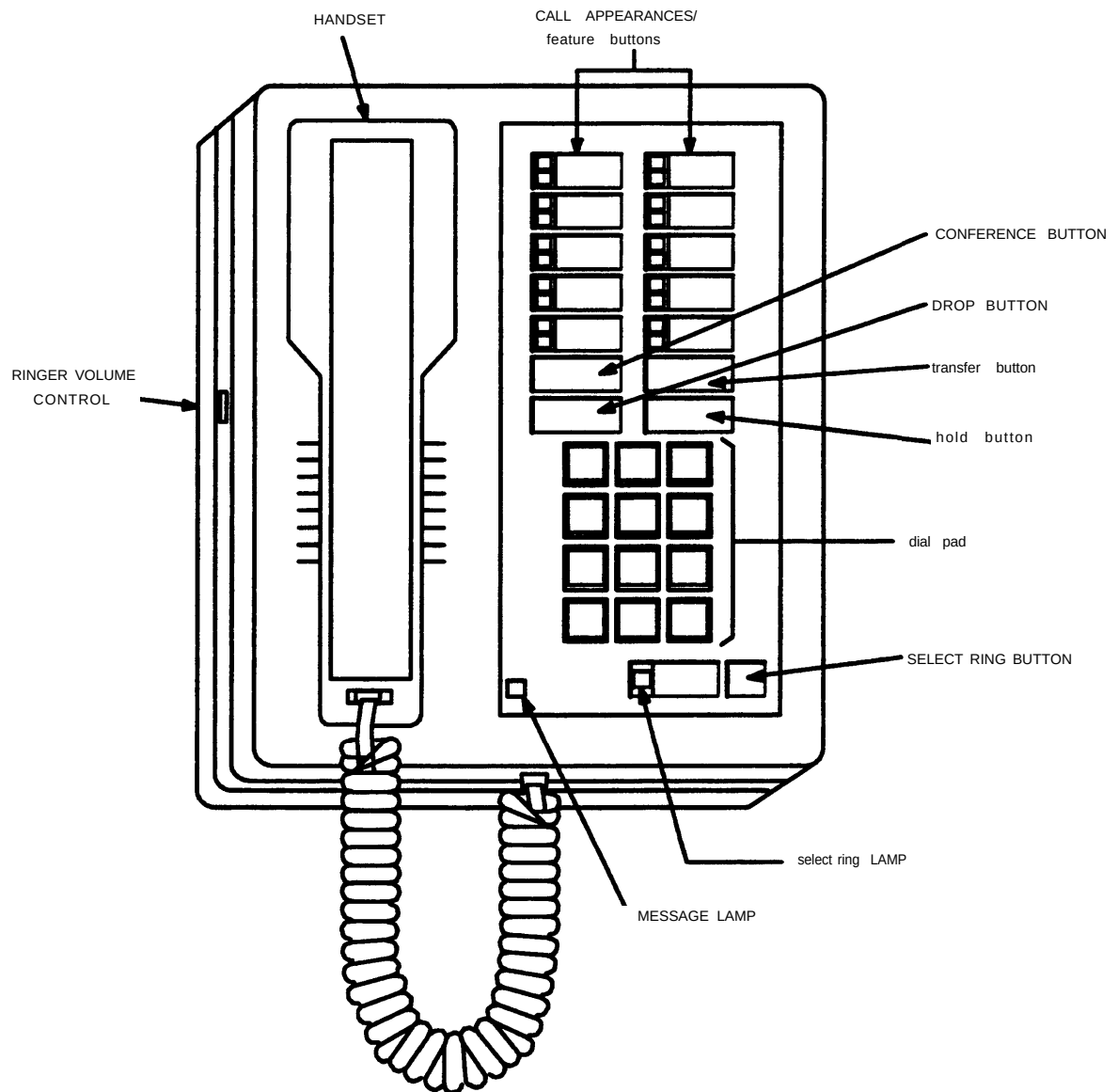


FIGURE 6-36. 7410D Voice Terminal

7434D Voice Terminal

Purpose

This form is used to implement a 7434D multi-appearance voice terminal.

Administration Commands

The following administration commands can be used to access the Voice Terminal form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the "Voice Terminals-General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter "7434D."
- **Data Module**— Enter "y" if this terminal is connected to an optional 7400B Data Module; otherwise, enter "n." If a "y" is entered, the Data Module form (Page x) must be completed. Default is "n."
- **Display**— Enter "y" if the voice terminal is to have a display by an optional Digital Display Module; otherwise enter "n." If "y" is entered, the Display Button assignments form must be completed. Default is "n."
- **Coverage Module**— Enter "y" if the voice terminal is to be connected to an optional Call Coverage Module; otherwise enter "n." If "y" is entered, the Coverage Module form must be completed. The voice terminal cannot have an optional Coverage Module and optional Digital Display Module at the same time. Default is "n."

Page 2 of the Form

- **Button Assignments**

The feature buttons that can be assigned to the 7434D voice terminal are listed on the following page. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the “Voice Terminals—General” section.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-call
- after-cd
- assist
- atd-qcalls *
- atd-qtime *
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- auto-wkup *
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-disp *
- call-fwd
- call-park
- call-pkup
- callr-info *
- cas-backup
- check-in *
- check-out *
- clk-overid *
- consult
- cov-cback
- mv-msg-rt *
- data-ext
- date-time *
- delete-msg *
- dial-icom
- directory *
- dn-dst
- ds1-alarm
- exclusion
- ext-dn-dst *
- flash
- goto-cover
- grp-dn-dst *
- hunt-ns
- in-call-id
- inspect *
- last-numb
- link-alarm
- lsvn-call *
- lwc-cancel
- lwc-store
- major-alarm
- man-msg-wt
- man-overid *
- manual-in
- mj/mn alm
- msg-retr *
- mwn-act *
- mwn-deact *
- next *
- night-ser
- normal *
- per-COline
- pms-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- rsvn-call *
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1-alm
- smdr2-alm
- stored-num *
- stroke-cnt
- term-x-gr
- timer *
- trk-ac-alm
- trunk-name *
- trunk-ns
- verify
- work-code

- Display-type button

The figure entitled “7434D Voice Terminal” at the end of this section shows the 7434D voice terminal button number assignments in relation to the button numbers on the Voice Terminal form. The first three buttons are defaulted as call appearance. To see drawings of the 7434D with an optional Coverage Module and Display Module, respectively, refer to the last two figures in this section.

Page 3 of the Form

- **Feature Button Assignments**

The features buttons that can be assigned are the same as those listed for BUTTON ASSIGNMENTS above. The abbreviated name as shown on the list must be entered on the form.

The figure entitled “7434D Voice Terminal” shows the 7434D voice terminal button number assignments in relation to the button numbers on the Voice Terminal form.

Page x of the Form (Coverage Module Button Assignments)

- Only displayed if the Coverage Module field on Page 1 is “y.” The features buttons that can be assigned are the same as those listed for BUTTON ASSIGNMENTS above except that display-type buttons cannot be assigned. The abbreviated name as shown on the list must be entered on the form.

A minimum of two or a maximum of 10 call appearance buttons can be administered. When two call appearance buttons are administered, the maximum number of Bridged Appearance buttons that can be administered is 52 or 32 with or without a Coverage Module, respectively.

Page x of the Form (Display Button Assignment)

- Only displayed if the Display field on Page 1 is “y.” The display-type buttons that can be assigned are shown on the preceding BUTTON ASSIGNMENTS list. Display-type buttons are noted with an asterisk. The abbreviated name as shown on the list must be entered on the button field on the form.

Page x of the Form (Data Module)

- Only displayed if the Data Module field on Page 1 is “y.” Refer to the “Station Forms-Field Descriptions” section in this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: <u>7434D</u>	Lock Messages: <u>n</u>	COR: <u>1</u>
Port: _____	Security Code: _____	COS: <u>1</u>
Name: _____	coverage Path: _	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
Bridged Call Alerting? <u>n</u>	Personalized Ringing Pattern: <u>1</u>
	Restrict Last Appearance? <u>y</u>
Data Module? <u>n</u>	
Display? <u>n</u>	Coverage Module? <u>n</u>

SCREEN 6-134. 7434D Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____
Jack: _____
Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____
List2: _____
List3: _____

BUTTON ASSIGNMENTS

1: sail-appr
2: sail-addr
3: sail-appr
4: _____
5: _____

6: _____
7: _____
8: _____
9: _____
10: _____

SCREEN 6-135. 7434D Station Form (Page 2)—Example Only

Page 3 of x

STATION

BUTTON ASSIGNMENTS

11: _____	23: _____
12: _____	24: _____
13: _____	25: _____
14: _____	26: _____
15: _____	27: _____
16: _____	28: _____
17: _____	29: _____
18: _____	30: _____
19: _____	31: _____
20: _____	32: _____
21: _____	33: _____
22: _____	34: _____

SCREEN 6-136. 7434D Station Form (Page 3)—Example Only**Implementation Note:**

This form is used to assign features to the 24 administrable buttons on the 7434D voice terminal (may include call appearance and bridged call appearance buttons). Feature buttons to be assigned to the optional Coverage Module, when used, must be assigned on its respective form (see next page).

Page x of x

STATION

COVERAGE MODULE BUTTON ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

8: _____

9: _____

10: _____

11: _____

12: _____

13: _____

14: _____

15: _____

16: _____

17: _____

18: _____

19: _____

20: _____

SCREEN 6-137. 7434D Coverage Module Form

Implementation Note:

Only displayed if the Coverage Module field on Page 1 is “y.”

Do not administer display-type buttons (for example, inspect, normal) on this form.

Page x of x

STATION

DISPLAY BUTTON ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

SCREEN 6-138. 7434D Display Form

Implementation Note:

Only displayed if the Display field on Page 1 is "y." Button locations (1 through 7) are associated with buttons 1 through 7 on the optional Digital Display Module.

Page x of x

STATION

DATA MODULE

Data Extension: _____

Name: _____

BCC: 2

COR: 1

ITC: restricted

COS: 1

ABBREVIATED DIALING

List1: _____

SPECIAL DIALING OPTION: _____

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext

Name

1:

SCREEN 6-139. 7434D Data Module Form—Example Only

Implementation Note:

This page is only displayed if the Data Module field on Page 1 is “y.”

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOT LINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is “hot-line.”

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is “default.”

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is “hot-line” or “default.”

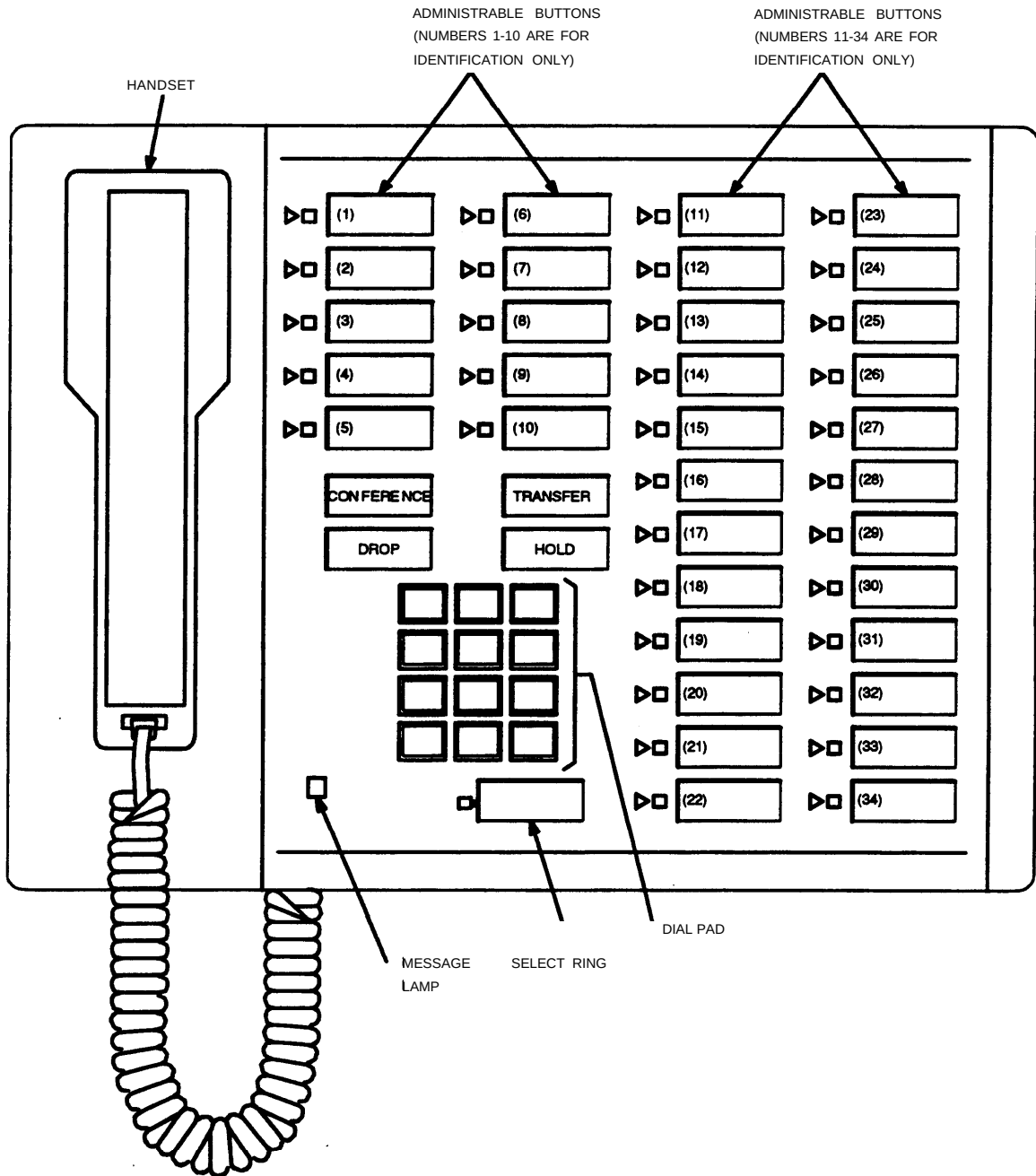


FIGURE 6-37. 7434D Voice Terminal

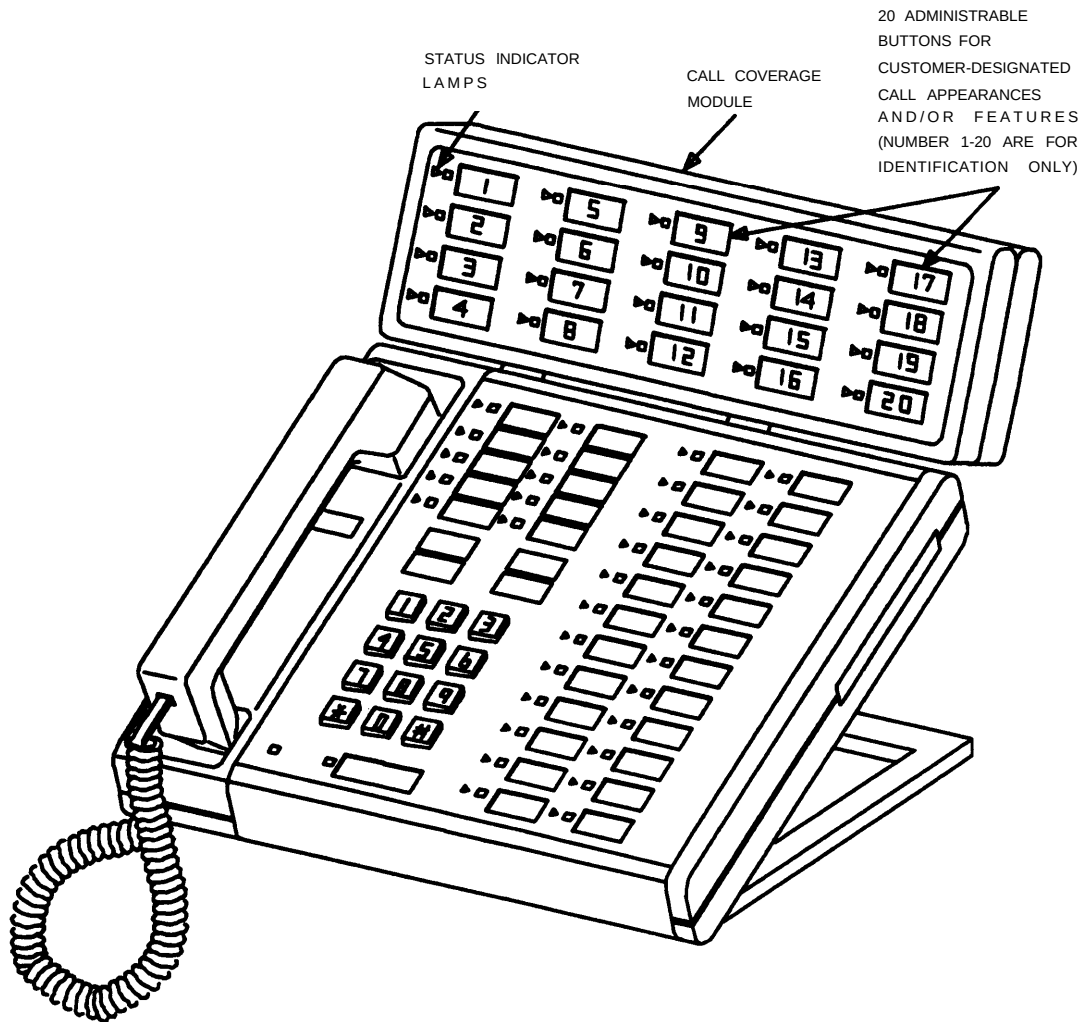


FIGURE 6-38. 7434D Voice Terminal With Optional Call Coverage Module

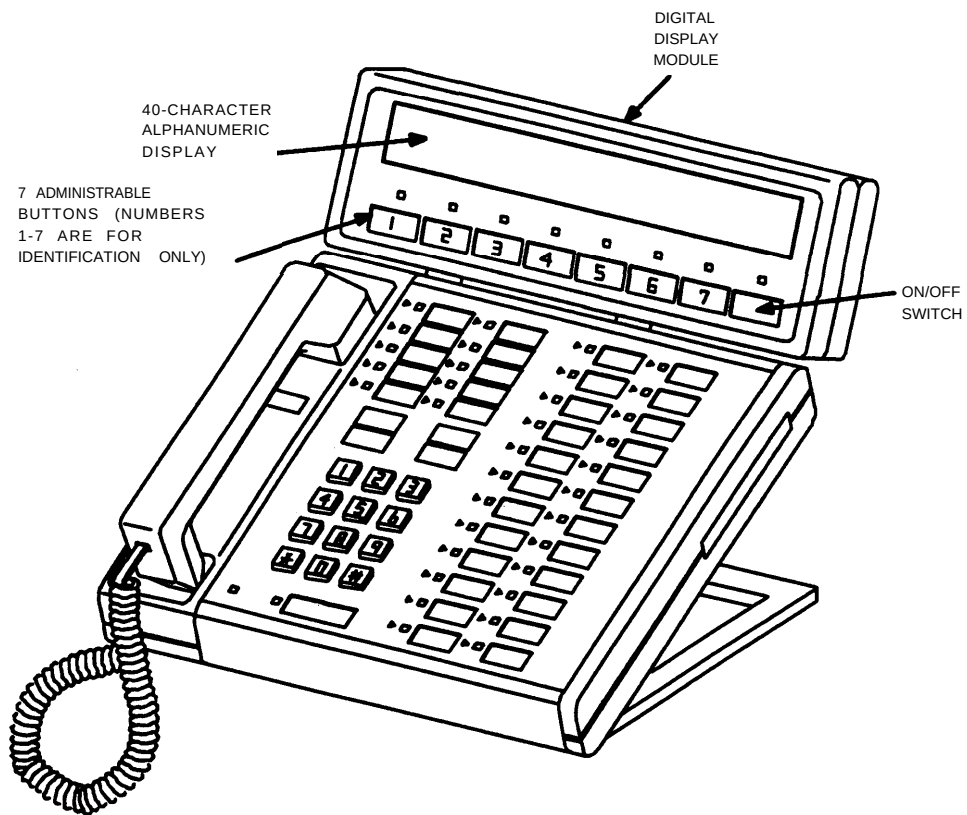


FIGURE 6-39. 7434D Voice Terminal With Optional Digital Display Module

Callmaster Digital Voice Terminal

Purpose

This form is used to assign the Callmaster™ digital voice terminal. The terminal may also be used to support the ACD feature.

Administration Commands

The following administration commands can be used to access the Voice Terminal form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the "Voice Terminals-General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter "602A1."
- **Data Module**— Enter "y" if this terminal is connected to a data terminal via 7400B Data Module, otherwise, enter "n." If "y" is entered, the Data Module form must be completed. Allowable entries are "y" or "n." Default is "n."
- **Display**— Display-only field; restricted to "y." Display-type buttons are administered on Page 3 of the form.

Page 2 of the Form**• Button Assignments**

The feature buttons that can be assigned to the Callmaster digital voice terminal are listed below. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the “Voice Terminals—General” section.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-all
- after-call
- assist
- atd-qcalls *
- atd-qtime *
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- auto-wkup *
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-disp *
- call-fwd
- call-park
- call-pkup
- callr-info *
- cas-backup
- check-in *
- check-out *
- clk-overid *
- consult
- cov-cback
- cov-msg-rt *
- data-ext
- date-time *
- delete-msg *
- dial-icom
- directory *
- dn-dst
- ds1 -alarm
- exclusion
- ext-dn-dst *
- flash
- goto-cover
- grp-dn-dst *
- hunt-ns
- in-call-id
- inspect *
- last-numb
- link-alarm
- lsvn-call *
- lwc-cancel
- lwc-store
- major-alm
- man-msg-wt
- man-overid *
- manual-in
- mj/mn alm
- msg-retr *
- mwn-act *
- mwn-deact *
- next *
- night-ser
- normal *
- per-COline
- pms-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- rsvn-call *
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1 -alarm
- smdr2-alm
- stored-num *
- stroke-cnt
- term-x-gr
- timer *
- trk-ac-alm
- trunk-name *
- trunk-ns
- verify
- work-code

* Display-type button

The figure entitled “Callmaster Digital Voice Terminal” at the end of this section shows the Callmaster digital voice terminal's button locations in relation to the button numbers on the forms.

Page x of the Form

- **Feature Button Assignments**

The features and functions that can be assigned to the terminal's administrable buttons are the same as those for BUTTON ASSIGNMENTS above. The abbreviated name as shown on the list must be entered on the form. At least two buttons must be administered as call appearances.

Page x of the Form (Data Module)

- Only displayed if the Data Module field on Page 1 is “y.” Refer to “Station Forms—Field Descriptions” section in this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____	BCC : 0	
Type: <u>602A1</u>	Lock Messages: <u>n</u>	COR : <u>1</u>
Port: _____	Security Code: _____	COS : <u>1</u>
Name: _____	coverage Path: _____	

FEATURE OPTIONS

LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>
LWC Activation? <u>y</u>	Auto Answer ? <u>n</u>
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>
Redirect Notification? <u>y</u>	Idle Appearance Preference? <u>n</u>
Bridged Call Alerting? <u>n</u>	Personalized Ringing Pattern: _____
	Restrict Last Appearance? <u>y</u>
Data Module? <u>n</u>	
Display? <u>y</u>	

SCREEN 6-140. 602A1 Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters customer-options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Headset? n

J a c k : _

Cable: _____

ABBREVIATED DIALING

List1: _____

List2: _____

List3: _____

BUTTON ASSIGNMENTS

1: call-appr

6: _____

2: call-appr

7: _____

3: call-appr

8: _____

4: _____

9: _____

5: _____

10: _____

SCREENS-141. 602A1 Station Form (Page 2)—Example Only

Implementation Note:

At least two BUTTON ASSIGNMENT buttons must be assigned to call-appr (call appearance.)

Page 3 of x

STATION

FEATURE BUTTON ASSIGNMENTS

1st column	2nd Column
1: _____	7: _____
2: _____	8: _____
3: _____	9: _____
4: _____	10: _____
5: _____	11: _____
6: mute	12: _____
3rd Column	
13: _____	
14: _____	
15: _____	
16: _____	
17: _____	
18: _____	

SCREEN 6-142. 602A1 Station Form (Page 3)—Example Only

Implementation Note:

Feature button [6] is preassigned as a mute button (not administrable).

Page x of x

STATION

DATA MODULE

Data Extension: —
 Name:

BCC : 2
 COR : 1

ITC: restricted
 COS : 1

ABBREVIATED DIALING

List1:

SPECIAL DIALING OPTION: —

HOT LINE DESTINATION

DEFAULT DIALING

Abbreviated Dialing Dial Code (From above list): -

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext

Name

1:

SCREEN 6-143. 602A1 Data Module Form—Example Only

Implementation Note:

This page is only displayed if the Data Module field on Page 1 is “y.”

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is “hot-line.”

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is “default.”

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is “hot-line” or “default.”

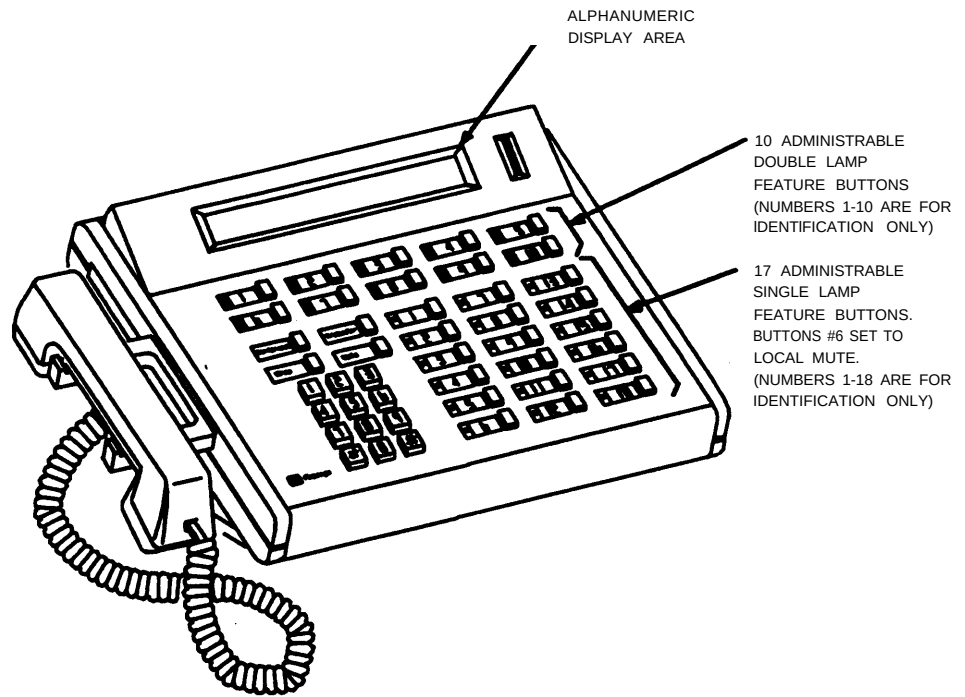


FIGURE 6-40. Callmaster Digital Voice Terminal

Personal Computer (PC)—6300 PC/PBX Connection

Purpose

This form is used to implement a PC/PBX Connection. The PC can be either an AT&T PC 6300 Personal Computer (or other compatible PC) which can be used with a 7400D series voice terminal to form a workstation arrangement. [Refer to “Personal Computer (PC)—CO PC/PBX Connection” in this Chapter for additional information and typical connections.]

Administration Commands

The following administration commands can be used to access the form. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxxx (extension number)
duplicate	station	
list	station	[xxxxx] ('count' 1-1600) type ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1600) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the “Voice Terminals-General” information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

- **Type**— Enter “pc.”
- **Set**— Enter the digital voice terminal type the PC is connected to. Allowable entries are “7401 D,” “7403D,” “7404D,” “7405D,” “7406D,” “7407D,” 7434D, and “602A1.”
- **PCOL**— TEG Call Alerting-Enter “y” if the PC user will be alerted on an incoming PCOLG/TEG call; otherwise, enter “n.” Default is “n.”
- **Data Module**— Display-only (set to “y”).
- **Display**— Display-only (set to “y”).

Page 2 of the Form

• **Button Assignments**

The feature buttons that can be assigned to the associated voice terminal are listed below. The abbreviated software name (that is, administrable name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the "Voice Terminal—General" section.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-wall
- after-call
- assist
- atd-qcalls *
- atd-qtime *
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- auto-wkup *
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-disp *
- call-fwd
- call-park
- call-pkup
- callr-info *
- cas-backup
- check-in *
- check-out *
- clk-overid *
- consult
- cov-cback
- Cov-msg-rt *
- data-ext
- date-time *
- delete-msg *
- dial-icom
- directory *
- dn-dst
- ds1 -alarm
- exclusion
- ext-dn-dst *
- flash
- goto-cover
- grp-dn-dst *
- hunt-ns
- in-call-id
- inspect *
- last-numb
- link-alarm
- lsvn-call *
- lwc-cancel
- lwc-store
- major-alm
- man-msg-wt
- man-overid *
- manual-in
- mj/mn alm
- msg-retr *
- mwn-act *
- mwn-deact *
- next *
- night-ser
- normal *
- per-COine
- pms-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- rsvn-call *
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1 -alm
- smdr2-alm
- stored-num *
- stroke-cnt
- term-x-gr
- timer *
- trk-ac-alm
- trunk-name *
- trunk-ns
- verify
- work-code

* Display-type buttons

Page 3 of the Form

- **Feature Button Assignments**

The feature buttons that can be administered are the same as those for BUTTON ASSIGNMENTS above. The abbreviated name as shown on the list must be entered on the form.

Page x of the Form (Display Button Assignments)

Administer display-type buttons as required. Display-type buttons are noted with an asterisk on the above BUTTON ASSIGNMENTS list. The abbreviated name as shown on the list must be entered on the form.

Page x of the Form (Data Module)

Complete the Data Module fields as required. Refer to “Station Forms—Field Descriptions” section in this chapter for associated field descriptions.

Page 1 of x

STATION

Extension: _____

BCC : 0

Type: PC Set: 7404D
Port: _____
Name: _____

Lock Messages: n
Security Code:
Coverage Path:

COR : 1
COS : 1

FEATURE OPTIONS

LWC Reception? msa-spe
LWC Activation? y
SMDR Privacy? n
Redirect Notification? y
PCOL/TEG Call Alerting? n

Data Module? y
Display Module? y

Coverage Msg Retrieval? y
Auto Answer ? n
Data Restriction? n
Idle Appearance Preference? n

Restrict Last Appearance? y

SCREEN 6-144. PC Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____

List2: _____

List3 : _____

BUTTON ASSIGNMENTS

1: call-appr (F1)

2: call-appr (F3)

3: call-appr (F5)

4: _____ (F7)

5: _____ (AF1)

6: _____ (AF3)

7: _____ (AF5)

8: _____ (AF7)

9: _____ (AF2)

10: _____ (AF4)

SCREEN 6-145. PC Station Form (Page 2)—Example Only

Implementation Note:

Characters in parenthesis (F1), (F2), etc., represent button locations on the PC.

Page 3 of x

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

8: _____

9: _____

10: _____

11: _____

12: _____

13: _____

14: _____

15: _____

16: _____

17: _____

18: _____

19: _____

20: _____

21: _____

22: _____

23: _____

24: _____

SCREEN 6-146. PC Station Form (Page 3)—Example Only

Page x of x

STATION

DISPLAY BUTTON ASSIGNMENTS

1: _____ (CF1)
2: _____ (CF2)
3: _____ (CF3)
4: _____ (CF4)
5: _____ (CF5)
6: _____ (leave blank)
7: _____ (leave blank)

SCREEN 6-147. PC Station Form—Example Only

Page x of x

STATION

DATA MODULE

Data Extension: _____ BCC: 2
Name: _____ COR: 1 COS : 1
ABBREVIATED DIALING
List1: _____
SPECIAL DIALING OPTION: _____
HOT LINE DESTINATION
DEFAULT DIALING
Abbreviated Dialing Dial Code (From above list): _
ASSIGNED MEMBER (Station with a data extension button for this data module)
Ext Name
1:

SCREEN 6-148. PC Data Module For—Example Only
Implementation Note:

This page is only displayed if the Data Module field on Page 1 is “y.”

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

HOTLINE DESTINATION only displayed when the SPECIAL DIALING OPTION field is “hot-line.”

DEFAULT DIALING only displayed when the SPECIAL DIALING OPTION field is “default.”

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is “hot-line” or “default.”

7309H Voice Terminal

Page 1 of 1

STATION

Extension: _____ BCC: 0

Type: 7309H Lock Messages: _ COR: _ Room: _____

Port: _____ security Code: _ COS: _ Jack: _____

Name: _____ coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? _

Lwc Activation? _ Auto Answer? _ Data Restriction? _

Redirect Notification? _ Idle Appearance Preference? _

Bridged Call Alerting? _ Personalized Ringing Pattern: _

Restrict Last Appearance? _

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: _____	6: _____
2: _____	7: _____
3: _____	8: _____
4: _____	9: _____
5: _____	10: _____

SCREEN 6-149. 7309H Voice Terminal Station Form—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

The first three Button Assignment fields may only be assigned as call-appr (call appearance).

7303S Voice Terminal

Page 1 of 1

STATION

Extension: _____ BCC: 0
 Type: 73035 Lock Messages: _ COR: _ Room: _____
 Port: _____ Security Code: _ COS: _ Jack: _____
 Name: _____ coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? -
 LWC Activation? _ Auto Answer? _ Data Restriction? _
 Redirect Notification? _ Idle Appearance Preference? _
 Bridged Call Alerting? _ Personalized Ringing pattern: _
 Restrict Last Appearance? _

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: _____	6: _____
2: _____	7: _____
3: _____	8: _____
4: _____	9: _____
5: _____	10: _____

SCREEN 6-150. 7303S Voice Terminal Station Form—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI options enabled on the System-Parameters Customer-Options form.

The first three Button Assignments fields may only be assigned as call-appr (call appearance).

7305S Voice Terminal

Page 1 of 2			
STATION			
Extension: _____	BCC: 0		
Type: <u>7305S</u>	Lock Messages: _	COR: _	Room: _____
Port: _____	security Code: _____	COS: _	Jack: _____
Name: _____	Coverage Path: _	Cable: _____	
FEATURE OPTIONS			
LWC Reception? _____	Headset? _	Coverage Msg Retrieval? _	
LWC Activation? _	Auto Answer? _	Data Restriction? _	
Redirect Notification? _		Idle Appearance Preference? _	
Bridged Call Alerting? _		Personalized Ringing Pattern: _	
		Restrict Last Appearance? _	
ABBREVIATED DIALING			
List1: _____	List2: _____	List3: _____	
BUTTON ASSIGNMENTS			
1: _____	6: _____		
2: _____	7: _____		
3: _____	8: _____		
4: _____	9: _____		
5: _____	10: _____		

SCREEN 6-151. 7305S Voice Terminal Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI options is enabled on the System-Parameters Customer-Options form.

The first three Button Assignments fields may only be assigned as call-appr (call appearance).

Page 2 of 2

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____	13: _____
2: _____	14: _____
3: _____	15: _____
4: _____	16: _____
5: _____	17: _____
6: _____	18: _____
7: _____	19: _____
8: _____	20: _____
9: _____	21: _____
10: _____	22: _____
11: _____	23: _____
12: _____	24: _____

**SCREEN 6-152. 7305S Voice Terminal Feature Button Assignments Form (Page 2)—
Example Only**

7401D Voice Terminal

Page 1 of 2

STATION

Extension: _____ BCC: 0
 Type: 7401D Lock Messages: _ COR: _ Room: _____
 Port: _____ Security Code: _____ COS: _ Jack: _____
 Name: _____ Coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? _
 LWC Activation? _ Auto Answer? _ Data Restriction? _
 Redirect Notification? _ Idle Appearance Preference? _
 PCOL/TEG Call Alerting? _ personalized Ringing: _
 Restrict Last Appearance? _
 Data Module? -

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: call-appr 6: _____
 2: call-appr 7: _____
 3: _____ 8: _____
 4: _____ 9: _____
 5: _____

SCREEN 6-153. 7410D Voice Terminal Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of 2

STATION

DATA MODULE

Data Extension: _____

BCC : 2

ITC: restricted

Name: _____

COR : _

COS: _

ABBREVIATED DIALING

List1: _____

HOT LINE DESTINATION

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext

Name

1:

SCREEN 6-154. 7410D Voice Data Module Form (Page 2)—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page 1 is "y."

The BCC field is only displayed when the ISDN-PRI options enabled on the System-Parameters Customer-Options form.

7403D Voice Terminal

Page 1 of 2

STATION

Extension: _____ BCC: 0

Type: 7403D Lock Messages: _ COR: _ Room: _____

Port: _____ security Code: _ COS: _ Jack: _____

Name: _____ coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? _

LWC Activation? _ Auto Answer? _ Data Restriction? _

Redirect Notification? _ Idle Appearance Preference? _

Bridged Call Alerting? _ Restrict Last Appearance? _

Data Module? _

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: _____ 6: _____

2: _____ 7: _____

3: _____ 8: _____

4: _____ 9: _____

5: _____ 10: _____

SCREEN 6-155. 7403D Voice Terminal Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of 2

STATION

DATA MODULE

Data Extension: ____
BCC: 2
ITC: restricted

Name: _____
COR: _
COS: _

ABBREVIATED DIALING

List1: _____

HOT LINE DESTINATION

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext Name

1:

SCREEN 6-156. 7403D Voice Terminal Data Module Form(Page 2)—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page 1 is "y."

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

7404D Voice Terminal

Page 1 of 3

STATION

Extension: _____ BCC: 0

Type: 7404D Lock Messages: _ COR: _ Room: _____
 Port: _____ Security Code: _____ COS: _ Jack : _____
 Name: _____ Coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? _
 LWC Activation? _ Auto Answer? _ Data Restriction? _
 Redirect Notification? _ Idle Appearance Preference? _
 Bridged Call Alerting? _ Personalized Ringing Pattern: _
 Restrict Last Appearance? _
 Data Module? _
 Display? _

ABBREVIATED DIALING

List1: _____ List2: _____ List3 : _____

BUTTON ASSIGNMENTS

1: _____ 4: _____
 2: _____ 5: _____
 3: _____ 6: _____

SCREEN 6-157. 7404D Voice Terminal Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of 3

STATION

DISPLAY BUTTON ASSIGNMENTS

1: normal

2: inspect

3: msg-retr

4: next

5: call-disp

6: delete-msg

7: _____

SCREEN 6-158. 7404D Voice Terminal Feature Button Assignments Form (Page 2)—Example Only**Implementation Notes:**

This page is only displayed if the Display field on Page 1 is "y." Buttons 1 through 7 relate to function buttons ([F1] through [F7]) on the associated data terminal.

For 7404D Voice Terminal equipped with an optional Messaging Cartridge, administer display buttons as shown on the form. Button 7 must be administered as "date-time."

For 7404D Voice Terminal equipped with an optional Messaging Cartridge with Integrated Directory, administer display buttons as shown on the form. Button 7 must be administered as "directory."

Page 3 of 3

STATION

DATA MODULE

Data Extension: _ BCC: 2 ITC: restricted
Name: _____ COR: _ COS: _

ABBREVIATED DIALING

List1: _____

HOT LINE DESTINATION

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext Name

1:

SCREEN 6-159. 7404D Voice Terminal Data Module Form (Page 3)—Example Only**Implementation Note:**

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

7405D Voice Terminal

Page 1 of x

STATION

Extension: _____ BCC : 0

Type: 7405D Lock Messages: _ COR: _ Room: _____

Port: _____ Security code: _ COS: _ Jack: _____

Name: _____ Coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? _

LWC Activation? _ Auto Answer? _ Data Restriction? _

Redirect Notification? _ Idle Appearance Preference? _

Bridged Call Alerting? _

Restrict Last Appearance? _

Feature Module? _

Coverage Module? _

Data Module? _

Display? _

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: _____	6: _____
2: _____	7: _____
3: _____	8: _____
4: _____	9: _____
5: _____	10: _____

SCREEN 6-160. 7405D Voice Terminal Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____	13: _____
2: _____	14: _____
3: _____	15: _____
4: _____	16: _____
5: _____	17: _____
6: _____	18: _____
7: _____	19: _____
8: _____	20: _____
9: _____	21: _____
10: _____	22: _____
11: _____	23: _____
12: _____	24: _____

SCREEN 6-161. 7405D Feature Button Assignments Form (Page 2)—Example Only

Implementation Note:

This form is used to assign features to the 24 administrable buttons on the 7405D voice terminal. Feature buttons to be assigned to the optional Function Key Module (administered using Feature Module form) or the Coverage Module, when used, must be assigned using their respective forms.

7405D Voice Terminal (Contd)

Page x of y

STATION

FEATURE	MODULE	BUTTON	ASSIGNMENTS
1:			13: _____
2:			14: _____
3:			15: _____
4:			16: _____
5:			17: _____
6:			18: _____
7:			19: _____
8:			20: _____
9:			21: _____
10:			22: _____
11:			23: _____
12:			24: _____

SCREEN 6-162. 7405D Feature Button Assignments Form—Example Only

Implementation Note:

This form is displayed if the “Feature Module” field on Page 1 is “y.”

Page x of y

STATION

COVERAGE	MODULE	BUTTON	ASSIGNMENTS
1:			11: _____
2:			12: _____
3:			13: _____
4:			14: _____
5:			15: _____
6:			16: _____
7:			17: _____
8:			18: _____
9:			19: _____
10:			20: _____

SCREEN 6-163. 7405D Coverage Module Button Assignments Form—Example Only

Implementation Note:

This form is displayed if the “Coverage Module” field on Page 1 is “y.”

Page x of y

STATION

DISPLAY BUTTON ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

SCREEN 6-164. 7405D Display Button Assignments Form—Example Only

Implementation Note

This page is displayed if the Display field on Page 1 is “y.” Assign display-type buttons as required.

Page x of y

STATION

DATA MODULE

Data Extension: _____	BCC: 2	ITC: restricted
Name: _____	COR: —	COS: _

ABBREVIATED DIALING

List1: _____

HOT LINE DESTINATION

Abbreviated Dialing Dial Code (From above list :_

ASSIGNED MEMBER (Station with a data extension button for this data module

Ext	Name
1:	

SCREEN 6-165. 7405D Data Module Form—Example Only**Implementation Note:**

This form is displayed if the Data Module field on Page1 is “y.”

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

7406D Voice Terminal

		Page 1 of 4	
STATION			
Extension: _	BCC : 0		
Type: <u>7406D</u>	Lock Messages: _	COR: _	Room: _____
Port: _____	Security Code: _____	COS: _	Jack: _____
Name: _____	Coverage Path: _	Cable: _____	
FEATURE OPTIONS			
LWC Reception? _____	Headset? _	coverage Msg Retrieval? _	
LWC Activation? _	Auto Answer? _	Data Restriction? _	
Redirect Notification? _		Idle Appearance Preference? _	
Bridged Call Alerting? _		personalized Ringing pattern: _	
		Restrict Last Appearance? _	
Data Module? _		Display Cartridge: _	
Display? _			
ABBREVIATED DIALING			
List1: _____	List2: _____	List3: _____	
BUTTON ASSIGNMENTS			
1: _____	4: _____		
2: _____	5: _____		
3: _____			

SCREEN 6-166. 7406D Voice Terminal Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

STATION		Page 2 of 4
FEATURE	BUTTON	ASSIGNMENTS
		2: _____
		3: _____
		4: _____
1: _____		12: _____
5: _____		13: _____
6: _____		14: _____
7: _____		15: _____
8: _____		16: _____
9: _____		17: _____
10: _____		18: _____
11: _____		

SCREEN 6-167. 7406D Feature Button Assignments Form (Page 2)—Example Only**Implementation Note:**

Buttons 12 through 18 are accessed by shifting buttons 5 through 11.

STATION		Page 3 of 4
DISPLAY BUTTON ASSIGNMENTS		
1:	_____	
2:	_____	
3:	_____	
4:	_____	
5:	_____	
6:	_____	
7:	_____	

SCREEN 6-168. 7406D Display Button Adssignments Form (Page 3)—Example Only

Implementation Note

This form is displayed when the Display Cartridge field on Page 1 is “y.” Administer display-type buttons as required.

Page 4 of 4

STATION

DATA MODULE
Data Extension: _____ BCC: 2 ITC: restricted
Name: _____ COR: _ COS: _

ABBREVIATED DIALING
List1: _____ List2: _____ List3: _____

HOT LINE DESTINATION
Abbreviated Dialing List Number (From above 1, 2 or 3): _
Dial Code: _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext	Name
1:	

SCREEN 6-169. 7406D Voice Terminal Data Module Form (Page 4)—Example Only

Implementation Note:

This page is displayed when the Data Module field on Page 1 is "y."

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

7407D Voice Terminal

Page 1 of 4

STATION

Extension: BCC: 0
 Type: 7407D Lock Messages: COR: Room:
 Port: Security Code: COS: Jack:
 Name: Coverage Path: Cable:

FEATURE OPTIONS

 LWC Reception? Headset? Coverage Msg Retrieval?
 LWC Activation? Auto Answer? Data Restriction?
 Redirect Notification? Idle Appearance Preference?
 Bridged Call Alerting? personalized Ringing pattern?
 Restrict Last Appearance?
 Data Module?
 Display?

ABBREVIATED DIALING

 List1: List2: List3:

BUTTON ASSIGNMENTS

 1: 6:
 2: 7:
 3: 8:
 4: 9:
 5: 10:

SCREEN 6-170. 7407D Voice Terminal Station Form—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

The first three Button Assignments fields may only be assigned as call-appr (call appearance).

Page 2 of 4

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____	2: _____
3: _____	14: _____
4: _____	15: _____
5: _____	16: _____
6: _____	17: _____
7: _____	18: _____
8: _____	19: _____
9: _____	20: _____
10: _____	21: _____
11: _____	22: _____
12: _____	23: _____
13: _____	24: _____

SCREEN 6-171. 7407D Voice Feature Button Assignments Form—Example Only

Page 3 of 4

STATION

DISPLAY BUTTON ASSIGNMENTS

1: _____
2: _____
3: _____
4: _____
5: _____
6: _____
7: _____

SCREEN 6-172. 7407D Display Button Assignments Form—Example Only**Implementation Note:**

Administer display-type buttons as required.

Page 4 of 4

STATION

DATA MODULE

Data Extension: _____ BCC: 2 ITC: restricted

Name: _____ COR: _ COS: _

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

HOT LINE DESTINATION

Abbreviated Dialing List Number (From above 1, 2 or 3): _

Dial Code: _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext Name

1:

SCREEN 6-173. 7407D Voice Terminal Data Module Form—Example Only**Implementation Note:**

This page is displayed if the Data Module field on Page 1 is "y."

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

7434D Voice Terminal

Page 1 of x

STATION

Extension: _____ BCC: 0

Type: _____ Lock Messages: _____ COR: _____ Room: _____

Port: _____ Security Code: _____ COS: _____ Jack: _____

Name: _____ Coverage Path: _____ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _____ Coverage Msg Retrieval? _____

LWC Activation? _____ Auto Answer? _____ Data Restriction? _____

Redirect Notification? _____ Idle Appearance Preference? _____

Bridged Call Alerting? _____ Personalized Ringing Pattern: _____

Restrict Last Appearance? _____

Data Module? _____

Display? _____ Coverage Module? _____

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: _____ 6: _____

2: _____ 7: _____

3: _____ 8: _____

4: _____ 9: _____

5: _____ 10: _____

SCREEN 6-174. 7434D Voice Terminal Station Form—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of x

STATION

BUTTON ASSIGNMENTS

11: _____

12: _____

13: _____

14: _____

15: _____

16: _____

17: _____

18: _____

19: _____

20: _____

21: _____

22: _____

23: _____

24: _____

25: _____

26: _____

27: _____

28: _____

29: _____

30: _____

31: _____

32: _____

33: _____

34: _____

SCREEN 6-175. 7434D Button Assignments Form—Example Only

Implementation Note:

This form is used to assign features to the 24 administrable buttons on the 7434D voice terminal (may include call appearance and bridged call appearance buttons). Feature buttons to be assigned to the optional Coverage Module, when used, must be assigned on its respective form (see next page).

Page x of x

STATION

COVERAGE MODULE BUTTON ASSIGNMENTS

2: _____	11: _____
3: _____	12: _____
4: _____	13: _____
5: _____	14: _____
6: _____	15: _____
7: _____	16: _____
8: _____	17: _____
9: _____	18: _____
10: _____	19: _____
	20: _____

SCREEN 6-176. 7434D Coverage Module Form—Example Only**Implementation Note**

Only displayed if the Coverage Module field on Page 1 is "y."

STATION

Page x of x

DISPLAY

BUTTON

ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

SCREEN 6-177. 7434D Display Button Assignments Form—Example Only

Implementation Note

Only displayed if the Display field on Page 1 is “y.” Button locations (1 through 7) are associated with buttons 1 through 7 on the optional Digital Display Module.

		Page x of x	
STATION			
DATA MODULE			
Data Extension: _____	BCC: 2	ITC: <u>restricted</u>	
Name: _____	COR: _	COS: _	
ABBREVIATED DIALING			
List1: _____			
HOT LINE DESTINATION			
Abbreviated Dialing Dial Code (From above list): _			
ASSIGNED MEMBER (Station with a data extension button for this data module)			
Ext	Name		
1:			

SCREEN 6-178. 7434D Data Module Form—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page 1 is "y."

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Callmaster™ Digital Voice Terminal

Page 1 of 4

STATION

Extension: _ BCC:0
 Type: 602A1 Lock Messages: _ COR: _ Room: _____
 Port: _____ Security Code: _ COS: _ Jack: _____
 Name: _____ coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? _
 Lwc Activation? _ Auto Answer? _ Data Restriction? _
 Redirect Notification? _ Idle Appearance Preference? _
 Bridged Call Alerting? _ Personalized Ringing pattern: _
 Restrict Last Appearance? _

Data Module? _
 Display? _

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: _____	6: _____
2: _____	7: _____
3: _____	8: _____
4: _____	9: _____
5: _____	10: _____

SCREEN 6-179. Callmaster Station Form—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

At least two BUTTON ASSIGNMENTS fields must be assigned as call-appr (call appearance.)

Page 2 of 4

STATION

FEATURE BUTTON ASSIGNMENTS

1st column	2nd Column
1: _____	7: _____
2: _____	8: _____
3: _____	9: _____
4: _____	10: _____
5: _____	11: _____
6: mute	12: _____

3rd Column

13: _____
14: _____
15: _____
16: _____
17: _____
18: _____

SCREEN 6-180. Callmaster Feature Button Assignments Form—Example Only

Page 3 of 4

STATION

DISPLAY BUTTON ASSIGNMENTS

1: _____
2: _____
3: _____
4: _____
5: _____
6: _____
7: _____

SCREEN 6-181. Callmaster Display Button Assignments Form—Example Only

Implementation Note:

This Display Button Assignments form is displayed, but no administration is required.

Page 4 of 4

STATION

DATA MODULE

Data Extension: _____ BCC: 2 ITC: restricted

Name: _____ COR: _ COS: _

ABBREVIATED DIALING

List1: _____

HOT LINE DESTINATION

Abbreviated Dialing Dial Code (From above list): _

ASSIGNED MEMBER (Station with a data extension button for this data module)

Ext Name

1:

SCREEN 6-182. Callmaster Data Module Form—Example Only**Implementation Note:**

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Personal Computer (6300/7300) PC/PBX Connection

Page 1 of 4

STATION

Extension: _____ BCC: 0

Type: PC Set: _____ Lock Messages: _ COR: _ Room: _____

Port: _____ Security Code: _____ COS: _ Jack: _____

Name: _____ Coverage Path: _ Cable: _____

FEATURE OPTIONS

LWC Reception? _____ Headset? _ Coverage Msg Retrieval? _

LWC Activation? _ Auto Answer? _ Data Restriction? _

Redirect Notification? _ Idle Appearance Preference? _

PCOL/TEG Call Alerting? _ Restrict Last Appearance? y

Data Module? _

Display? _

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: _____	6: _____
2: _____	7: _____
3: _____	8: _____
4: _____	9: _____
5: _____	10: _____

SCREEN 6-183. PC 6300/7300 Station Form—Example Only

Implementation Note:

The BCC field is only displayed when the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

Page 2 of 4

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____

2: _____

3: _____

4: _____

5: _____

6: _____

7: _____

8: _____

9: _____

10: _____

11: _____

12: _____

13: _____

14: _____

15: _____

16: _____

17: _____

18: _____

19: _____

20: _____

21: _____

22: _____

23: _____

24: _____

SCREEN 6-184. PC 6300/7300 Feature Button Assignment Form—Example Only

6-394

		Page 3 of 4
STATION		
DISPLAY	BUTTON	ASSIGNMENTS
1:	_____	
2:	_____	
3:	_____	
4:	_____	
5:	_____	
6:	_____	
7:	_____	

SCREEN 6-185. PC 6300/7300 Display Button Assignment Form—Example Only

7505D, 7506D, 7507D, and 8503T Voice Terminals

Purpose

This form is used to implement the 7505D, 7506D, 7507D, and 8503T ISDN Basic Rate Interface voice terminals.

Administration Commands

The following administration commands can be used to access the Voice Terminal forms. In some cases, just the most commonly used commands are shown. Refer to Administration Commands and Error Messages (Chapter 3) for a complete listing of all administration commands, the command structure, and the use of abbreviated command words when entering a command.

Action	Object	Qualifier*
add	station	xxxxx (extension number) or ('next')
change	station	xxxxx (extension number)
display	station	xxxx (extension number) ['print']
duplicate	station	xxxxx (extension number) ['count' 1-16] ['start' extension] ['Board' address] ['one-ep']
list	station	[xxxxx] ['count' 1-1600] ['type' station type] ['port' port number] ['print' or 'schedule']
list	station	[xxxxx] ('count' 1-1800) port ['print' or 'schedule']
remove	station	xxxxx (extension number)

- * Brackets [] indicate the qualifier is optional.
Single quotes (' ') indicate the text inside the quote must be entered exactly as shown or an abbreviated form of the word maybe entered.

Form Instructions

Please review the "Voice Terminals—General" information at least once before completing the form. General information including feature button descriptions and characteristics are covered. In addition, descriptions of the administrable fields appearing on Pages 1 and 2 of the form are provided. Instructions are provided below for fields and/or pages of the form that require additional consideration because of the terminal type.

Page 1 of the Form

Note: The "Data Module?" field is only displayed for the 7505D, 7506D, and 7507D BRI voice terminals. This field does not appear for the 8503T BRI voice terminal.

- **Type**— Enter "7505D," "7506D," "7507D," or "8503T," as appropriate.
- **Port**— Enter 5 to 6 characters. The first character identifies the network (1 through 3, default is "1" if no entry); the second character identifies the carrier (A through E); the third and fourth characters identify the slot number in the carrier (01 through 20 for multi-carrier cabinets or 01 through 18 for single-carrier cabinets); the last two characters identify the circuit number (01 through 04). BRI provides multipoint configuration capability which allows a previously assigned port to be specified more than once. However, for the following cases, the port will be assumed to be fully assigned:

- Maximum number of endpoints (currently two) is assigned on the port.

Note: Maximum number of endpoints can be any of the following: two voice-only, two stand-alone data, or one voice-only and one stand-alone data.

- One of the endpoints on the port is a fixed TEI station.
- One of the endpoints on the port has B-channel voice and B-channel data capability.
- One of the endpoints on the port has no SPID assigned, that includes terminals which have no SPID initialization capability.

Note: A 1-character entry of "X" in the Port field **may not be** used for BRI to indicate that there is no hardware associated with the port assignment (that is, Administration Without Hardware feature). The Administration Without Hardware feature does not support BRI-type endpoints.

- **XID**— Used to identify layer 2 XID testing capability. Valid entries are "y" or "n". Default is "y."
- **Fixed TEI**— Used to indicate whether or not the station has TEI capability. TEI is used to identify a unique access point within a service. For Fixed TEI stations, the TEI must be administered. For terminals with automatic TEI capability, the associated TEI is assigned by the System. Valid entries are "y" or "n". Default is "n."
- **TEI**— Only displayed if the Fixed TEI field entry is "y." Enter a 1- to 2-digit number in the range of 0 through 63.
- **MIM Support**— Management Information Message Support) Used to support two types of capabilities; MIM endpoint initialization capability (SPID support), other Maintenance/Management capability. Valid entries are "y" or "n." Default is "y."
- **Endpoint Initialization**— only displayed if the MIM Support field entry is "y." Used to indicate the station's endpoint initialization capability. Endpoint initialization is a procedure, required for multipoint operation, by which USOP is associated with an endpoint on the BRI. This association is made via the SPID, administered into the system and entered into the BRI terminal. For a BRI terminal to become operational in a multipoint configuration, both the administered SPID and the SPID programmed into the BRI terminal must be the same. This means that the SPID of the new or re-used terminals must be programmed to match the administered SPID value. For information on SPID installation, refer to "Appendix A." Valid entries are "y" or "n". Default is "y."
- **SPID**— Only displayed if the Endpoint Initialization field entry is "y." The Service Profile Identifier (SPID) is a variable parameter of up to 10 digits. The SPID is a numeric string value, which means that a value of "00" is different from "000." The SPID must be different for all terminals on the BRI and from the Service SPID. The SPID should always be assigned, if the SPID is not assigned for the first BRI on a port, any other BRI assignment to that port will be blocked. Valid entries are numeric strings in the range of 0 through 9999999999. Default is the station's extension number.

- **MIM Mtce/Mgt**— Only displayed if the MIM Support field entry is “y.” Used to indicate if the terminal supports MIM Maintenance and Management capabilities, other than endpoint initialization. Valid entries are “y” or “n”. Default is “y.”

Page 2 of the Form

- **BUTTON ASSIGNMENTS**

The feature buttons that can be assigned to the 7505D, 7506D, 7507D, and 8503T voice terminals are listed below. Associated descriptions and characteristics of the buttons are provided in the “Voice Terminals—General” section. The abbreviated software name (that is, administration name) as shown on the following list must be entered on the form. Depending on the button type, additional auxiliary information may be required when administering buttons. This information is provided in the “Voice Terminals—General” section.

- abr-prog
- abr-spchar
- abrdg-appr
- abrv-dial
- ac-alarm
- aca-call
- after-call
- assist
- atd-qcalls *
- atd-qtime *
- aut-msg-wt
- auto-cback
- auto-icom
- auto-in
- auto-wkup * †
- aux-work
- brdg-appr
- busy-ind
- call-appr
- call-disp * †
- call-fwd
- call-park
- call-pkup
- callr-info * †
- cas-backup
- check-in * †
- check-out * †
- clk-overid * †
- consult
- cov-cback
- cov-msg-rt * †
- date-time * †
- delete-msg * †
- dial-icom
- directory * †
- dn-dst
- ds1-alarm
- exclusion
- ext-dn-dst * †
- flash
- goto-cover
- grp-dn-dst * †
- hunt-ns
- in-call-id
- inspect * †
- last-numb
- link-alarm
- lsvn-call *
- lwc-cancel
- lwc-store
- major-arm
- man-msg-wt
- man-overid * †
- manual-in
- mj/mn arm
- msg-retr * †
- mwn-act * †
- mwn-deact * †
- next * †
- night-ser
- normal * †
- per-COline
- pms-alarm
- pr-awu-alm
- pr-pms-alm
- pr-sys-alm
- print-msgs
- priority
- q-calls
- q-time
- release
- ringer-off
- rs-alert
- rsvn-call *
- send-calls
- send-term
- serv-obsrv
- signal
- smdr1-arm
- smdr2-arm
- stored-num * †
- stroke-cnt
- term-x-gr
- timer * †
- trk-ac-alm †
- trunk-name * †
- trunk-ns
- verify
- work-code

* Display-type Button

† Not administrable on 7505D or 8503T

Figures showing the 7505D, 7506D, 7507D, and 8503T voice terminal button number assignments in relation to the button numbers on the voice terminal form are located at the end of this section dealing with the 7500/8500 BRI voice terminals. The first three buttons are defaulted as call appearance.

Page 3 of the Form

- **Feature Button Assignments**

The features and functions that can be assigned to the 7505D, 7506D, 7507D, and 8503T voice terminal administrable buttons are the same as those listed for BUTTON ASSIGNMENTS above.

Figures showing the 7505D, 7506D, 7507D, and 8503T voice terminal button number assignments in relation to the button numbers on the voice terminal form are located at the end of this section dealing with the 7500/8500 BRI voice terminals.

Page x of the Form (Data Module)

Applicable only to 7505D, 7506D, and 7507D Voice Terminals

- Only displayed if the Data Module field on Page 1 is “y.” Instructions are provided below for fields that require additional consideration because of the terminal type. Otherwise refer to “Station Forms—Field Descriptions” salon in this chapter for associated field descriptions.

- **Circuit Switched Data Attributes**

Note: These fields represent defaults needed for modem pooling conversion resource insertion when the endpoint does not support data query capability. These fields have no significance for data modules providing data query [all AT&T-supported Basic Rate Interface data modules (7500B and ADM)]. For AT&T BRI data modules, the default settings should be used.

Applicable only to 7505D, 7506D, and 7507D Voice Terminals

- **Default Duplex—** Used to identify the duplex mode. Valid entries are “full” or “half.” Default is “full.”
- **Default Mode—** Used to identify the data mode. Valid entries are “sync” (synchronous) or “async” (asynchronous). Default is “asyn.”
- **Default Speed—** Used to identify the data rate. Valid entries are “1200,” “2400,” “4800,” and “19200.” Default is “1200.”

Note: When default mode is “sync,” valid entries also include speeds of “56000” and “64000.”

• Data Module Capabilities

Applicable only to 7505D, 7506D, and 7507D Voice Terminals

- **Default ITC**— Used to identify the Information Transfer Capability (restricted or unrestricted) when the ITC is not specified with the calling parameters (for example, when a BRI data module is the originator of an administered connection). Allowed values are restricted and unrestricted. Default is restricted.
- **Default Data Applications**— Used to identify mode to be used for originating data calls when the mode is not specified with the calling parameters. This mode will also be used for terminating trunk calls which do not have bearer capability specified or administered connections. Possible mode values are M0 (mode 0), M1 (mode 1), M12 (mode 2), and M3/2 (mode 3/2 adaptable), or blank. Valid entries are "M0," "M1," "M2_A," "M2_S," or "M3/2." Default is "M2_A"

Page 1 of x

STATION

Extension: _____	BCC: 0	
Type: _____	Lock Messages: <u>n</u>	COR : <u>1</u>
Port: _____	Security Code: _____	COS : <u>1</u>
Name: _____	Coverage Path: _	

FEATURE OPTIONS		
LWC Reception? <u>msa-spe</u>	Coverage Msg Retrieval? <u>y</u>	
LWC Activation? <u>y</u>	Auto Answer? <u>n</u>	
SMDR Privacy? <u>n</u>	Data Restriction? <u>n</u>	
Redirect Notification? <u>y</u>	Idle Appearance' Preference? <u>n</u>	
Bridged Call Alerting? <u>n</u>	Restrict Last Appearance? <u>y</u>	
Data Module? <u>n</u>		
XID? <u>y</u>	Fixed TEI? <u>n</u>	TEI: _
MIM Support? <u>y</u>	Endpt Init? <u>y</u>	SPID: <u>300</u> MIM Mtce/Mgt? <u>y</u>

SCREEN 6-186. 7505D, 7506D, 7507D, and 8503T* Station Form (Page 1)—Example Only

Implementation Note:

The BCC field is only displayed if the ISDN-PRI option is enabled on the System-Parameters Customer-Options form.

* The Data Module field is not displayed for the 8503T voice terminal.

When adding an unsupported station using the Enhanced Terminal Administration feature, if the Freed TEI field is set to "y," the TEI field will be displayed.

The Endpt Init and MIM Mtce/Mgt fields are only displayed if the MIM Support field entry is "y."

The SPID field is only displayed if the Endpt Init field entry is "y."

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? n

ABBREVIATED DIALING

List1: _____ List2: _____ List3: _____

BUTTON ASSIGNMENTS

1: <u>call-appr</u>	6: _____
2: <u>call-appr</u>	7: _____
3: <u>call-appr</u>	8: _____
4: _____	9: _____
_____	10: _____

SCREEN 6-187. 7505D, 7506D, and 7507D Station Form (Page 2)—Example Only

Implementation Note:

For a 7505D or 7506D voice terminal, button 7 can be administered as a call appearance button if an ADM is not attached to the station. When an ADM is attached, the button acts as a DATA button regardless of whether or not the data module has been administered. If the ADM has been administered, "DATA" will be displayed in the field and access to the field will also be restricted. If the station is aliased as a 7505D or 7505D via the Enhanced Terminal Administration feature, button 7 can be administered as a call appearance button whether or not an ADM is assigned. Button 7 is never used as a DATA button on the 7507D voice terminal. The 7507D voice terminal uses button 31 as a DATA button if an ADM is attached.

Page 2 of x

STATION

NON-SWITCH DATA

Room: _____

Jack: _____

Cable: _____

Headset? ☐

ABBREVIATED DIALING

List1: _____ List2: _____ List3 : _____

BUTTON ASSIGNMENTS

1: call-appr

2: call-appr

3: call-appr

SCREEN 6-188. 8503T Station Form (Page 2)—Example Only

Page 3 of x

STATION

FEATURE BUTTON ASSIGNMENTS

1: _____	4: _____
2: _____	5: _____
3: _____	6: _____
	7: _____

SCREEN 6-189. 7505D and 7506D station Form (Page 3)—Example Only

Page 3 of x

STATION

BUTTON ASSIGNMENTS

11: _____

12: _____

13: _____

14: _____

15: _____

16: _____

17: _____

18: _____

19: _____

31: _____

32: _____

33: _____

34: _____

35: _____

36: _____

20: _____

21: _____

22: _____

23: _____

24: _____

25: _____

26: _____

27: _____

28: _____

29: _____

37: _____

38: _____

39: _____

40: _____

SCREEN 6-190. 7507D Station Form (Page 3)—Example Only

Implementation Note:

Button 31 can be administered as a feature button if an ADM is not attached to the station. When an ADM is attached, the button sots as a DATA button regardless of whether the data module has been administered. If the ADM has been administer, "DATA" will be displayed in the field and the button will be restricted. If the station is aliased as a 7507D via the Enhanced Terminal Administration feature, button 31 can be administered as a feature button whether or not an ADM is assigned.

Page x of x

STATION

DATA MODULE
 Data Extension: _____
 Name: _____ COR: 1 COS: 1

ABBREVIATED DIALING
 List1: _____

SPECIAL DIALING OPTION: hot-line
 HOT LINE DESTINATION
 Abbreviated Dialing Dial Code (From above list): _

CIRCUIT SWITCHED DATA ATTRIBUTES
 Default Duplex: full Default Mode: async Default Speed: 1200

DATA MODULE CAPABILITIES
 Default ITC: restricted Default Data Application? M2 A

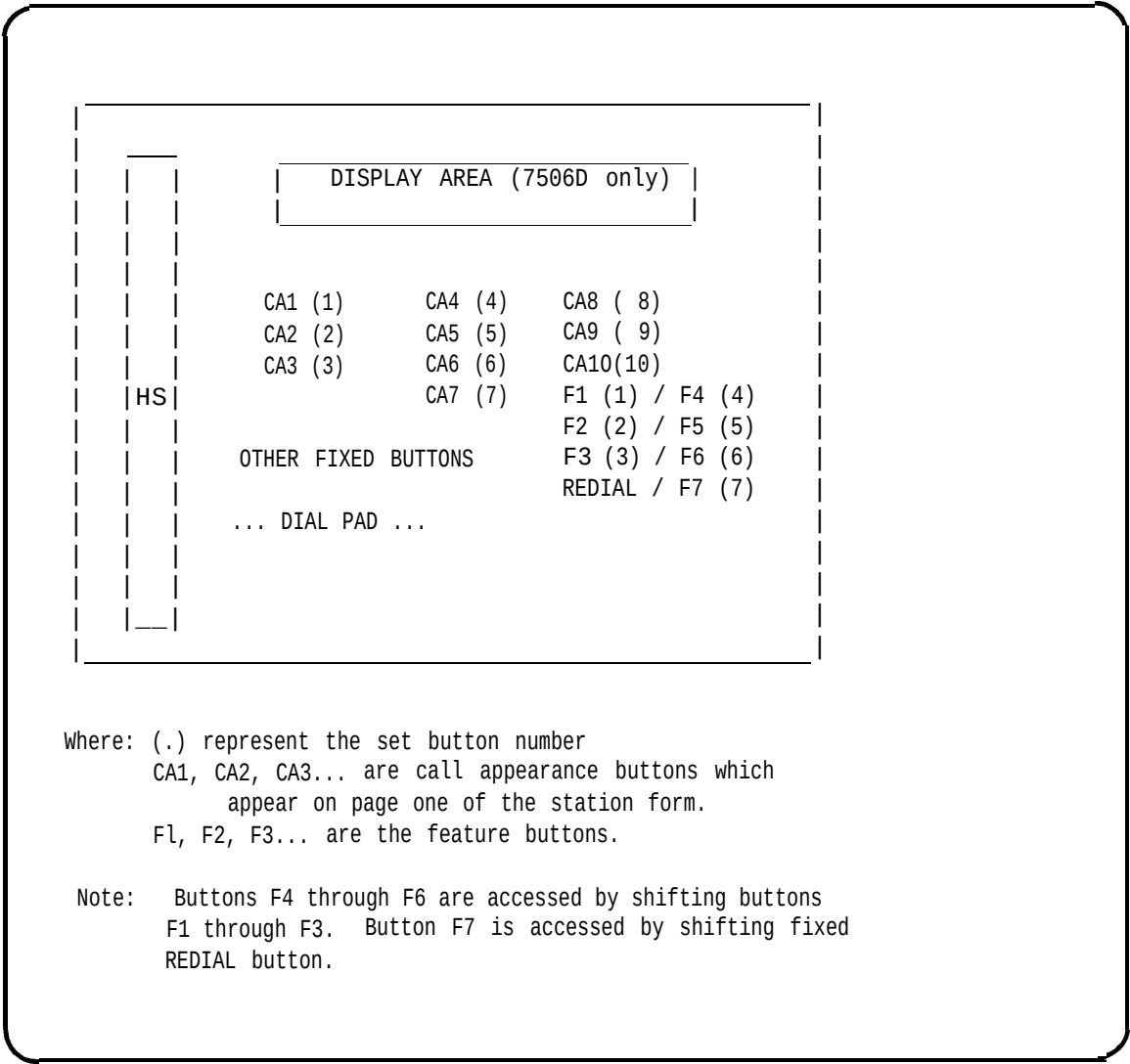
SCREEN 6-191. 7505D, 7506D, and 7507D BRI Data Module Form—Example Only**Implementation Note:**

This page is only displayed if the Data Module field on Page 1 is "y."

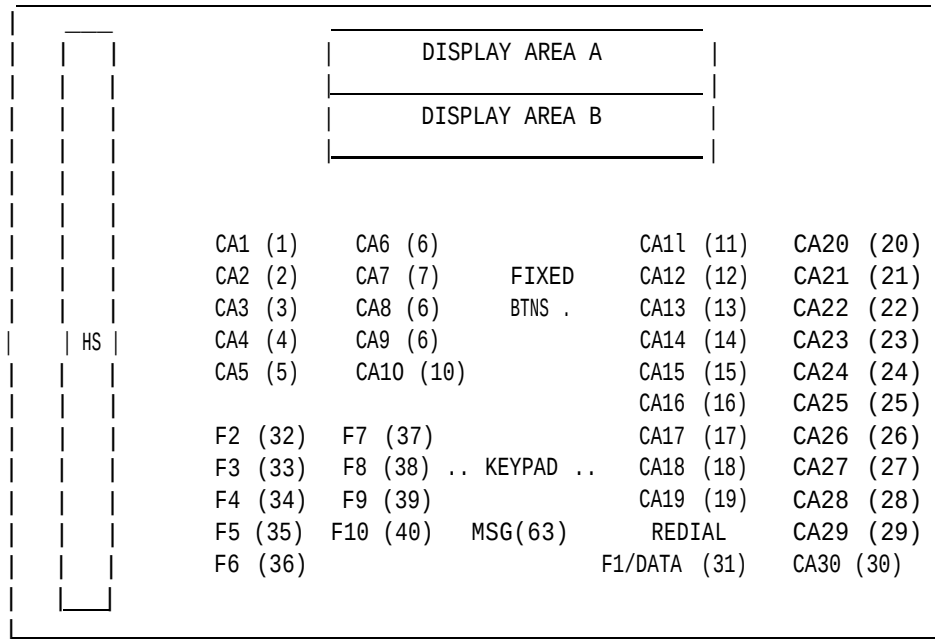
HOTLINE DESTINATION only displayed when "hot-line" is entered in the SPECIAL DIALING OPTION field.

DEFAULT DIALING only displayed when "default" is entered in the SPECIAL DIALING OPTION field.

Abbreviated Dialing Dial Code only displayed when SPECIAL DIALING OPTION is "hot-line" or "default."



SCREEN 6-192. 7505D and 7506D Voice Terminal Feature Button Layout



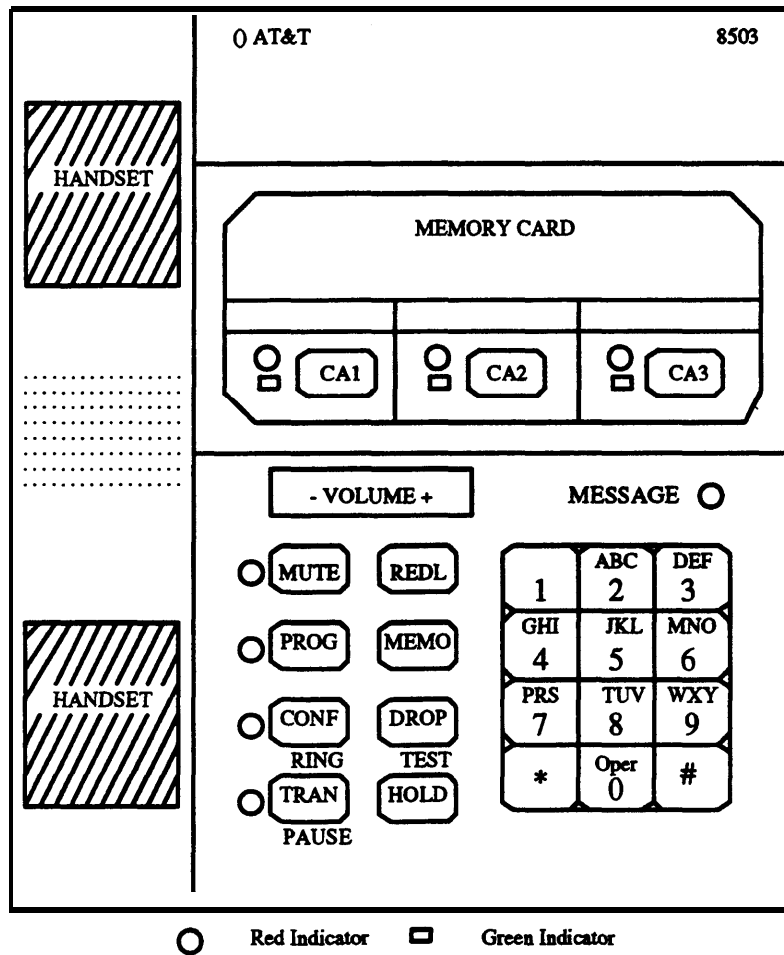
Where: (.) represent the set button number

CA1, CA2, ..., CA30 are call appearance buttons (2 lamp buttons)

F1, F2, F3... are the feature buttons (one LED).

Note: The 7507D terminal supports 31 buttons with two LEDs, however, the software will only support administration of 30 of these as call appearance buttons (buttons CA1-CA30). The system maximum of 10 call appearance buttons still applies. Buttons CA1-CA30 which are not used as Call Appearance buttons can be administered as Bridged Appearance buttons.

SCREEN 6-193. 7507D Voice Terminal Feature Button Layout



Note: CA1, CA2, CA3 are call appearance buttons (2 lamp buttons)
 FIXED BTNS with 1 LED: PROG, MUTE, CONF, TRANS
 FIXED BTNS with no LED: REDIAL, DROP, HOLD, MEMORY

FIGURE 6-41. 8503T Voice Terminal Feature Button Layout

CHAPTER 7. REFERENCES

CHAPTER 7. REFERENCES

The following is an abbreviated listing of Generic 1 and System 75 documents. Included is a brief description of each document in the list. User instructions are also available for all terminals used with the systems.

To order copies of any of these documents, refer to the address on the back of the title page.

Business Communications Systems Publications Catalog **555-000-010**

Provides a list of publications that support AT&T business communications systems. Also provides a brief description of each publication listed.

**DEFINITY® Communications System and System 75 and System 85—
Terminals and Adjuncts—Installation and Test** **555-015-104**

Provides procedures for installing and removing voice terminals (including Business Communications Terminal built-in voice terminals) and adding modules and adjuncts to voice terminals. Also shows how to provide auxiliary power for voice terminals and associated modules and adjuncts. Provides references to other documents that contain step-by-step instructions for making cross-connections.

**DEFINITY® Communications System and System 75 and System 85—
Terminals and Adjuncts—Reference** **555-015-201**

Provides concise physical and functional descriptions of the peripheral equipment that can be used with DEFINITY Generic 3, DEFINITY Generic 2, System 75, and System 85. It is intended as an aid for both AT&T and customer personnel in selecting appropriate components for these systems and in training and management.

**DEFINITY® Communications System and System 75 and System 85—
DS1/DNI/ISDN-PRI—Reference** **555-025-101**

Provides a broad but detailed description of the DS1 Tie Trunk Service, DNI, and ISDN-PRI features. Introduces and defines concepts and terminology unique to DS1, DNI, and ISDN-PRI. Also includes applications, engineering procedures and considerations, cabling and connection arrangements, administration requirements, restrictions and limitations, etc.

An Introduction to DEFINITY® Communications System Generic 3 **555-230-020**

Provides an overview of DEFINITY Generic 3. Major hardware components, such as the switch, terminals, and software applications, are described to provide an understanding of the system's functional areas. Also provides an overview of System Management and data features and functions available with DEFINITY Generic 3.

Introduction to DEFINITY® Communications System Hospitality services **555-230-021**

Provides an overview of DEFINITY Generic 3 Hospitality Services. Major hardware components, such as the system cabinet and terminals, are described to provide an understanding of the system's functional areas. Also provides an overview of the hospitality features available with the system, as well as other voice, data, and System Management features.

DEFINITY® Communications System Generic 1 and Generic 3i—Feature Description **555-230-201**

Provides a technical description of the system features and parameters. For each feature, the following information is provided:

- Limitations/considerations
- Feature interactions
- Administration requirements
- Hardware and software requirements

DEFINITY® Communications System Generic 3—Pocket Reference **555-230-202**

Provides the reader with a quick, pocket-sized reference to the benefits, requirements, limitations, parameters, features, and circuit packs associated with the system.

DEFINITY® Communications System Generic 1 and Generic 3—Planning and Configuration **555-230-600**

Provides information be used by the Account Team to determine the customer% requirements and to collect the information needed to estimate system hardware requirements.

DEFINITY® Communications System Generic 1 and Generic 3—Console Operations **555-200-700**

Provides “how-to-operate” instructions for the attendant console. Serves as a reference when defining the console control keys and Incoming Call Identification requirements.

DEFINITY® Communications System Generic 1 and Generic 3—Voice Terminal Operations **555-230-701**

Describes all the voice features and provides the “how-to-operate” instructions for each voice terminal. Serves as a training guide for system users.

DEFINITY® Communications System Generic 1 and Generic 3—Automatic Call Distribution—Agent Instructions **555-230-722**

Provides information for use by agents after training is completed. The various ACD features are described and the procedures for using them are provided in this document.

DEFINITY® Communications System Generic 1 and Generic 3— 555-230-723
User's Guide—Hospitality Operations

Contains procedures for using the Hospitality Services of DEFINITY Generic 1 and Generic 3. These services include a group of system-based features that support the lodging and health industries.

DEFINITY® Communications System Generic 1 and Generic 3— 555-230-734
Automatic Call Distribution—Supervisor Instructions

Provides information for use by supervisors after training is completed. The various ACD features are described and the procedures for using them are provided in this document.

DEFINITY® Communications System Generic 1 and Generic 3i— 555-230-104
installation and Test

Provides the information necessary to perform the tasks of installing and testing the system's common equipment. Includes a description of the necessary tools and equipment.

DEFINITY® Communications System Generic 1 and Generic 3i— 555-204-105
Maintenance

Provides the information necessary for monitoring, testing, and maintaining DEFINITY Generic 1 and Generic 3i. It is intended to cover many of the faults and troubles that can occur in the system.

DEFINITY® Communications System Generic 1 and Generic 3i— 555-204-106
Upgrades and Additions

Provides procedures and information required to upgrade a DEFINITY G1.1 to a DEFINITY Generic 3i system and make additions to an operational system, after the initial switch installation.

DEFINITY® Communications System Generic 1 and Generic 3i— 555-204-111
Wiring

Provides an overview of the DEFINITY Generic 1 and Generic 3i wiring plan.

DEFINITY® Communications System Generic 1 and Generic 3i— 555-230-200
System Description

Provides a technical description of the system and its hardware, environmental and space requirements, and parameters. Also provides a brief description of features and services.

INTERNATIONAL DEFINITY® Communications System Generic 1— 555-204-440
Supplemental Information

Provides information on enhancements to the DEFINITY Communications System Generic 1 for international applications.

DEFINITY® Communications System Generic-Capabilities **555-230-499**

Provides a description of the new capabilities, features, and enhancements available on DEFINITY Generic 3 systems that were not available on DEFINITY Generic 1.1 systems.

DEFINITY® Communications System Generic 3i-Implementation **555-230-650/650B**

Provides the procedures and associated forms for collecting system and terminal software information for G3i systems. Also describes various administration commands and error messages. This information is used to initialize the system using the System Access Terminal.

DEFINITY® Communications System Generic 1 and Generic 3-Basic Call Management System Operations **555-230-703**

Describes all the features and provides the “how-to-operate” instructions for the Basic Call Management System (BCMS) feature.

DEFINITY® Communications System Generic 1 and System 75-Application Notes—Automatic Call Distribution **555-209-013**

Describes in detail the ACD feature of System 75 R1V3 and DEFINITY Generic 1 systems. Also described are the associated “embedded” features (such as Intraflow/Interflow, Queue Status Indications, Agent Call Handling, etc.) required for efficient operation and use of the ACD feature.

DEFINITY® Communications System Generic 1 and System 75-Application Notes—7400B Data Module **555-209-017**

Provides guidelines for administering the 7400B Data Module in DEFINITY® Communications System Generic 1.2.

DEFINITY® Communications System Generic 1 and Generic 3—System Management **555-230-500**

Describes G3 terminal types, function keys, and other G3 terminal operations. Also describes various administrative tasks such as logon and logoff, changing of password, remote administration, etc.

DEFINITY® Communications System Generic 1 and Generic 3i-System Reports **555-204-510**

Explains switch-based measurement, traffic, performance, and summary reports. Descriptions include the overall purpose and uses for each report, complete definitions for each field, correlations with other reports, and possible actions that can be taken to further diagnose situations and remedy unsatisfactory conditions.

**AT&T ISDN Gateway Release 1 Version 2
Planning and Application Development****585-245-201**

Provides a description of the AT&T ISDN Gateway and information on how to plan for it. It also contains information on ISDN Gateway interfaces that can be used for software application development.

CHAPTER 8. ABBREVIATIONS AND ACRONYMS

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AAR	Automatic Alternate Routing
AC	Alternating Current
ACA	Automatic Circuit Assurance
ACD	Automatic Call Distribution
ACU	Automatic Call Unit
ACW	After Call Work
AD	Abbreviated Dialing
ADU	Asynchronous Data Unit
AE	Access Endpoint
AIM	Asynchronous Interface Module
ALM-ACK	Alarm Acknowledge
AMW	Automatic Message Waiting
AN	Analog
ANI	Automatic Number Identification
AP	Applications Processor
APLT	Advanced Private Line Termination
ARS	Automatic Route Selection
ASAI	Adjunct Switch Applications Interface
ASCII	American Standard Code for Information Interchange
ATB	All Trunks Busy
ATD	Attention Dial
AUDIX	Audio Information Exchange
AVD	Alternate Voice Data
AWT	Average Work Time
BCC	Bearer Capability Class
BCMS	Basic Call Management System
BCT	Business Communications Terminal
BHCC	Busy Hour Calls Completions
BLF	Busy Lamp field
BOS	Bit Oriented Signaling
BRI	Basic Rate Interface
BTU	British Thermal Unit
CACR	Cancellation of Authorization Code Request
CAG	Coverage Answer Group
CAMA	Centralized Automatic Message Accounting
CARR-POW	Carrier Port and Power Unit for AC Powered systems
CAS	Centralized Attendant Service
CA-TSC	Call Associated Temporary Signaling Connection
CBC	Call-by-Call
CC	Country Code
CCIS	Common Channel Interoffice Signaling
CCITT	Consultative Committee for International Telephone and Telegraph
CCMS	Common Channel Message Set
CCS	Hundred Call Seconds
CCSA	Common Control Switching Arrangement

CDM	Channel Division Multiplexing
CDOS	Customer-Dialed and Operator Serviced
CDRR	Call Detail Recording and Reporting
CDRU	Call Detail Recording Utility
CEM	Channel Expansion Multiplex
CI	Clock Input
CMDR	Centralized Message Detail Recorder
CMS	Call Management System
CO	Central Office
COR	Class of Restriction
COS	Class of Service
CP	Circuit Pack
CPE	Customer Provided Equipment
CPN/BN	Calling Party Number/Billing Number
CPTR	Call Progress Tone Receiver
CRC	Cyclical Redundancy Checking
CSA	Canadian Safety Association
CSD	Customer Service Document
CSM	Centralized System Management
CSU	Channel Service Unit
CTS	Clear to Send
CWC	Call Work Codes
DAC	Direct Agent Calling
DC	Direct Current
DCE	Data Communications Equipment
DCP	Digital Communications Protocol
DCS	Distributed Communications System
DDC	Direct Department Calling
DDD	Direct Distance Dialed
DID	Direct Inward Dialed
DLC	Data Line Circuit
DLDM	Data Line Data Module
DMI	Digital Multiplexed Interface
DND	Do Not Disturb
DNIS	Dialed Number Identification Service
DOD	Direct Outward Dialed
DOSS	Delivery Operations Support System
DOT	Duplication Option Terminal
DS1	Data Services Level 1
DSI	Digital Service Interface
DSU	Data Service Unit
DTDM	Digital Terminal Data Module
DTE	Data Terminal Equipment
DTGS	Direct Trunk Group Select
DTMF	Dual Tone Multifrequency
DXS	Direct Extension Selection
E&M	Ear and Mouth (Receive and Transmit)
EBCDIC	Extended Binary Coded Decimal Interchange Code

ECC	Error Correct Code
EI	Expansion Interface
EIA	Electronic Industries Association
EMI	Electro-Magnetic Interference
EPN	Expansion Port Network
EPROM	Erasable Programmable Read Only Memory
EPSCS	Enhanced Private Switched Communications Services
ESF	Extended Superframe Format
ETN	Electronic Tandem Network
FAC	Feature Access Code
FAS	Facility Associated Signaling
FAT	Facility Access Trunk Test
FCC	Federal Communications Commission
FEAC	Forced Entry of Account Codes
FIC	Facility Interface Codes
FNPA	Foreign Numbering Plan Area
FRL	Facility Restriction Level
FX	Foreign Exchange
GPTR	General Purpose Tone Receiver
GRS	Generalized Route Selection
HNPA	Home Numbering Plan Area Code
IAS	inter-PBX Attendant Service
IC	Inter-Cabinet
ICC	Inter Carrier Cable
ICDOS	International Customer Dialed Operator Serviced
ICHT	Incoming Call Handling Table
ICI	Incoming Call Identifier
ICM	Inbound Call Management
IDDD	International Direct Distance Dialing
IE	Information Element
INADS	Initialization and Administration System
INS	ISDN Network Service
INWATS	Inward Wide Area Telephone Service
ISDN	Integrated Services Digital Network
ISN	Information Systems Network
ITP	Installation Test Procedures
IXC	Inter-Exchange Carrier Code
KBPS	Kilo-Bits Per Second
LAN	Local Area Network
LAPD	Link Access Procedure Data
LATA	Local Access and Transport Area
LDN	Listed Directory Number
LDS	Long-Distance Service
LED	Light-Emitting Diode

LSU	Local Storage Units
LWC	Leave Word Calling
MA-UII	Message Associated User-to-User Signaling
M-Bus	Memory Bus
MBPS	Mega-Bits Per Second
MCC	Multi-Carrier Cabinet
MCS	Message Center Service
MDM	Modular Data Module
MDR	Message Detail Record
MET	Multibutton Electronic Telephone
MIM	Management Information Message
MIS	Management Information System
MISCID	Miscellaneous Identification
MMS	Material Management Services
MOS	Message Oriented Signaling
MS	Message Server
MSA	Message Servicing Adjunct
MPDM	Modular Processor Data Module
MTDM	Modular Trunk Data Module
MTP	Maintenance Tape Processor
MTT	Multi-Tasking Terminal
MWL	Message Waiting Lamp
NANP	North American Numbering Plan
NAU	Network Access Unit
NCA/TSC	Non-Call Associate/Temporary Signaling Connection
NCOSS	Network Control Operations Support Center
NCSO	National Customer Support Organization
NEC	National Engineering Center
NFAS	Non-Facility Associated Signaling
NID	Network Inward Dialing
NN	National Number
NPA	Numbering Plan Area
NPE	Network Processing Element
NQC	Number of Queued Calls
NSE	Night Service Extension
NSU	Network Sharing Unit
NXX	Public Network Office Code
OA	Operator Assisted
OCM	Outbound Call Management
OPS	Off-Premises Station
OQT	Oldest Queued Time
OSHA	Occupational Safety and Health Act
OSS	Operations Support System
OTQ	Outgoing Trunk Queuing
PBX	Private Branch Exchange
PC	Personal Computer

PCOL	Personal Central Office Line
PCOLG	Personal Central Office Line Group
PCM	Pulse Code Modulated
PCS	Permanent Switched Calls
PDM	Processor Data Module
PDS	Premises Distribution System
PE	Processing Element
PEC	Price Element Codes
PEI	Processor Element Interchange
PGN	Partitioned Group Number
PI	Processor Interface
PIB	Processor Interface Board
PL	Private Line
PMS	Property Management System
PN	Port Network
PPM	Periodic Pulse Metering
PPN	Processor Port Network
PRI	Primary Rate Interface
PSC	Premises Service Consultant
PSDN	Packet Switch Public Data Network
PT	Personal Terminal
RAM	Random Access Memory
RBS	Robbed-Bit Signaling
RCL	Restricted Call List
RHNPA	Remote Home Numbering Plan Area
RLT	Release Link Trunk
RNX	Private Network Office Code
ROM	Read Only Memory
RPN	Routing Plan Number
RSC	Regional Support Center
SABM	Set Asynchronous Balance Mode
SAKI	Sanity and Control Interface
SAT	System Access Terminal
SCC	Single Carrier Cabinet
SCI	Switch Communications Interface
SCO	System Control Office
SDDN	Software Defined Data Network
SDN	Software Defined Network
SID	Station Identification Number
SIT	Special Information Tones
SMDR	Station Message Detail Recording
SPE	Switch Processing Element
SPID	Service Profile Identifier
SSI	Standard Serial Interface
ST3	Stratum 3 Clock Board
STARLAN	Star-based Local Area Network
SVN	Security Violation Notification
SXS	Step-by-Step

TAAS	Trunk Answer From Any Station
TAC	Trunk Access Code
TC	Technical Consultant
TCM	Traveling Class Mark
TDM	Trunk Data Module
TDR	Time of Day Routing
TEG	Terminating Extension Group
TEI	Terminal Endpoint Identifier
TOD	Time of Day
TOP	Task Oriented Protocol
TSC	Technical Service Center
TTR	Touch Tone Receiver
	Terminating Trunk Transmission
TTN	Tandem Tie Trunk Network
TTY	Teletypewriter
UAP	Usage Allocation Plan
UCD	Uniform Call Distribution
UCL	Unrestricted Call List
UDP	Uniform Dial Plan
UL	Underwriter Laboratories
UNP	Uniform Numbering Plan
UPS	Uninterruptible Power Supply
USOP	User Service Order Profile
VDN	Vector Directory Number
VLSI	Very Large Scale Integration
VM	Voltmeter
WATS	Wide Area Telecommunications Service
WSA	Waiting Session Accept
ZCS	Zero Code Suppression

CHAPTER 9.GLOSSARY

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A ---

Across Code

A 1-, 2-, or 3-digit dial code used to activate or cancel a feature or access an outgoing trunk. The [*] and [#] can be used as the first digit of an access code.

Access Endpoint

Either a non-signaling channel on a DS1 interface or a non-signaling port on an Analog Tie Trunk circuit pack that is assigned a unique extension.

Access Tie Trunks

Tie trunk used to handle normal ETN calls between Main and Tandem switches.

ACD Split

An ACD split is a UCD/DDC hunt group in a system where ACD has been optioned by the customer and the hunt group has been administered as used for ACD. ACD Splits are capable of being measured, that is, data concerning the split and its members' status will be sent to the CMS.

Adjunct

Any processor connected to the switch and capable of controlling certain functionalities.

Adjunct-Controlled Split

An ACD split that is administered to be under adjunct control. Login to such split is under adjunct control. When an ACD agent is logged into an adjunct-controlled split, the ACD agent's voice set is locked.

Adjunct-Switch Application Interface

An ISDN interface to adjuncts that permits the adjuncts to establish and control calls, access switch features, and query the information about certain switch resources.

Administer

To access and change the parameters associated with the services or features of the system.

Administered Connection

An end-to-end connection between two access endpoints or two data modules that is automatically established whenever the system is restarted or the administered connection is administered and the Administered Connection is due to be active.

Agent

An agent is a member of a hunt group. The term "ACD agent" is used to specify that the hunt group in question is an ACD split.

Alphanumeric Dialing

Allows a terminal user to place a data call using Data Terminal Dialing (see Data Call Setup feature) and an alphanumeric dialing string or alpha name for the call destination address.

Announcements

Announcements are prerecorded messages that give the caller information. If the first announcement given to a caller is played before the call is queued to any split, it is a Forced First Announcement.

Answer-Back Code

A code dialed to retrieve a parked call.

Answer Supervision

Answer supervision is a signal, sent from the switch to the serving CO, that tells the CO to begin recording toll charges for a call. However, while a call waits in queue, AT&T ACD software often delays sending answer supervision so that the ACD owner/operator or caller can avoid excessive toll charges. Call vectoring commands work in a similar manner, several steps behave differently depending on whether answer supervision has been supplied. The Call Vectoring commands that most notably affect or depend upon answer supervision are the announcement, busy, disconnect, and wait commands.

Appearance

See Call Appearance.

Applications Processor

A minicomputer used to support several user-controlled applications such as traffic analysis and electronic documentation.

ARWAAR Digit Conversion

ARS Digit Conversion replaces the initial digits of a number dialed after the ARS access code (or of a call crossed over from AAR) with another digit string. The call is then routed as if the modified digits were dialed after the AAR access code.

AAR Digit Conversion replaces the initial digits of a number dialed after the AAR access code with another digit string. The call is then routed as if the modified digits were dialed after the AAR access code.

ASAI Adjunct

Any adjunct that makes use of the ASAI protocol, including adjuncts that perform ICM functions.

Asynchronous Data Transmission

A scheme for transmitting data where each character is preceded by a start bit and followed by a stop bit, thus permitting data elements to occur at irregular intervals. This type transmission is advantageous when transmission is not regular (characters typed at a keyboard).

Asynchronous Data Unit (ADU)

A DCE type device that allows direct connection between EIA 232C equipment and the system digital switch.

Attendant

The operator of the Attendant Console. Individual who handles the processing of various types of internal, incoming, and outgoing calls. May also manage and monitor some of the System's operations.

Attendant Console

An electronic call-handling position with pushbutton control. Used by attendants to answer and place calls and to manage and monitor some of the system operations. Two console types are supported; Basic Attendant Console (301A) and Enhanced Attendant Console (302A).

Audio Information Exchange (AUDIX)

A unit that provides voice mail service to users.

Authorization Codes

Authorization Codes have three purposes. First, certain trunk groups that receive incoming calls can be administered to require authorization codes for incoming calls. Secondary, Remote Access to PBX Services users can be required to enter an authorization code instead of, or in addition to, a barrier code when accessing local PBX facilities. Lastly, they can be used for re-routing ARS/AAR calls that were blocked because the default FRL was not high enough to continue routing.

Auto-In

Auto-In is an ACD agent work mode that makes the agent available to receive calls and allows the agent to receive a new ACD call immediately after disconnecting from the previous call.

Automatic Alternate Routing (AAR)

Used to route calls over alternate private and public network facilities in the order of preference specified by the customer. The preference order is specified by translating a group of trunks into a routing pattern that is used for calls to a particular network location. AAR also provides privilege checking that allows the customer to restrict access to particular trunk groups to a limited set of users. This is done by comparing the Facility Restriction Level (FRL) of the calling party with the FRL of the particular routing pattern entry.

Automatic Call Distribution (ACD)

Automatic Call Distribution (ACD) provides automatic termination of incoming calls to agents that have been administered into hunt groups called splits. Calls are distributed according to the algorithm selected by the customer, either UCD or DDC.

Automatic Route Selection (ARS)

ARS provides automatic routing of outgoing calls over customer trunk facilities with transparent access to an IXC based on the DDD number. Alternate trunk groups are selected during peak demand periods when the primary trunk groups are busy. The alternate trunk groups are selected in decreasing order of preference for making the calls.

Automatic Route Selection Partitioning

ARS Partitioning provides for up to eight different user groups having access to their own or shared trunk groups in ARS patterns.

Automatic Trunk

A trunk that does not require the sending or receiving of digits. The destination is predetermined. A request for service on the trunk (called a seizure) is sufficient to route the call. The normal destination of an automatic trunk is the system attendant group.

Automatic Restoration

A service that restores disrupted connections between access endpoints (non-signaling trunks) and data endpoints (devices that connect the switch to data terminal/communications equipment). This restoration is achieved within seconds of a service disruption so that critical data applications can remain operational.

Auxiliary Work

Auxiliary Work is an ACD agent work mode that makes the agent unavailable to receive any ACD calls for the specified split. It is used when an agent is performing non-ACD related activities such as going on a break.

Available Agent

An ACD agent is considered available to receive a call through an ACD split if logged in and not on a call, and in the Auto-In or Manual-In mode.

B

Barrier Code

A security code used with the Remote Access feature to prevent unauthorized access to the system.

Basic Call Management System (BCMS)

The Basic Call Management System (BCMS) provides traffic reports for ACD. The reports are a subset of the adjunct CMS applications.

Bearer Capability Class (BCC)

The Bearer Capability Class (BCC) identifies the type of a call, for example, voice and different types of data. Determination of BCC is based on the call originator's characteristics for non-ISDN endpoints and on signaling in the D-channel for ISDN endpoints. There are five BCCs (0 to 4), based on voice and data Modes 0, 1, 2, 3 capabilities.

Bit (Binary Digit)

One unit of information in binary notation (having two possible states or values, 0 or 1).

Bridge (Bridging)

The appearance of a voice terminal's extension at one or more other voice terminals.

Bridged Appearance

A call appearance on a voice terminal that matches a call appearance on another voice terminal for the duration of a call.

Buffer

A circuit or component that isolates one electrical circuit from another. Typically, a buffer holds data from one circuit or process until another circuit or process is ready to accept the data.

Bus

A multi-conductor electrical path used to transfer information over a common connection from any of several sources to any of several destinations.

Bus, Time Division Multiplex

See Time Division Multiplex Bus.

Business Communications Terminals

An advanced series of semi-intelligent terminals.

Bypass Tie Trunks

One-way, outgoing tie trunks from a Tandem switch to a Main switch in an ETN. These trunks, provided in limited quantities, are used as a "last-choice" route when all trunks to another Tandem switch are busy. Bypass tie trunks are used only if all applicable inter-tandem trunks are busy.

Byte

A sequence of bits, eight bits long, that is usually shorter than a word. A word is 16 bits long.

C

Call Appearance, Attendant Console

Six buttons, labeled a through f, used to originate, receive, and hold calls. Each button has two associated lamps to show the status of the call appearance.

Call Appearance, Voice Terminal

A button labeled with an extension number used to place outgoing calls, receive incoming calls, or hold calls. Two lamps next to the button show the status of the call appearance or status of the call.

Call Classification

The function of receiving and/or detecting call progress tones and call outcalling (ringing, busy, answered) and notifying the adjunct responsible for recoding the call status. Call classification may be done by the switch automatically or done by the user listening to call progress tones.

Call Management System (CMS)

An adjunct processor that collects data from an ACD and generates reports to be stored or displayed concerning status of agents, splits, and trunks.

Callback Call

A call that is automatically returned to a voice terminal user who activated the Automatic Callback or Ringback Queuing feature.

Call Vector

A set of up to 15 vector commands to be performed for an incoming or internal call.

Call Vectoring

A flexible call handling method of managing incoming calls that gives unique treatment to a particular call type based on dialed number or trunk terminating to a vector. Vector commands dictate the treatment given to callers.

Call Vector Step

Vectors are made up of 15 steps that are processed sequentially unless a “GoTo” vector command is encountered or vector processing stops.

Call Waiting Ringback Tone

A low-pitched tone identical to the ringback tone except the tone decreases the last 0.2 second. This tone notifies the attendant that the Attendant Call Waiting feature has been activated and that the called user is aware of the waiting call.

Call Work Code

A number, up to 16 digits, entered by ACD agents to record the occurrence of customer-defined events (such as account codes, social security numbers, or phone numbers) on ACD calls.

Central Office (CO)

The location housing telephone switching equipment that provides local telephone service and access to toll facilities for long-distance calling.

Central Office Codes

The first three digits of a 7-digit public network telephone number. These codes are typically numbered from 200 through 999.

Central Office Trunk

A telecommunications channel that provides access from the system to the public network through the local CO.

Channel

A communications path for transmitting voice and data.

Circuit Pack Vintage

The vintage of a circuit pack is a numeric tag to identify the Read Only Memory that resides on that pack. It is used to facilitate record keeping and maintainability.

Class of Restriction (COR)

A number (0 through 63) that specifies the restrictions assigned to voice terminals, voice terminal groups, data modules, and trunk groups.

Class of Service (COS)

A number (0 through 15) that specifies if voice terminal users can activate the Automatic Callback, Call Forwarding—All Calls, Data Privacy, or Priority Calling features.

Common Control Switching Arrangement (CCSA)

A private telecommunications network using dedicated trunks and a shared switching center for interconnecting company locations.

Confirmation Tone

Three short bursts of tone followed by silence; indicates that the feature activated, deactivated, or canceled has been accepted.

Console

See Attendant Console.

Controlled Outward Restriction

A calling party with this feature activated is restricted from dialing outgoing exchange network calls. Restricted calls are routed to the attendant, coverage, or intercept.

Controlled Restrictions

The controlled restrictions are distinct from the calling and called restrictions administered through the COR. Controlled Restrictions are activated by an attendant or by a station with the "Console Permission" COS. The controlled restrictions are activated for an individual terminal or for a predefined group of terminals. The COR is used to predefine a group of terminals.

Controlled Station-to-Station Restriction

A calling party or called party with this feature activated is restricted from placing or receiving station-to-station calls. Restricted calls are routed to the attendant, coverage, or intercept.

Controlled Termination Restriction

A called party with this feature activated is restricted from receiving any calls. Restricted calls are routed to the attendant, coverage, or intercept. This form of controlled restriction is used in the Do Not Disturb feature to prevent termination to a user. It may be overridden only by a priority call.

Controlled Total Restriction

A calling party or called party with this feature activated is restricted from placing or receiving any calls. DID or APLT calls to a station with Controlled Total Restriction active are routed to the attendant or to a recorded announcement. All other calls are routed to intercept.

Coverage Answer Group

A group of up to eight voice terminals that ring simultaneously when a call is redirected to it by Call Coverage. Any one of the group can answer the call.

Coverage Call

A call that is automatically redirected from the called party's extension number to an alternate answering position when certain coverage criteria are met.

Coverage Path

The order in which calls are redirected to alternate answering positions.

Coverage Point

The attendant positions (as a group), DDC group, UCD group, Coverage Answer Group, a voice terminal extension, or Message Center Hunt Group designated as an alternate answering position in a coverage path.

Covering User

The person at an alternate answering position who answers a coverage call.

D

Data Channel

A communications path between two points used to transmit digital signals.

Data Communications Equipment (DCE)

The equipment on the network side of a communications link that provides all the functions required to make the binary serial data from the source or transmitter compatible with the communications channel.

Data Endpoint

Data Endpoints refer to the various DTE and DCE that are connected to the System. They are associated with an extension. In the switching environment, they can be analog or digital endpoints serving as the interface between a host computer port and the switch, or between a data network and the switch.

Data Terminal Equipment (DTE)

Equipment comprising the source or link of data, or both, that also provides communication control functions (protocol). DTE is any piece of equipment at which a communications path begins or ends.

D-Channel Pair

Refers to a pair of D-Channels, where one is designated as the primary D-Channel, and the other is the secondary D-Channel.

Distributed Communication System (DCS)

A private network of distributed switches linked together with private trunks and data links.

Default Dialing

Enhances Data Terminal Dialing by allowing a data terminal user to place a data call to a pre-administered destination by simply entering a carriage return at the "DIAL" prompt. (See Data Call Setup—Chapter 4.)

Delay-Dial Trunk

After a request for service (called a seizure) is detected on an incoming trunk, the system sends a momentary signal followed by a steady tone over the trunk. This informs the calling party that dialing can start. This type of trunk allows dialing directly into the system. That is, the digits are received as they are dialed.

Designated Voice Terminal

The specific voice terminal to which calls, originally directed to a certain extension number, are redirected. Commonly used to mean the "forwarded-to" terminal when Call Forwarding All Calls is active.

Dialed Number Identification Service

Provides an indication (display) to the answering agent of the service (or project) or number called by the caller so that agents grouped in one split may answer calls appropriately for many different services.

Digital Communications Protocol (DCP)

Defines the capability for providing simultaneous voice and data transmission over the same channel.

Digital Data Endpoints

Digital data endpoints include the following:

- 510D Personal Terminal or 515-Type Business Communications Terminal
- 7404D Terminals
- 7406D or 7407D Equipped With Optional Data Module Base
- Asynchronous Data Units
- Digital Terminal Data Modules
- (Modular) Processor Data Modules

- (Modular) Trunk Data Modules
- 3270 Data Modules
- Internal Data Channels.

Digital Multiplexed Interface (DMI)

Specifies the remote interface requirements for multiplexed data communications between a host computer and a private switching system.

Digital Terminal Data Module (DTDM)

An adjunct to Model 7403D or 7405D voice terminals. Provides the required interface between the system and a data terminal such as a 513 Business Communications Terminal.

Digital Trunk

A circuit in a telecommunications channel designed to handle digital voice and data.

Digit Conversion

A process used to convert specific dialed numbers into other dialed numbers. ARS uses Digit Conversion to convert public network numbers (ARS) to private network numbers (AAR) in order to save toll charges. AAR uses Digit Conversion to convert private network numbers (ARS) to other private or public network numbers (AAR).

Direct-Agent Calls

A special type of ACD call directed to a particular agent, rather than any available agent in the split.

Direct Agent Calling (DAC)

An entry is provided in the COR to allow originating and receiving of direct-agent calls. A direct-agent call is a special type of ACD call directed to a particular agent, rather than any available agent in the split.

A calling party that is DAC restricted is denied the ability to originate direct-agent calls. A called party that is DAC restricted is denied the ability to receive direct-agent calls. Restricted calls are routed to intercept.

Direct Extension Selection (DXS)

An option at the attendant console that allows an attendant direct access to voice terminals by pressing a Group Select button and a DXS button.

Distributed Communications System (DCS)

The Distributed Communications System is a private network of distributed switches linked together with trunks to form a DCS complex. The switches in the complex are connected with data links that allow call processing information to be passed from one

switch to another. This provides feature transparency so that certain features are perceived by users to be the same whether they are talking to a station served by the same switch or to a station on a different switch in the complex.

Data Services Level 1 (DS1)

A DS1 trunk multiplexes up to twenty-four 64 kbps digital channels over a 4-wire interface for data or voice. The 64 kbps capacity is achieved by having 8000 frames of eight bit data per second. This trunk can be used as a timing reference for the switch or by an external Stratum 3 clock.

E

Electronic Tandem Network (ETN)

A special tandem tie trunk network that has automatic call routing capabilities based on the number dialed and most preferred route available at the time the call is placed. Each switch in the network is assigned a unique private network office code (RNX) and each voice terminal is assigned a unique extension number.

End-to-End Signaling

The transmission of touch-tone signals generated by dialing from a voice terminal user to remote computer equipment. A connection must first be established over an outgoing trunk from the calling party to the computer equipment. Then additional digits can be dialed to transmit information to be processed by the computer equipment.

Enhanced Private Switched Communications Service (EPSCS)

A private telecommunications network that provides advanced voice and data telecommunications services to companies with many locations.

Expansion Interface (EI)

Used to connect an EPN to the PPN TDM Bus and provide connectivity between the TDM Buses on the PPN and EPNs. This circuit pack carries synchronization information between the two cabinets that it connects and also provides connectivity between the packet buses on the PPN and EPNs.

Expansion Port Network (EPN)

A cabinet that contains port circuit packs but no processor. Up to two EPNs may be connected to a PPN.

Extension Number

A 1- to 5-digit number assigned to each voice terminal, certain system groups, data modules, and various other facilities on the switch. The number is used in call processing to access the facility.

External Call

A connection between a system user and a party on the public telephone network or on a tie trunk.

F

Facility

A general term used for the telecommunications transmission pathway and associated equipment.

Facility Restriction Level (FRL)

The Facility Restriction Level (FRL) is used to determine the accessibility of a user trunk groups in a routing pattern. When searching for a routing pattern, the originator's FRL must be greater than or equal to the FRL for the accessed trunk group.

FAS/NFAS

Facility-Associated Signaling (FAS)—describes the type of signaling in which an ISDN DS1 interface D-Channel carries signaling information for only those B-Channels located on the same DS1 facility as the D-Channel.

Non-Facility Associated Signaling—describes the type of signaling in which an ISDN DS1 interface D-Channel carries signaling information on one DS1 facility for B-Channels located on another DS1 facility.

Feature

A specifically defined function or service provided by the system.

Feature Button

A labeled button on a voice terminal or attendant console designating a specific feature.

Foreign Exchange (FX)

A CO other than the one providing local access to the public telephone network.

Foreign Exchange Trunk

A telecommunications channel that directly connects the system to a central office other than its local central office.

Foreign Numbering Plan Area Code (FNPA)

An area code other than the local area code. The foreign area code must be dialed to call outside the local geographical area.

G

Ground-Start Trunk

On outgoing calls, the system transmits a request for services to the distant switching system by grounding the trunk ring lead. When the distant system is ready to receive the digits of the called number, that system grounds the trunk tip lead. When the system detects this ground, the digits are sent. (Tip and ring are common nomenclature to differentiate between ground-start trunk leads.) On incoming calls, detection of ground on the ring lead is sufficient to cause the call to route to a predetermined destination, normally the system attendant group. No digits are received.

H

Handshaking Logic

A format used to initiate a data connection between two data module devices.

Home Numbering Plan Area Code (HNPA)

The local area code. The area code does not have to be dialed to call numbers within the local geographical area.

Hospitality

Hospitality features, such as Automatic Wakeup and Do Not Disturb, are those required for the administration of stations considered to be “guests” or “clients” of the customer. Additionally, these features allow the customer to connect the System to a PMS, which is used to collect and manage guest room information.

Hospitality Parameter Reduction

Provides the user with a reduced set of system parameters. Namely, the number of trunks, number of hunt-groups, number of pick-up groups and the number of coverage paths.

Host

A customer processor that, when connected to the switch using ASAI, for example, is considered an adjunct.

Hunt Group

A group of stations which answer calls that are distributed using a routing algorithm. An ACD split is a special type of hunt group.

I

Immediate-start Tie Trunk

After establishing a connection with the distant switching system for an outgoing call, the system waits a nominal 65 milliseconds before sending the digits of the called number. This allows time for the distant system to prepare to receive the digits. Similarly, on an incoming call, the system has less than 65 milliseconds to prepare to receive the digits.

Information Exchange

The exchange of data between users of two different systems (DEFINITY Generic 3i and host computer) over a local area network.

Initialization and Administration System (INADS)

An AT&T Network Operations Division (NOD) services alarm reception and trouble tracking system.

Integrated Services Digital Network-Primary Rate Interface (ISDN-PRI)

ISDN-PRI is an internationally accepted standard interface that provides end-to-end digital connectivity. It uses a high-speed interface which provides service independent access to switches services. It uses a T1 Interface and supports twenty-three 64 kbps voice or data "B-Channels" and one 64 kbps signaling "D channel" (on the 24th channel when using Facility Associated Signaling) or 24 "B-Channels" on one DS1 facility and a "D-Channel" on a separate DS1 facility (when using Non-facility Associated Signaling) for a total bandwidth of 1.544 MB.

Intercept Tone

An alternating high and low tone; indicates a dialing error or denial of the service requested.

interface

A common boundary between two systems or pieces of equipment.

Interflow

InterFlow allows calls directed or redirected to one split to be redirected to an external destination.

Internal Call

A connection between two users within the system.

Interworking

The linking of dissimilar networks to provide an end-to-end call. In public networks interworking might include a Common Channel Intetroffice Signaling (CCIS) path, which does not support ISDN. In private networks, a tandeming PBX might interface an existing analog facility to an ISDN facility to provide calls end-to-end.

Intraflow

Intraflow allows calls that are unanswered within a predefined time, at a split to be redirected to other split on the same switch.

In-Use Lamp

A red lamp on a multi-appearance voice terminal that lights to show which call appearance will be selected when the handset is lifted or which call appearance is active when a user is off-hook.

Inward Restriction

A called party is that inward restricted is denied the ability to receive incoming exchange network calls, attendant originated calls, and attendant completed calls.

A call that is denied because of termination or inward restriction is routed to intercept, the attendant, or a recorded announcement depending on the calling party. If the calling party is a DID, APLT or tie trunk, the call is routed to the attendant or recorded announcement, at the customer's option. In all other cases the call is routed to intercept. .

Integrated Services Digital Network-Basic Rate Interface (ISDN-BRI)

ISDN-BRI is one of the two standard ISDN frame formats. The ISDN-BRI is typically used to connect telephones or work stations to an ISDN capable switching system. It provides one 16 kbps signaling and data channel (D-channel) and two 64 kbps information channels (B-channels). The primary purpose of the signaling channel is to convey Q.931 message oriented signaling for the setup and tear down of calls carried by the B-Channels on the BRI interface.

ISDN-BRI is only used to provide an ASAI link to the switch in support of the Inbound Call Management feature.

ISDN Gateway

An adjunct network that forwards information from the switch to a host for data screen delivery to agents in an ACD split.

L

Link

A transmitter-receiver channel or system that connects two locations.

Listed Directory Number (LDN)

A Listed Directory Number (LDN) is a publically listed telephone number for an organization. These numbers are administered as special extensions, each associated with a fifteen character name. DID for any of these extensions causes routing of the call to the attendant group with the terminating attendant display indicating an LDN call and the name associated with the dialed extension.

Local Clock

The tone/clock circuit pack that has a local oscillator that can be used to maintain timing for the switch if DS1's are not used or if both DS1 primary and secondary clock references fail.

Lookahead Interflow

Lookahead Interflow is an enhancement to Call Vectoring that checks the status of remote ACD locations that calls may be interflowed to. For example, calls under vector control will not interflow to a remote ACD location that is not accepting calls. This capability will be provided via the use of a private or public network ISDN-PRI connection with the receiving switch having the capability to reject or accept the call.

Loop-Start Trunk

After establishing a connection with the distant switching system for an outgoing call, the system waits for a signal on the loop formed by the trunk leads before sending the digits of the called number. On incoming calls, the received request for service is sufficient to cause the call to route to a predetermined destination, normally the system attendant group. No digits are received.

M

Main/Satellite/Tributary

A Main switch provides: interconnection, via tie trunks, with one or more subtending switches, called Satellites; all attendant positions for the Main/Satellite configuration; and, access to and from the public network. To a user outside the complex, a Main/Satellite configuration appears as a single switch, with a single LDN. A Tributary is a switch, connected to the Main via tie trunks, but which has its own attendant position(s) and its own LDN.

Manual-In

Manual-In is an ACD agent work mode that makes the agent available to receive calls and automatically puts the agent into After Call Work mode after disconnecting from an ACD call.

Manual Terminating Line Service

A called party that has manual terminating line service is only allowed to receive calls originated or extended by an attendant. Termination of all other calls is denied.

Message Center

An answering service for calls that might otherwise go unanswered; an agent accepts and stores messages for later retrieval.

Message Center Agent

A member of the Message Center Hunt Group who takes and retrieves messages for voice terminal users.

Miscellaneous Station Restriction

A calling party can be disallowed access to pre-selected groups of terminals. The term miscellaneous refers to this grouping of terminals. Any or all terminals can be in a given miscellaneous station restriction group. This restriction is controlled by the CORs assigned to the calling party and to the terminal being accessed. All terminals in a given miscellaneous station restriction group must be assigned the same COR. A calling party is restricted by its COR which denies permission to call the terminal's COR. Restricted calls are routed to intercept.

Miscellaneous Trunk Restriction

A calling party can be disallowed access to pre-selected groups of trunk groups. The term miscellaneous refers to this pre-selected grouping of trunk groups. Any or all trunk groups can be in a given miscellaneous trunk restriction group. This restriction is controlled by the CORs assigned to the calling party and to the trunk group being accessed. All trunk groups in a given miscellaneous trunk restriction group must be assigned the same COR. A calling party is restricted by its COR which denies permission to call the trunk group's COR. Restricted calls are routed to intercept.

Modular Processor Data Module (MPDM)

See Processor Data Module.

Modular Trunk Data Module (MTDM)

See Trunk Data Module.

Modem Pooling

Provides shared-use conversion resources that eliminate the need for a dedicated modem when a data module accesses, or is accessed by, an analog line or trunk.

Multi-Appearance Voice Terminal

A terminal equipped with several call appearance buttons for the same extension number. Allows the user to handle more than one call, on that same extension number, at the same time.

Multiplexer

A device for simultaneous transmission of two or more signals over a common transmission medium.

O**Offhook**

Term used for the switchhook up, or the Speakerphone turned on, or the Headset plugged in. For multi-appearance stations, the term offhook also includes choosing a call appearance on which to originate the call.

Off-Net

Off-Net facilities (for example, WATS, FX, or CO trunk groups) are not part of a customer's private network, but may be utilized to carry private network calls. Whenever the call uses Off-Net facilities, it is called an Off-Net call.

Onhook

Term used for a depressed switchhook, the Speakerphone turned off, or the Headset unplugged. Also, depression of the DISCONNECT button sends an onhook message, followed by an offhook message.

On-Net

On-Net facilities (for example, TIE trunks, private ISDN-PRI trunks) are dedicated to a customer's private network. Whenever the call is routed over the customer's private trunking facilities, it is called an On-Net call.

Outward Restriction

A calling party that is outward restricted is denied the ability of directly accessing the exchange network.

N

Network

An arrangement of inter and/or intra location circuits designed to perform specific functions.

Non-Facility Associated Signaling

See FAS/NFAS.

P

Paging Trunk

A telecommunications channel used to access an amplifier for loudspeaker paging.

Partitioned Group Number (PGN)

A Partitioned Group Number (PGN) is a number (1 through 8) assigned to different groups of users. The PGN is used to determine the AAR/ARS services to be provided on a call. A PGN is not used directly to restrict the user, it is only used as a method to indicate the choice of call routing tables (AAR/ARS Analysis forms) to be used to process a call.

Pickup Group

A group of individuals authorized to answer any call directed to an extension number within the group.

Port

A designation of the location of a circuit that provides an interface between the system and lines and/or trunks.

Port Network

May be either an EPN or a PPN.

Primary Reference

A DS1 circuit pack facility used as a reference for clock timing synchronization; the primary reference should be chosen to be a more reliable DS1 link.

Primary/Secondary D-Channel

The D-Channel Backup feature requires that one D-Channel be administered as the primary" D-Channel, and that a second D-Channel be administered as the secondary" D-Channel. The reason for this distinction is that at certain times during the D-Channel Backup procedures, both D-Channels are in the same state, and it is imperative in order

to avoid a deadlock situation that both switches at opposite ends of the PRI select the same D-Channel to be put into service. In these case, the primary D-Channel is given precedence over the secondary D-Channel.

Principal (User)

In terms of Call Coverage, a person for whom a call was originally intended.

Priority Queuing

An entry is provided in the COR to allow priority queuing. The queuing priority of a call can be raised such that when a call with increased priority is queued, it is queued ahead of calls of normal priority. This priority queuing is for non-vector controlled calls and non-direct-agent calls.

Private Networking

A Private Network is a network of customer switches linked with private lines that carry voice and data communication throughout the network. A Private Network is characterized by a uniform numbering plan that includes the assignment of a unique number to each station in the network. The AAR Analysis table is used to route private network calls.

Private Network Office Code (RNX)

The first three digits of a 7-digit private network number. These codes are numbered 220 through 999, excluding any codes that have a 0 or 1 as the second digit.

Privileged Station

A station that has been administered with console privileges allowing it to perform functions normally associated with an attendant.

Processor Data Module (PDM)

Provides the required interface between the system and an EIA computer or data terminal.

Processor Port Network

The cabinet in which the switch processor resides. Only one of these per switch is allowed.

Property Management System (PMS)

A stand-alone computer that Lodging and Health Services organizations use for services such as reservations, housekeeping, billing, etc.

Protocol

A set of conventions or rules governing the format and timing of message exchanges to control data movement and correction of errors.

Public Network

The network that can be openly accessed by all customers for local or long-distance calling.

Q

Queue

An ordered sequence of calls waiting to be processed.

Queuing

The process of holding calls in order of their arrival to await connection to an attendant, to an answering group, or to an idle trunk.

R

Random Access Memory (RAM)

A storage arrangement whereby information can be retrieved at a speed independent of the location of the stored information.

Read Only Memory (ROM)

A storage arrangement primarily for information retrieval applications.

Recall Dial Tone

Three short bursts of tone followed by steady dial tone; indicates the system has completed some action (such as holding a call) and is ready to accept dialing.

Redirection Criteria

The information administered for each voice terminal's coverage path that determines when an incoming call is redirected to coverage.

Remote Access Barrier Code

Used with remote access trunks to limit access to the System. When a call comes in on a remote access trunk, the user may be required to dial a barrier code to gain access. If the user dials an invalid barrier code, the call is routed to intercept.

A barrier code has an associated COR that defines call restriction features and COS that defines feature restrictions. The use of barrier codes is a customer option. If barrier codes are used, they apply to all remote access trunk groups in a given System. If they are not required, the default barrier code's COR is used. There may be more than one barrier code in the System.

Remote Home Numbering Plan Area Code (RHNPAC)

A foreign numbering plan area code that is treated as a home area code by the Automatic Route Selection feature. Calls can be allowed or denied based on the area code and the dialed central office code rather than just the area code. If the call is allowed, the Automatic Route Selection pattern used for the call is determined by these six digits.

Removable Mass Storage Subsystem (RMSS)

A tape storage device that stores the software information for the system.

Reorder Tone

A fast-busy tone repeated 120 times a minute; indicates that at least one of the facilities, such as a trunk or a digit transmitter, required for the call was not available at the time the call was placed.

Restricted Call List

A list of digit strings that can be assigned to any COR.

Routing Pattern

A routing pattern is a list of up to six trunk groups that ARS and AAR use to try to select a trunk when routing outgoing calls. There are a maximum of 254 routing patterns that can be assigned. The patterns can be shared between the AAR and ARS features.

Trunk groups are arranged in the routing pattern in descending order of desirability (most desirable first). If the first choice route (usually the least expensive facility) is unavailable, a call is attempted over the second choice route. This procedure continues until an available route is found, or all routing preferences are exhausted.

S

Secondary Reference

The secondary reference is a backup DS1 facility used as a clock timing reference for synchronization in case the primary reference fails or has too many slips.

Service Observing

Service observing allows users to monitor calls. Once the feature is activated and a station call is being monitored, the activating user has the capability to toggle back and forth between a listen-only connection and a listen/talk connection on the call. Subsequent calls at the station can be monitored without having to reactivate the feature.

Signaling Groups

Refers to a group of B-Channels for which a given D-Channel (or D-Channel Pair) will carry the signaling information.

Single-Line Voice Terminals

Voice terminals served by a single-line tip and ring circuit (for example, models 500, 2500, 7101A, 7103A).

Software

A set of computer programs that accomplish one or more tasks.

Special Information Tones (SIT)

Tones that precede certain recorded announcements provided by the network. Such announcements are used when the caller encounters a condition that requires an explanation (for example, "no such number").

Split

A condition whereby a caller is temporarily separated from a connection with the attendant. This split condition automatically occurs when the attendant, active on a call, presses the Start button.

Standard Serial Interface (SSI)

A communications protocol developed by AT&T Teletype Corporation for use with the 500 Business Communications Terminals and the 400-series printers.

Status Lamp

A green lamp that shows the status of a call appearance or a feature button by the state of the lamp (lighted, flashing, fluttering, broken flutter, or dark).

Stratum 3 Clock

This is the most accurate clock supported by the System; it is duplicated and has a hold-over of 24 hours. The implementation requires external hardware to provide timing to the TN780 Tone/Clock circuit pack.

Stroke Counts

Method used by ACD agents to record up to nine customer-defined events on a per call basis when the Call Management System (CMS) is active.

Suffix

A suffix is an alphabetic character (for example, A, B, C) that is sometimes appended to a circuit pack code (TN number). It indicates additional feature functionality of a particular circuit pack.

Switchhook

The button(s) on a voice terminal located under the receiver.

Switch Processing Element (SPE)

The complex of circuit packs that provide high level processing functions within the switch.

Synchronous Data Transmission

A scheme for sending and receiving data, where data elements may occur only at regular specified times. Sending and receiving devices must operate in step with each other.

System Manager

A person responsible for specifying and administering features and services for the system.

System Reload

A process that allows stored data to be written from a tape into the system memory (normally after a power outage).

T

Tandem Switch

A switch within an ETN that provides the logic to determine the best route for a network call, possibly modifies the digits outpulsed, and allows or denies certain calls to certain users.

Tandem Through

The switched connection of an incoming trunk to an outgoing trunk without human intervention.

Tandem Tie Trunk Network (TTTN)

A private network that interconnects several customer switching systems by dial repeating tie trunks. Access to the various systems is dictated by codes that must be individually dialed for each system.

Terminal Alarm Notification

A method of customer alarm notification using lamps associated with feature buttons on multi-appearance digital or hybrid voice terminals or attendant console terminals or both.

Termination Restriction

A called party that is termination restricted is denied the ability to receive any calls at any time.

Third Party Call Control

CallVisor ASAI capabilities that allow a host/adjunct to take control of a call, to transfer the call, etc.

Tie Trunk

A telecommunications channel that directly connects two private switching systems.

Time Division Multiplex Bus

A special bus that is time shared by preallocating short time slots to each transmitter on a regular basis. In a PBX, all port circuits are connected to the time division multiplex bus permitting any port to send a signal to any other port.

Time Division Multiplexed (TDM)

A switching technique of splitting a large bandwidth into many small channels (called time slots) in the time domain.

Time of Day Routing (TOD)

Time of Day Routing allows the routing of calls economically, based on time of day and day of week. The customer has the option of changing the routing plan up to six times each day for each day of the week. The choice of routing plan is made from a pool of routing plans. These routing plans are used in conjunction with the routing of ARS and AAR Calls.

Toll Restriction

A calling party that is toll restricted cannot make calls to certain numbers defined on the Toll List unless the number is contained on a UCL defined on the Toll analysis form and associated with the calling party's COR.

Tone/Clock

The Tone/Clock circuit pack provides tone generation and timing for the TDM bus. The active Tone/Clock circuit pack is currently providing service for the cabinet in a duplicated system whereas the standby tone/clock is a backup circuit pack in the event the active tone/cock fails.

Tone Ringer

A device with a speaker, used in electronic voice terminals to alert the user.

Trunk

A telecommunications channel between two switching systems.

Trunk Data Module (TDM)

Provides the required interface between the system and a data set (modem) or data service unit connected to a private or switched data line.

Trunk Group

Telecommunications channels assigned as a group for certain trunking functions.

U

Uniform Dial Plan (UDP)

A feature that allows a unique 4- or 5-digit number assignment for each terminal in a multi-switch configuration, such as a DCS or Main/Satellite/Tributary configuration.

Unrestricted Call List (UCL)

A list of digit strings that can be accessed by a user.

V

Vector Controlled Split

A hunt group or ACD split is vector controlled when the field "Vector" is enabled on the Hunt Group form. Only vector controlled hunt groups or vector controlled ACD splits are accessible via the vector commands "queue to main" and "check backup."

Vector Directory Number (VDN)

A number that can be dialed to access a vector. Several VDNs may map into the same vector.

Vectoring (Basic)

Allows the customer to specify the treatment of calls coming into the switch based upon the dialed number. Vectoring (Basic) allows incoming calls to be placed in a queue for a hunt group or split and may specify the delay treatment given to the caller.

Vectoring (Prompting)

Allows a call vector to collect digits from a user and use that information in routing the call.

Voice Terminal

A single-line or multi-appearance voice terminal (telephone).

W

Wide Area Telecommunications Service (WATS)

A service that allows calls to a certain area or areas for a flat-rate charge based on expected usage.

Wink-Start Tie Trunk

After establishing a connection with a distant switching system for an outgoing call, the system waits for a momentary signal (wink) before sending the digits of the called number. Similarly, on an incoming call, the system sends the wink signal when ready to receive digits.

Write Operation

The process of putting information onto a storage medium such as magnetic tape.

Z

Zip Tone

Single burst tone is provided with auto-answering operation when an agent answers an ACD call.

8

800 Service

A service that allows incoming calls from a certain area or areas to an assigned number for a flat-rate charge based on usage.

APPENDIX A

Service Profile Identifier (SPID) Installation

A-1

APPENDIX A

Service Profile Identifier (SPID) Installation

All AT&T interface terminals used with the AT&T 5ESS® switch or the DEFINITY® Communications System Generic 3i or Generic 2 must have a unique SPID number recorded within the terminal. A SPID is not required when the terminal is used with the 5E4 switch. The SPID is entered into the terminal via the terminal's key pad. A terminal connected to the DEFINITY Generic 3i typically uses the terminal's extension number as its SPID. This number is a default value that appears on the BRI station or data module administration forms.

CAUTION: The SPID number identifies your terminal to the network and should not be changed unless your System Administrator so indicates. Changing the value could result in loss of service.

Use the following procedure to enter the SPID into the terminal and key telephone.

1. On 7500D voice terminals, press the **Shift/Select** or **Select** button.

On 8503T voice terminals, press the **Program** button.

Message lamp comes on.

2. Press the **Mute** button followed by key pad digits "1" and "D" ("4" and "3," respectively).

The present value of the SPID is shown on the display.

3. Enter digits from the key pad for the new SPID number.

Note: To erase a SPID, enter "*."

To save a SPID, enter "#."

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