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Acknowledgment

This document was prepared by the Customer Training and Information Products group, Lucent Technologies, Denver, CO.

CentreVu™ Call Management System

Release 3 Version 5

Administration

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General Information

The *CentreVu™* Call Management System (CMS) *R3V5 Administration* (585-215-820) document was written primarily for the *CentreVu* CMS administrator who has access to all parts of the *CentreVu* CMS, and secondarily for administrators (such as split/skill supervisors) who have limited access to the *CentreVu* CMS.

Note

Read Chapter 1, "Introduction", and Chapter 2, "User Basics", to learn more about the *CentreVu* CMS. If you are unfamiliar with the Automatic Call Distribution (ACD) feature, see Appendix A, "ACD Basics".

If you are implementing R3V5 for the first time, you may have a *DEFINITY®* Enterprise Communications Server (ECS) Release 5. If you are upgrading from an earlier version of CMS or *CentreVu* CMS, you may have a Generic 3 (G3), Generic 2 (G2) or a System 85 R2V4 switch version.

This book specifically addresses the ECS functionality of *CentreVu* CMS. Where there is a difference in the functionality due to an earlier switch release, it is called out according to the switch release affected. See the conventions section of this Preface for information on the callouts.

Document Organization

The following list describes the contents of each chapter and appendix in this document:

Chapter 1 **Introduction**—describes the *CentreVu* CMS, ACD/CMS parameters, terminals and printers, menus and submenus, terminal refresh rates for real-time reports, and escalation procedures.

Chapter 2 **User Basics**—describes the *CentreVu* CMS user interface and gives you the necessary information for completing any action using this interface.

Note

It is extremely important that you read this chapter before trying to complete any *CentreVu* CMS task.

Chapter 3 **Timetable and Shortcut**—tells you how to schedule the execution of tasks (such as printing reports or archiving data) for times convenient for you and your call center using Timetable. Shortcut is similar to Timetable except that a shortcut happens immediately and is a fast, easy way to select windows that you might look at every day or several times during the day.

Chapter 4 **Dictionary**—tells you how to assign agent names to login IDs and how to name and describe your splits/skills, trunk groups, ACDs, VDNs, and Vectors. The chapter also tells you how to access and administer the data elements you use in custom reports. Finally, the chapter tells you how to create special agent reporting groups without regard to splits/skills.

Chapter 5 **Exceptions**—tells you how to specify exception conditions for agent, split/skill, trunk group, VDN, and Vector activity so that *CentreVu* CMS notifies you when an unusual call-handling event occurs or condition exists. The chapter also describes the Real-Time Exceptions Log, the historical exception reports, and how to monitor real-time agent exceptions on your terminal.

Chapter 6 **ACD Administration**—tells you how to view and change various ACD parameters on your switch from *CentreVu* CMS. You can move extensions between splits; change skill assignments; set a maximum acceptable service level for calls to wait in queue before being answered; start an

Agent Trace; generate a report showing extensions that are members of a specific split and a report showing trunk members and their equipment locations for a trunk group.

You can also view trunk group assignments (the ECS or Generic 3 with Vectoring); add, delete, or modify the contents of a vector; view and move trunk groups from one split to another, set the delay time for prerecorded announcements, and forward calls from splits to other destinations (Generic 2); and define Call Work Codes.

Chapter 7 **User Permissions**—tells you how to assign specific *CentreVu* CMS user data like a user ID, a default printer, and the maximum number of open user windows. You can also grant user access permissions for the *CentreVu* CMS subsystems (for example, Reports) and certain Screen-Labeled Key (SLK) menu items along with splits/skills, trunk groups, ACDs, VDNs, and Vectors within your call center.

Chapter 8 **System Setup**—displays how your *CentreVu* CMS was set up during installation. These items include the amount of storage to be used for collecting historical data, allocated free space, and your storage interval (15, 30, or 60 minutes).

You will also use System Setup for *CentreVu* CMS administration activities like changing the *CentreVu* CMS state from single-user to multi-user mode; turning data collection on or off; archiving data on demand for daily, weekly, and/or monthly summaries; creating a pseudo-ACD where previously backed-up historical data is stored; adding Main Menu items; and migrating data from R2 CMS to *CentreVu* R3V5 CMS and any previous R3 CMS to *CentreVu* R3V5 CMS. See the *CentreVu™ CMS R3V5 Upgrades and Migrations* (585-215-826) document for more information on data migration.

<i>Chapter 9</i>	Maintenance —tells you how to back up and restore <i>CentreVu</i> CMS data, assign backup and restore devices, assign printer names and options, monitor the data link to the switch, view various items which <i>CentreVu</i> CMS is measuring for the selected ACD, and view the Error Log report.
<i>Chapter 10</i>	UNIX[*] System/Solaris[†] System —tells you how to access the <i>UNIX</i> operating system or the <i>Solaris</i> operating system and perform various tasks associated with <i>CentreVu</i> CMS.
<i>Appendix A</i>	ACD Basics —overviews the ACD environment. This appendix contains descriptions of concepts, such as call routing, agent states, call processing, and switch administration that should be understood by all <i>CentreVu</i> CMS administrators.
<i>Appendix B</i>	Call Vectoring and Related Generic 3 Features —describes how the <i>CentreVu</i> CMS Vectoring feature works with the Call Vectoring and Call Prompting features on Generic 3 switches.
<i>Appendix C</i>	Call Vectoring and Related Generic 2 Features —describes how the <i>CentreVu</i> CMS Vectoring feature works with the Call Vectoring feature on Generic 2 switches.
<i>Appendix D</i>	CentreVu CMS and the Expert Agent Selection Feature —describes the Expert Agent Selection (EAS) feature for the G2.2 and G3 switches, and the Enterprise Communications Server (ECS). This appendix also describes what your call center should do before activating the EAS feature and how <i>CentreVu</i> CMS tracks this feature.
<i>Appendix E</i>	Getting Started and Using CentreVu CMS —is for new <i>CentreVu</i> CMS administrators and is presented in a step-by-step sequence with worksheets, a checklist, and procedures to help you through the beginning phase of <i>CentreVu</i> CMS administration.
<i>Glossary</i>	Defines <i>CentreVu</i> CMS terms.

* UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

† Solaris is a trademark of Sun Microsystems, Inc.

Note

For a description of the *CentreVu* CMS Custom Reports subsystem, see the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document.

If you have the Forecast feature of CMS, refer to the *CentreVu™ CMS R3V5 Forecast* (585-215-825) document to learn how to use the system and read the reports.

Conventions Used in This Document

The following conventions are used throughout this document:

- **Related documents**
Identified by the book title, in italics, and the document number if it is a publication. For example, see the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for more information.
- **Courier font**
Designates a word or phrase quoted directly from the *CentreVu* CMS system. For example, the `Report destination:` field.
Also designates an *INFORMIX** table name. For example, the `csplit` table.
- **Courier bold font**
Designates something you type into the system for example, type an `x` next to `Printer`, `Terminal`, or `File`.
- **“Chapter Names”**
Are always in quotes.
- **Italic font**
Highlights references to file names and directories. For example, */cms*.
- **Subsystem References**
Are always initial capitalized. For example, ... set access permissions for *CentreVu* CMS users from the User Permissions subsystem.
- **Window Titles**
Are always initial capitalized.

* INFORMIX is a registered trademark of Informix Software, Inc.

CMS Documents

There are many documents that can help you use the *CentreVu* CMS software to its maximum capability. The most important ones are listed below.

- 585-215-820 — *CentreVu™ CMS R3V5 Administration*
- 585-215-821 — *CentreVu™ CMS R3V5 Real-time and Historical Reports*
- 585-215-822 — *CentreVu™ CMS R3V5 Custom Reports*
- 585-215-823 — *CentreVu™ CMS R3V5 Change Description*
- 585-215-824 — *CentreVu™ CMS R3V5 External Call History Interface*
- 585-215-825 — *CentreVu™ CMS R3V5 Forecast*
- 585-215-826 — *CentreVu™ CMS R3V5 Upgrades and Migrations*
- 585-215-827 — *CentreVu™ CMS R3V5 Sun SPARCserver Installation and Maintenance*
- 585-215-828 — *CentreVu™ CMS R3V5 Connectivity Diagram*
- 585-215-882 — *CentreVu™ CMS R3V5 New System Documentation Kit*
- 585-215-883 — *CentreVu™ CMS R3V5 Upgrade System Documentation Kit*
- 585-215-891 — *CentreVu™ CMS R3V5 Documentation CD-ROM*

Other Related Documents

- 585-215-829 — *CentreVu™ Supervisor Version 5 User Guide*
- 585-215-830 — *CentreVu™ Supervisor Version 5 Installation and Getting Started*
- 585-215-831 — *CentreVu™ Supervisor Version 5 Report Designer*
- 585-215-832 — *CentreVu™ Supervisor and Report Designer Version 5 Change Description*

Other Useful Publications

At times you may need to reference other documents. You need to know where the documentation that was sent with the following is kept:

- Switch
- Terminals
- Printers
- *UNIX* system/*Solaris* system.

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General Information

This guide gives you the information you need to administer the *CentreVu*™ CMS software package. The main sections of this introductory chapter are listed below.

- Description of *CentreVu* CMS and Supporting Hardware—A brief overview of what the CMS software does and how it works, followed by an overview of supporting hardware and software.
- Using *CentreVu* CMS Daily—A description of the four basic uses of *CentreVu* CMS.
- ACD/CMS parameters—Outlines the ACD parameters associated with running the CMS software.
- How *CentreVu* CMS stores and tracks ACD data—Outlines the process CMS uses to store and track call center switch data.
- The *CentreVu* CMS Main Menu and Submenu Items—Lists all CMS main menu and submenu selections, including selections for features that must be purchased separately.
- Screen-Labeled Keys with Menus and Submenus—Lists the Screen-labeled keys with their corresponding menus and submenus.
- Using the Helpline—Provides information on how to access and use the helpline.
- *CentreVu* CMS training—Provides information on training classes for CMS and other related areas.

Description of *CentreVu* CMS and Supporting Hardware

The *CentreVu* CMS is a software product used by businesses and organizations that have a Lucent Technologies telecommunications Enterprise Communications Server (ECS) or switch and receive a large volume of telephone calls that are processed through the Automatic Call Distribution (ACD) feature of the switch. The *CentreVu* CMS collects call-traffic data, formats management reports, and provides an administrative interface to the ACD feature on the switch. See Appendix A for additional information on the ACD feature.

The *CentreVu* CMS administrator can access the *CentreVu* CMS database, generate reports, administer ACD parameters, and also monitor call activities to determine the most efficient service possible for the calling customers.

CentreVu CMS interfaces with the *UNIX*^{*} operating system or the *Solaris*[†] operating system and uses several *UNIX* system/*Solaris* system utilities to communicate with terminals, printers, log errors, and to execute processes. *CentreVu* CMS works with the *INFORMIX*[‡] database management system which provides an interface to the *CentreVu* CMS historical database.

This section outlines:

- Supported hardware platforms
- Required software
- Supported switch releases
- Terminals
- Printers
- *CentreVu* CMS features.

* UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

† Solaris is a trademark of Sun Microsystems, Inc.

‡ INFORMIX is a registered trademark of Informix Software, Inc.

Supported Hardware Platforms

The *CentreVu* CMS is certified to run on the following computers:

- NCR System 3000 Model 3332
 - *Sun*^{*} *SPARCserver*[†] 20
 - *Sun SPARCserver* 10
 - *Sun SPARCserver* 5.
-

Required Software for Intel Platform

The *CentreVu* CMS requires the following software packages to operate properly:

- HSI/S 2.0
 - *INFORMIX*-SE 5.01
 - *UNIX* System V Release 3.2 Version 2.3 operating system (for *CentreVu* CMS running on *Intel*[‡] platforms)
-

Required Software for Sun Platform

The *CentreVu* CMS requires the following software packages to operate properly:

- Solaris 2.4[§]
- SunLink^{**} X.25 Network Interface Software Version 8.01
- 1.0 Network Terminal Server

The Solstice DiskSuite^{††} software package allows the disks of a Sun SPARCserver system to be managed as if they were a single file system. This software is included in all new *CentreVu* CMS R3V5 installations. Upgrades to existing SPARCservers will require the DiskSuite software if more than 5200 agent/skill pairs are necessary.

* Sun is a registered trademark of Sun Microsystems Inc.

† SPARCserver is a trademark of Sun Microsystems Inc.

‡ Intel is a registered trademark of Intel Corp.

§ Solaris is a trademark of Sun Microsystems Inc.

** SunLink is a trademark of Sun Microsystems Inc.

†† Solstice DiskSuite is a trademark of Sun Microsystems Inc.

Supported Switch Releases

The *CentreVu* CMS is certified to run with the following Lucent Technologies switches:

- *DEFINITY* Communications System Generic 2.1 (G2.1) Release 3.2 (QPPCN 555DR) and later.
- *DEFINITY* Communications System Generic 2.2 (G2.2) Release 3.0 and later
- *DEFINITY* Communications System Generic 3i (G3i) Release 11.2.1 and later
- *DEFINITY* Communications System Generic 3r (G3r) Release 6.3 and later
- *DEFINITY* Communications System Generic 3s (G3s) Release 14.2 and later
- *DEFINITY* Communications System Generic 3 Version 2 (G3V2) Load 71 and later
- *DEFINITY* Communications System Generic 3 Version 3 (G3V3)
- *DEFINITY* Communications System Generic 3 Version 4 (G3V4)
- *DEFINITY* Enterprise Communications Server Release 5 (G3V5).

Single and Multiple ACDs

Depending on which computer you have and how the *CentreVu* CMS software was installed, the *CentreVu* CMS software can communicate with up to four ACDs.

References to multiple ACDs in this document refer to multiple-switch configurations. If you have only one switch, you can ignore multiple-ACD considerations.

Terminals

Display terminals connected to your computer can be used to administer the *CentreVu* CMS. The *UNIX* system/*Solaris* system can also be accessed by these terminals. If terminals incompatible with the *CentreVu* CMS are used, if terminals are not properly identified within the *CentreVu* CMS environment, or if terminal options are not properly set up, the terminals may not operate correctly. The following terminals have been approved for use with the *CentreVu* CMS software application:

- 605MT monochrome
- 615MT monochrome
- 615CMT color
- 620MTG multitasking graphics
- 705MT monochrome
- 715BCS monochrome
- 2900/AWTC color
- 4000/SWTC color
- DATASPEED 4425 monochrome.

Note

If the screen on a terminal becomes garbled or confused, redraw the screen by using a **Ctrl** **L** or select the Redraw menu item from the Window Screen Labeled Key (SLK).

See the *CentreVu™ CMS R3V5 Sun® SPARCserver™ Computers Installation and Maintenance* (585-215-827) document (if you have a *Sun*) or the *CMS R3V2 Installation and Maintenance* (585-215-122) document (if you have an *Intel* platform) for information about other terminal requirements and for troubleshooting.

CentreVu CMS running on the Intel platform supports a combination of up to 60 terminals and printers. *CentreVu* CMS running on the Sun SPARCserver 5 platform supports a combination of up to 128 terminals and printers. *CentreVu* CMS running on the SPARCserver 20 platform supports a combination of up to 256 terminals and printers.

Console Terminal

One system terminal must be set up as the console terminal. The console terminal connects directly to the *CentreVu* CMS computer and has root permissions. The console terminal is used to perform functions, such as rebooting the system, that require direct access to the *UNIX* system/*Solaris* system.

Printers

All *CentreVu* CMS sites require at least one system printer. Printers are used to print *CentreVu* CMS historical, forecast, and exception reports; error logs; etc. All printers are named during *CentreVu* CMS installation. The *CentreVu* CMS administrator should know the names of these printers. One printer is identified during *CentreVu* CMS installation as the default printer. When you execute a *CentreVu* CMS print request, the print job is normally routed to the default printer, unless the printer destination has been changed.

The following printers are supported for use in the United States and Canada. Customers outside the United States and Canada, please contact your local Lucent distributor or representative.

- Okidata OL183 parallel
- Okidata OL184 80 column serial dot matrix
- Okidata OL321 120 column serial dot matrix
- Okidata OL810e
- Okidata OL830+ laser
- AT&T 447 band
- AT&T 475 dot matrix
- AT&T 476 dot matrix
- AT&T 477 dot matrix
- AT&T 495 laser printer
- AT&T 570 parallel dot matrix
- AT&T 571 parallel dot matrix
- AT&T 572 serial dot matrix (narrow platen)
- AT&T 573 serial dot matrix (wide platen)
- AT&T 580 parallel dot matrix
- AT&T 583 24-wire dot matrix
- AT&T 593 laser
- AT&T 595 laser
- AT&T 5310 dot matrix
- AT&T 5320 dot matrix
- AT&T 6417 parallel dot matrix.

Note

CentreVu CMS **does not** support a PostScript printer interface.

CentreVu CMS running on the Intel platform supports a combination of up to 60 terminals and printers. *CentreVu* CMS running on the Sun SPARCserver 5 platform supports a combination of up to 128 terminals and printers. *CentreVu* CMS running on the SPARCserver 20 platform supports a combination of up to 256 terminals and printers.

***CentreVu* CMS Features**

This section describes switch administration and optional features available with *CentreVu* CMS.

ACD Administration

The *CentreVu* CMS software provides an administration interface to the switch. From the ACD Administration subsystem of *CentreVu* CMS, you can view or change various ACD-, Vectoring-, and Expert Agent Selection (EAS)-related parameters on the switch, and you can run reports that describe your call center configuration. For example, you can add agents to or remove agents from splits or skills; move extensions between splits; change skill assignments; change trunk group-to-split, trunk group-to-VDN, or VDN-to-vector assignments; start an agent trace and list the agents being traced; and create, copy, and edit call vectors. See Chapter 6 for more information.

The *CentreVu* CMS administrator should coordinate with the switch administrator to be sure that the needed ACD/CMS configuration is understood by both people.

Vectoring

The *CentreVu* CMS software provides an administration interface to the Call Vectoring feature that is available with the ECS and G2 and G3 switches.

The *CentreVu* CMS Vectoring feature allows you to create, copy, and edit call vectors. Call vectors are user-defined, call-processing programs. Call vectors direct calls to specified on-network or off-network destinations, to queues in ACD splits, or to treatments such as music, recorded announcements, forced disconnect, and forced busy.

On the ECS, the switch, and *CentreVu* CMS, the Call Vectoring feature is a separately purchased feature. All *CentreVu* CMS vectoring windows are described in this document. A description of ECS/G3 vectoring is in Appendix B. A description of G2 vectoring is in Appendix C. A description of the Vector Contents window (which you use to create, copy, and edit call vectors) and the allowed values for all the vectoring commands are in Chapter 6.

Expert Agent Selection (EAS)

Expert Agent Selection (EAS) is an optional switch feature that routes incoming calls to the correct agent on the first try. By using ACD queuing and the vector commands *Queue-to-Main* and *Check-Backup*, a call routes to an agent that has the **skills** required to handle that call.

With EAS, call distribution is based on **skill** hunt groups. Calls are queued to skill hunt groups and handled by an agent who is a member of at least one of the skill hunt groups associated with the skills that a caller requires.

The EAS feature requires extensive planning before implementing, and the ECS, G3 and G2.2 switches have different EAS capabilities. See Appendix D for a more in-depth description of EAS.

If you do not have the EAS feature, call distribution is based on **splits**.

Graphics Package

The Graphics package is an optional *CentreVu* CMS feature that uses bar graphs to represent real-time or historical data for various agent, split, vector directory number (VDN), or system activities such as ACD calls, calls abandoned, and average speed of answer. The bar graphs can be customized and are most useful as a quick reference on ACD activity.

The graphics package works on monochrome or color terminals and offers three levels of color/intensity indicators for normal, caution, and warning situations. The reports can be printed in black and white.



You can design reports with Graphical Reports Designer. Reports can not be run from CentreVu Supervisor.

Forecast

Forecast is an optional *CentreVu* CMS feature that allows you to generate forecast reports which predict both future call traffic and the resources required to meet call-handling objectives. Refer to the *CentreVu™ CMS R3V5 Forecast* (585-215-825) document for more information on forecasting.

Using *CentreVu* CMS Daily

CentreVu CMS is divided into several subsystems. Use the subsystems to perform four overall functions:

- Generating reports (real-time, historical, exceptions, and forecast reports) from call data collected from your call center's ACD(s).
- Configuring the splits or assigning skills in your call center.
- Administering the access permissions for *CentreVu* CMS users (usually split/skill supervisors or telecommunications managers). Each *CentreVu* CMS user must have a login ID. Passwords can be assigned to increase security.
- Maintaining the *CentreVu* CMS.

This section outlines where you need to go in the *CentreVu* CMS to perform each of these functions.

Generating Reports

CentreVu CMS collects data from ACD activity and stores it in one of the *CentreVu* CMS databases. The data reflects the activity involving your splits/skills, trunks, trunk groups, agents, agent groups, VDNs, and vectors. You can view this data by accessing the various *CentreVu* CMS reports:

Reports	Subsystem	Administered
Standard Real-Time	Reports	ACD Administration (Split/VDN Call Profile Setup)
Standard Historical	Reports	ACD Administration (Split/VDN Call Profile Setup)
Custom Real-Time	Reports	Custom Report Creation Dictionary (Calculations, Constants)
Custom Historical	Reports	Custom Report Creation Dictionary (Calculations, Constants)
Exceptions	Exceptions	Exceptions
Forecast	Forecast	Forecast

See the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for information on Custom Reports.

The screens in various *CentreVu* CMS subsystems are used to administer data and generate reports. Administering your reports comprises a major portion of the *CentreVu* CMS procedures. The procedures can be categorized as:

- Administering, collection, and storage of report data
- Ordering and scheduling report output
- Assigning names to agent login IDs, splits/skills, trunk groups, ACDs, and Vectors/VDNs (if you have the Vectoring feature) to replace numeric values in reports for more meaningful displays.

Configuring Skills

Skills, extensions, and trunk groups are initially created and assigned at the switch. However, once they have been created, you can control the configuration of your splits in *CentreVu* CMS by performing the following tasks:

If you want to. . .	Select Main Menu Item	Then Submenu Item/ Window
Move agents to other skills.	ACD Administration	Multi-Agent Skill Change, or Change Agent Skills
Set up call forwarding (intraflow) from a skill to other destinations.	ACD Administration	Vector Contents (switches with Call Vectoring)
Set up delay or information announcements for calls queued to a skill.	ACD Administration	Vector Contents (switches with Call Vectoring)
Create special reporting groups — Agent Groups that are reported independently of existing skill assignments.	Dictionary	Agent Group

Configuring Splits

Splits, extensions, and trunk groups are initially created and assigned at the switch. However, once they have been created, you can control the configuration of your splits in *CentreVu* CMS by performing the following tasks:

If you want to. . .	Select Main Menu Item	Then Submenu Item/ Window
Move extensions to other splits.	ACD Administration	Move Extensions Between Splits
Move trunk groups to other splits.	ACD Administration	Trunk Group Assignments
Available on G2.		
Set up call forwarding (intraflow) from a split to other destinations.	ACD Administration	Split Parameters (Generic 2 switches without Call Vectoring) Vector Contents (switches with Call Vectoring)
Set up delay or information announcements for calls queued to a split.	ACD Administration	Split Parameters (switches without Call Vectoring) Vector Contents (switches with Call Vectoring)
Change the number of measured splits.	Maintenance	ACD Status
Available on G2 except G2,2.		
Create special reporting groups — Agent Groups that are reported independently of existing split assignments.	Dictionary	Agent Group

Administering CentreVu CMS Users

CentreVu CMS has a User Permissions subsystem that lets you limit *CentreVu* CMS user access on a need-to-know or need-to-do basis. To control user access, do the following from the User Permissions subsystem:

To Control user access for. . .	Select User Permissions Menu Item
Creating <i>CentreVu</i> CMS login IDs.	User Data
Setting open window limit.	User Data
Setting minimum refresh rate.	User Data
Setting read and write permissions for <i>CentreVu</i> CMS subsystems.	Feature Access
Setting read/write permissions for splits/skills and exceptions.	Split/Skill Access
Setting read/write permissions for trunk groups and exceptions.	Trunk Group Access
Setting read/write permissions for ACD access and exceptions.	ACD Access
Setting read/write permissions for VDN access and exceptions.	VDN Access
Setting read and write permissions for vector access and exceptions.	Vector Access

Maintaining CentreVu CMS

CentreVu CMS provides tools to help you maintain the *CentreVu* CMS, including tools to protect your data and software. Using the Maintenance subsystem or *UNIX* system/*Solaris* system, you can perform the following tasks:

If you want to. . .	Select Main Menu Item	Then Submenu Item/Window
Create backup copies of <i>CentreVu</i> CMS data files.	Maintenance	Back Up Data
Restore lost <i>CentreVu</i> CMS data to the system.	Maintenance	Restore Data
Create backup copies of <i>CentreVu</i> CMS software.	Commands SLK	<i>UNIX</i> system/ <i>Solaris</i> system
Investigate system errors.	Maintenance	Error Log
Connect and disconnect the link to the switch before making configuration changes.	System Setup	Data Collection
Administer a default printer for the CMS server.	Commands SLK	Options
Administer <i>UNIX</i> system printers.	Maintenance	Printer Administration

ACD/CMS Parameters

This section outlines the ACD parameters associated with running the *CentreVu* CMS software. The following information is included:

- Table 1-2—shows call center capacities for Lucent Technologies G3V2, G3V3, G3V4, and G3V5 Switches
- Table 1-3—shows call center capacities for Lucent Technologies G2 and G3V1 Switches
- Table 1-4—shows maximum capacities supported by the ECS and *CentreVu* CMS.

Your switch and *CentreVu* CMS are probably configured differently than the maximum values shown in Table 1-2 and Table 1-3. Make note of these differences. You need to know your particular *CentreVu* CMS values before administering *CentreVu* CMS. Furthermore, if you have multiple ACDs, you cannot exceed the maximum capacities supported by *CentreVu* CMS across all ACDs.

**Table 1-1: Call Center Capacities for Lucent Technologies *DEFINITY*
ECS Release 5**

Item	G3 Intel	G3 Sun
	ECS Rel. 5	ECS Rel. 5
Agents per System		
Agents per Split		
Agent Login IDs		
Skill Groups		
Splits		
Trunk Groups		
Trunks		
Multiple Call Handling -On Request -Forced		
Vectors		
Vector Routing -Tables -Entries per Table		
Vectoring Audio/Music Sources		
VDNs -Total -Measured		
Priority Levels -Without Vectoring -With Vectoring		
Queue Slots per Split		
Queue Slots (split) per System		
Recorded Announcements		
Integrated Announcement Boards		
Rec. Annc. Queue Slots -Integrated Annc. Board -Analog and Aux. Trunk		
Rec. Annc. Calls Connected per Annc. -Integrated Annc. Board -Analog Port -Aux. Trunk		

Table 1-2: Call Center Capacities for Lucent Technologies G3V2, G3V3, and G3V4 Switches

Item	G3vs/s		G3i		G3r	
	V2 & V3 ABP/PBP*	V4 ABP/PBP	V2 & V3	V4	V2 & V3	V4
Agents per System	150	150	500	500	5,200	5,200
Agents per Split	150	150	200	200	999	999
Agent Login IDs	NA/450	NA/450	1,500	1,500	10,000	10,000
Skill Groups	NA/24	NA/24	99	99	255	255
Splits	12/24	12/24	99	99	255	255
Trunk Groups	16/32	16/32	99	99	666	666
Trunks	50/100	50/100	400	400	4,000	4,000
Multiple Call Handling	V2 V3		V2 V3		V2 V3	
-On Request	NO YES	YES	NO YES	YES	NO YES	YES
-Forced	NO NO	YES	NO NO	YES	NO NO	YES
Vectors	NA/48	NA/48	256	256	512	512
Vector Routing						
-Tables	NA	5	NA	10	NA	100
-Entries per Table	NA	100	NA	100	NA	100
Vectoring Audio/Music Sources	1	128 [†]	1	128 [†]	1	256 [†]
VDNs						
-Total	NA/100	NA/100	512	512	20,000	20,000
-Measured	NA/100	NA/100	512	512	2,000	2,000
Priority Levels						
-Without Vectoring	2	2	2	2	2	2
-With Vectoring	4	4	4	4	4	4
Queue Slots per Split	200	200	200	200	999	999
Queue Slots (split) per System	200	200	200	1,000	10,500	10,500
Recorded Announcements	128	128 [†]	128	128 [†]	256	256 [†]
Integrated Announcement Boards	1	1	1	5	1	10
Rec. Annc. Queue Slots						
-Integrated Annc. Board	50	25	50	50	1,000	4,000
-Analog and Aux. Trunk	50	50	150	150	128	1,000
Rec. Annc. Calls Connected per Annc.						
-Integrated Annc. Board	5	25	25	50	255	1,000
-Analog Port	5	50	25	150	128	1,000
-Aux. Trunk	5	50	25	150	255	1,000

* ABP = Advantage Business Package, PBP = Premier Business Package.

† This is the system maximum for recorded announcements and music sources. Each announcement subtracts one from the maximum number of music sources and vice versa.

Table 1-3: Call Center Capacities for Lucent Technologies G2 and G3V1 Switches

Item	G2.1/G2.2 without EACD*	G2.2 with EACD/G2.2 with EAS†	G3vs/s V1 ABP/PBP	G3i V1/V1.1	G3r V1/V1.1
Agents per System	1,024/ 2,048	2,048/ 5,115	150	500	3,000
Agents per Split	1,024	1,024	150	200	999
Skills	NA	NA/600	NA/24	NA	NA
Splits	60	60	12/24	99	99
Trunk Groups	982	982	16/32	99	666
Trunks	6,000	6,000	50/100	400	4,000
Multiple Call Handling -On Request	YES	YES	NO	NO	NO
Vectors	128	511	NA/48	256	512
VDNs	32,000‡	32,000‡	NA/100	500	3,000
Priority Levels -Without Vectoring -With Vectoring	2 4	2 4	2 4	2 4	2 4
Queue Slots per Split	NA§	NA§	200	200	999
Queue Slots (Split) per System	NA§	NA§	200	1,000	6,000/ 10,500
Recorded Announcements -Without Vectoring -With Vectoring	61 84	61 255	128 NA/128	128 128	256 256
Integrated Annc. Boards	NONE	NONE	1	1	1
Rec.Annc. Queue Slots -Integrated Annc. Board -Analog and Aux. Trunk	NA NA§	NA NA§	50 50	50 150	300 300
Rec. Ann. Calls Connected per Annc. -Integrated Annc. Board -Analog Port -Aux. Trunk	255 NA 255	255 NA 255	5 5 5	5 5 5	255 128 255

* EACD = Enhanced ACD features and capabilities.

† EAS = Expert Agent Selection.

‡ On Generic 2, a VDN is an extension number. The limit of 32,000 can only be reached if there are no station extensions on the switch.

§ On Generic 2, queue slots are not administrable. If there is a time slot available, the call can queue to a split or a recorded announcement.

Table 1-4: *CentreVu* CMS Maximum Capacities

Item	G2.2/EAS	G3i V1	G3r V1	G3r V2, V3, V4	ECS Rel 5	Total CMS*
Agent Positions [†]	1,023/5,115	400	1,023	5,200	10000	10,000
Agent Traces Active	25	25	25	25	100	100-Intel 250-Sun
Agent Trace Records	999,999	999,999	999,999	999,999	500,000	500,000
BHCC (ISDN system) [‡]	40,000	7,000	40,000	40,000	40,000	40,000
Call Records (internal)	5,000	5,000	5,000	5,000	5,000	5,000
CWCs [§]	1,999	1,999	1,999	1,999	1,999	1,999
Exception Records	2,000	2,000	2,000	2,000	2,000	2,000
Login IDs	10,000	10,000	10,000	10,000	10,000	10,000
Login/Logout Records	999,999	999,999	999,999	999,999	999,999	999,999
Splits/Skills	60/600	99	99	255	600	1,000
Trunk Groups	255	99	255	666	666	665
Trunks (measured and unmeasured)	4,000	400	4,000	4,000	4,000	4,000
VDNs (measured)	2,000	500	2,000	2,000	2,000	2,000
Vectors	511	256	512	512	512	2,048
Vector Steps (per vector)	15	15	15	32	32	32
Splits/Skills per Agent	na/5	4	4	4	20	20
Skill Levels per Agent	na/na	na	na	2	16	16

* This column represents the maximum capacities supported by a single CentreVu CMS machine, summed over all ACDs (switches the CentreVu CMS is connected to).

† The number of agent/split or agent/skill combinations supported.

‡ BHCC = Busy Hour Call Capacity.

§ This is the maximum number of CWCs (call work codes) that can be stored in the call work code tables on CMS. It is not the maximum number that can be collected in call records.

Measured Extensions Assigned to Multiple Splits (Non-EAS)

On G1 and G3, you can assign an agent extension to as many splits as desired. Multiple split assignments are commonly used in one or both of the following scenarios:

- The customer has agents who log into multiple splits.
- The customer has more than one shift of agents, where the shifts use the same set of phones, but the agents **do not** work in the same splits.

However, each extension-split assignment requires additional storage in *CentreVu* CMS. Therefore, assigning extensions to multiple splits can quickly consume the agent storage capacity on *CentreVu* CMS. For example, on a G3i, if you assign 50 agent extensions to six splits, the switch sends 300 extension-split assignments to *CentreVu* CMS. In this case, *CentreVu* CMS creates space in real-time data storage for 300 agent splits, even if the number of agents logged in is less than 100.

If the maximum number of agent-split configurations *CentreVu* CMS can measure (as defined at installation or in the Data Storage Allocation window) is fewer than the split-extension assignments it receives from the switch, then the link between the switch and *CentreVu* CMS fails to come up. For example, if *CentreVu* CMS allows up to 400 measured agent-split configurations, but the G3i switch has 450 split-extension assignments, then the link fails to come up.

Do not confuse “agent extensions assigned to multiple splits” and “agents logged into multiple splits.” Even if an agent’s extension is assigned to six splits, the agent can be logged into only three splits simultaneously. (With EAS, the agent can be logged into four splits.) *CentreVu* CMS always creates space in real-time data storage for six agent-split pairs (one for each split), even though the agent is not logged into all six splits.

G2 EAS

The default skill assignment is set when the link to *CentreVu* CMS is brought up. As agents add skills, *CentreVu* CMS dynamically allocates additional space.

Measured and Unmeasured Trunks

The entries for trunks in Table 1-4 are measured and unmeasured trunks. A minimum of 100 unmeasured trunks is provided by default. This number of unmeasured trunks is required for:

- Internal calls (intraswitch) to a measured split or agent
- Internal calls to VDNs
- Calls made by agents to internal destinations or using a trunk group that is not measured
- Transfers and conferences until the transfer/conference is complete.

If more than 100 unmeasured trunks are needed for an ACD, the maximum number of measured trunks decreases accordingly. For example, if you have a G3i switch and choose to have 200 unmeasured trunks, 300 trunks are available for measurement.

A switch can actually support many more unmeasured trunks than shown in Table 1-4 — **without affecting the available number of measured trunks**. However, these additional trunks can be used for non-ACD purposes only. Using additional unmeasured trunks for ACD **always reduces** the available number of measured trunks.

The measured trunks available can be determined as follows:

$$t = m - \max(u - 100, 0)$$

Where t is the number of measured trunks, m is the maximum number of measured trunks possible, and u is the number of unmeasured trunks.

For example, *CentreVu* CMS is used to monitor a G3i ACD with 150 unmeasured trunks. The maximum number of measured trunks that the *CentreVu* CMS is able to monitor can be determined as follows:

$$t = 400 - \max(u - 100, 0)$$

$$t = 400 - \max(150 - 100, 0)$$

$$t = 400 - 50$$

$$t = 350$$

For this example, *CentreVu* CMS is only able to monitor 350 measured trunks.

How *CentreVu* CMS Stores and Tracks ACD Data

This section outlines the processes *CentreVu* CMS uses to store and track the switch (ACD) data for your call center. It is meant to give you an overview of how the *CentreVu* CMS system works and where different pieces of data are stored.

How *CentreVu* CMS Stores ACD Data

CentreVu CMS stores the ACD data (Figure 1-1) received from the switch in the real-time and historical databases. Within each of these databases, *CentreVu* CMS stores the specific ACD data for agents, splits/skills, trunks, trunk groups, vectors, and VDNs in separate database tables. Call work codes (CWC) also have separate database tables in the real-time and historical database.

The real-time database includes tables for the **current intrahour interval** data and the **previous intrahour interval** data. An interval can be 15, 30, or 60 minutes (selected in the Storage Intervals window in the System Setup subsystem).

The historical database includes tables for the **intrahour historical**, **daily historical**, **weekly historical**, and **monthly historical** data. *CentreVu* CMS can store intrahour data for 62 days, daily data for 5 years, and weekly/monthly data for 10 years. You can use historical data from your call center to predict future call traffic and future agent and trunk requirements. See the *CentreVu™ CMS R3V5 Forecast* (585-215-825) document for more information.

As *CentreVu* CMS collects the real-time data from the ACD, the data are stored in the current intrahour interval tables (agent, split/skill, trunk, trunk group, vector, and VDN) until the end of the interval. At the end of the current intrahour interval, data is archived to the previous intrahour interval tables and to the intrahour historical tables. At your designated data summarizing time, the historical intrahour data is summarized into daily data. At the end of your designated week (as specified on the System Setup subsystem Storage Intervals window), the daily data is summarized into weekly data. On the first day of a new month, monthly summaries are generated from the daily data for the previous month.

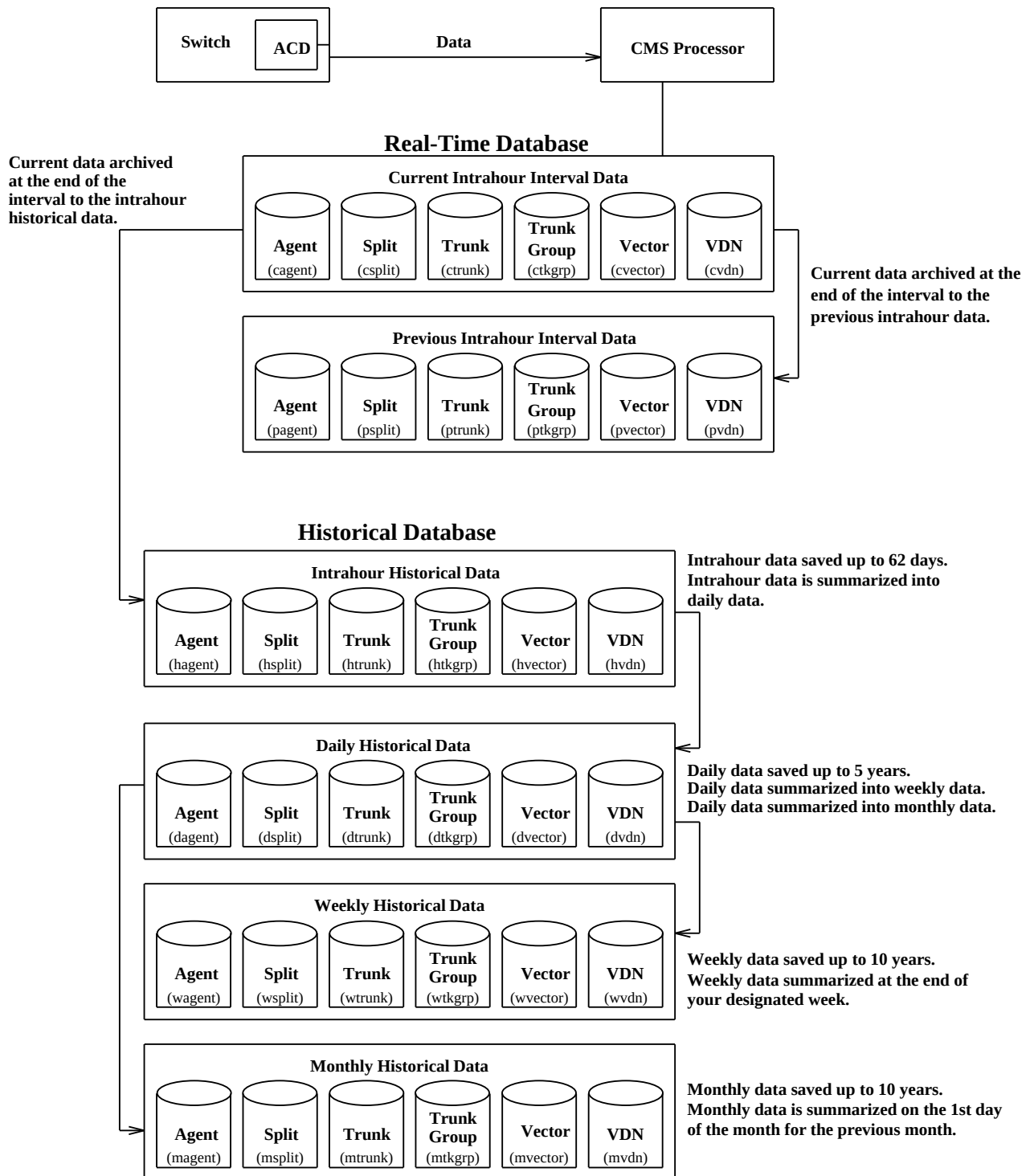
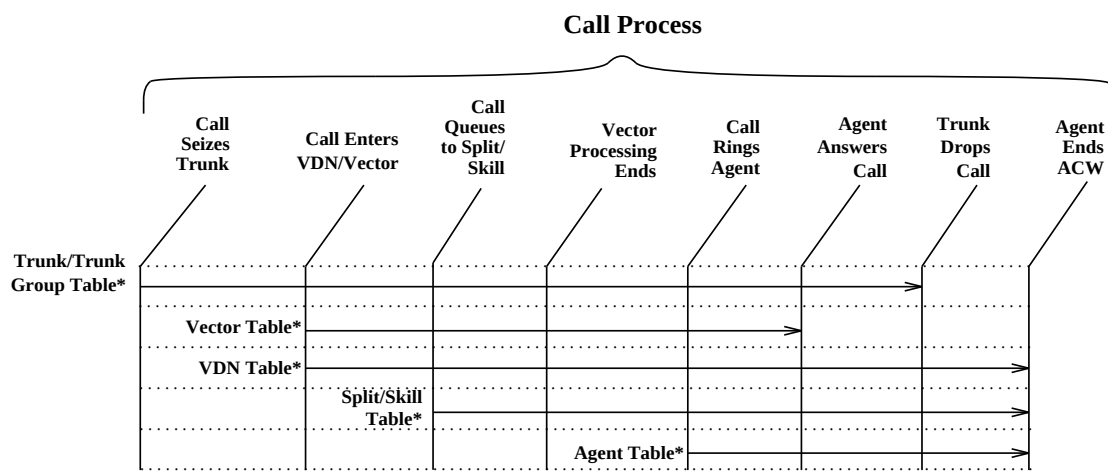


Figure 1-1: How CentreVu CMS Stores Data

How *CentreVu* CMS Tracks ACD Data

Using the data in the real-time and historical databases, *CentreVu* CMS can generate standard reports which allow you to track your call center's activities. *CentreVu* CMS tracks the various agent, split/skill, trunk, trunk group, vector, and VDN activities at different points in the call process. Figure 1-2 shows how *CentreVu* CMS tracks these call activities from the time the call seizes a trunk until an agent ends after call work (ACW) activity.



*The *CentreVu* CMS database table that stores the call data. This is also the point at which *CentreVu* CMS starts collecting call data, and the arrow head is the point at which *CentreVu* CMS stops collecting data. Also, with vectoring, the "Stop" command stops the processing of vector commands. The data are not recorded in the tables until the call and any ACW are complete.

Figure 1-2: How *CentreVu* CMS Tracks a Call

- The agent table starts tracking non-ACD calls when the agent answers or completes dialing.
- The split/skill table stops collecting data when ACW for an ACD call ends, the call leaves the split queue and is forwarded to another destination (for example, intraflow), or the caller abandons.
- The Vector table stops collecting data when the call is sent to an ACD agent, is connected to a station or trunk, is routed to a VDN or vector, or the caller abandons. Time in the vector stops, but the vector tracks the call disposition to determine if the call was answered or abandoned.
- The VDN table stops collecting data when ACW for an ACD call ends, the call is routed to a trunk or VDN, the call is transferred, or the caller abandons.

The CentreVu CMS Main Menu and Submenu Items

Table 1-5 lists the items that appear on the *CentreVu* CMS MainMenu (items in **bold**) and all submenus. The table includes the submenus for the Vectoring, Graphics, and Forecast features of CMS, and the Expert Agent Selection (EAS) feature on the switch. These features must be purchased separately.

Table 1-5: *CentreVu* CMS Main Menu and Submenu Items

Reports	Reports (cont)	Dictionary	Exceptions
<i>Real-time</i>	<i>Historical</i>	Login Identifications	Real-time Exception Log
Split/Skill	Agent	Agent Groups	Historical Reports
Skill Status	Summary	Calculations	Agent Exceptions
Top Agent Status	AUX	Constants	Split/Skill Exceptions
Skill AUX Report	Split/Skill	Database Items	Trunk Group Exceptions
Report	Attendance	Agent String Values	Vector Exceptions
Skill Top Agent Report	Group Attendance	Split/Skill String Values	VDN Exceptions
Call Profile	Login/Logout (Skill)	Trunk String Values	Other Exceptions
Agent Report	Trace	Standard CMS Items	Malicious Call Trace
Agent Group Report	Event Count	Custom Items	Data Collection
Queue/Agent	Group Summary	ACDs	Administration
Queue/Agent Status	Group AUX	Splits/Skills	Agent Exceptions
Queue/Top Agent Status	In/Outbound Call	Trunk Groups	Split/Skill Exceptions
Queue/Agent Summary	Split/Skill	Global Search	Trunk Group Exceptions
Trunk Group Report	Status	Report	Vector Exceptions
Event Count Summary	Reports	AUX Reason Codes	VDN Exceptions
Multi-ACD Report	AUX	Logout Reason Codes	
Multi-ACD Top Report	Summary	Call Work Codes	
Graph	Call Profile	VDNs	
Split/Skill	Outbound	Vectors	
Queue	Forecast Summary		
Split/Skill Call Profile	System		
VDN Call Profile	System		
Vector Report	Multi-ACD		
VDN	Multi-ACD by Split/Skill		
Report	Trunk/Trunk Group		
Call Profile	Trunk		
Skill Preference Report	Trunk Group		
	Trunk Group Summary		
	Busy Hour		
	Graph		
	Split/Skill Call Profile		
	Split/Skill Service Level		
	Split/Skill Avg Speed Answer		
	VDN Call Profile		
	VDN Service Level		
	Call Work Code		
	VDN		
	Status		
	Report		
	Skill Preference Report		
	Call Profile		
	Busy Hour		
	Multi-ACD Flow		
	Vector		
	Call Records		

Table 1-5: CentreVu CMS Main Menu and Submenu Items

ACD Administration

G2

- Move Agent Extensions
- Trunk Group Assignments
- Split Parameters (No Vectoring)
- Split/Skill Call Profile Setup
- Activate Agent Trace
- List Agents Traced
- Configuration Reports
 - Split Members
 - Trunk Group Members
 - Vector
- Call Work Codes
- VDN Assignments
- Change VDN Skill Preferences
- VDN Assignments
- Change VDN Skill Preferences
- VDN Call Profile Setup
- Vector Contents
- Split References in Vectors
(Not available with EAS)

G3V2 EAS

- Change Agent Skills
- Trunk Group Assignments
- Split/Skill Call Profile Setup
- Activate Agent Trace
- List Agents Traced
- Configuration Reports
 - Trunk Group Members
 - Vector
- Call Work Codes
- VDN Assignments
- Change VDN Skill Preferences
(EAS only)
- VDN Call Profile Setup
- Vector Contents

ACD Administration (cont)

G3V4 EAS

- Multi-Agent Skill Change
- Change Agent Skills
- Trunk Group Assignments
- Split/Skill Call Profile Setup
- Activate Agent Trace
- List Agents Traced
- Configuration Reports
 - Trunk Group Members
 - Vector
- Call Work Codes
- VDN Assignments
- Change VDN Skill Preferences
(EAS only)
- VDN Call Profile Setup
- Vector Contents

G3V5 EAS

- Multi-Agent Skill Change
- Trunk Group Assignments
- Change Agent Skills
- Split/Skill Call Profile Setup
- Activate Agent Trace
- List Agents Traced
- Configuration Reports
 - AUX Agent
 - List Agent Skills
 - Trunk Group Members
 - Vector
- Call Work Codes
- VDN Assignments
- Change VDN Skill Preferences
(EAS only)
- VDN Call Profile Setup
- Vector Contents

Custom Reports

- Real-time
- Historical
- Edit Report

User Permissions

- User Data
- Feature Access
- Main Menu Addition Access
- Split/Skill Access
- Trunk Group Access
- ACD Access
- Vector Access
- VDN Access

System Setup

- Switch Setup
- Pseudo-ACD Setup
- Load Pseudo-ACD Data
- Data Storage Allocation
- Free Space Allocation
- Storage Intervals
- Main Menu Addition
- CMS Status
- Data Collection
- Data Summarizing
- R3 Migrate Data
- R2 Migrate Data

Maintenance

- Back Up Data
- Restore Data
- Backup/Restore Devices
- Printer Administration
- Connection Status
- ACD Status
- Archiving Status
- Error Log Report

Screen-Labeled Keys with Menus and Submenus

Screen-labeled keys (SLKs) are the first eight function keys on your keyboard. Each key corresponds to one of the screen labels (Help, Window, Commands, Keep, Exit, Current, Scroll, and MainMenu) at the bottom of your *CentreVu* CMS terminal screen. For example, (F1) = Help and (F5) = Exit.

Figure 1-3 shows the *CentreVu* CMS SLKs (shaded) with their corresponding menus and submenus. Chapter 2 includes descriptions of each SLK. The **Exit**, **Current**, **Scroll** and **MainMenu** SLKs do not have menus.

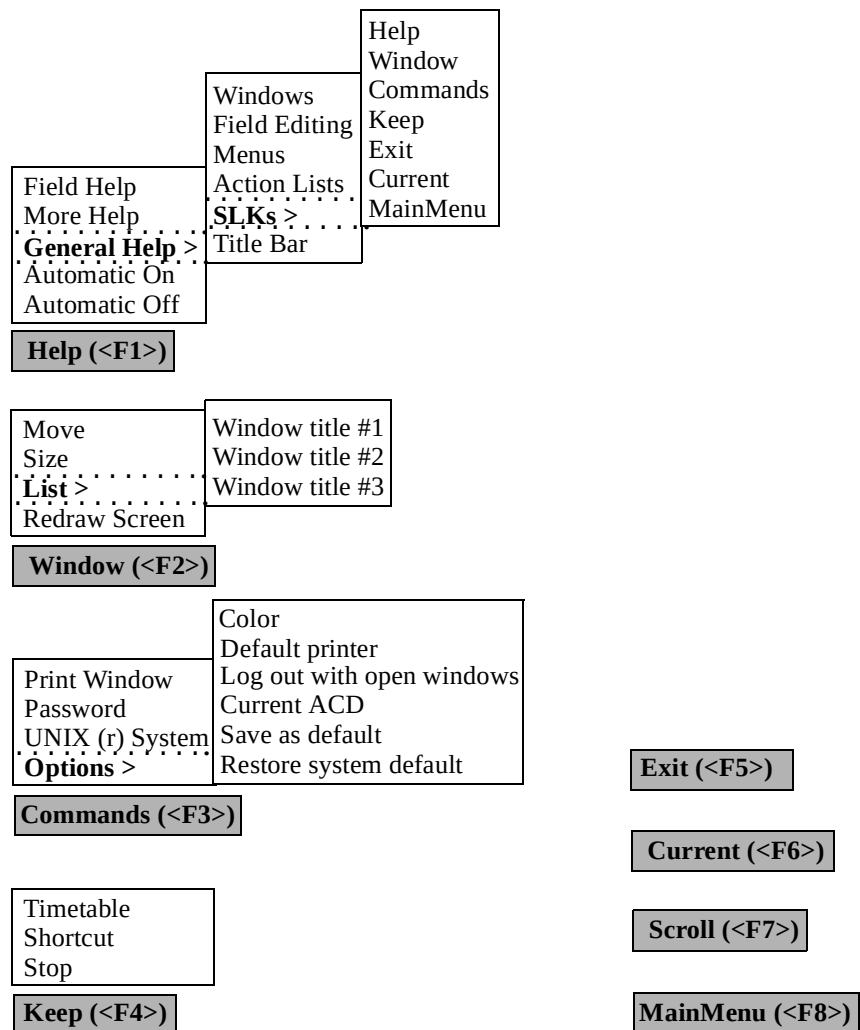


Figure 1-3: SLK Menus and Submenus

Using the Helpline

If you have a problem with the *CentreVu* CMS software, call the **Lucent Technologies ACD/CMS Helpline on 1-800-344-9670** to report the problem and obtain a trouble ticket number. Customers outside the United States and Canada, please contact your local Lucent distributor or representative.

The ACD/CMS Helpline number is staffed by trained *CentreVu* CMS engineers located at the Technical Service Center (TSC). The engineers at the TSC will try to fix the problem in a timely manner. If they cannot fix the problem, they will escalate the problem to a higher level of customer support.

When you call the Helpline, make sure to report the problem as a “*CentreVu* Call Management System R3V5 problem,” and be prepared to give the following information:

- Your full name, your organization, and a phone number where a Lucent Technologies representative can contact you concerning the trouble
- The Installation Location (IL) number
This is a 10-digit number from a Lucent Technologies database that helps service personnel look up the details of your *CentreVu* CMS installation and environment
- A description of the problem
- The type of service contract your organization has with Lucent Technologies, if any.

If your system is not covered by warranty or service contract, you will be invoiced for the work done to troubleshoot your system. Service contracts can be for business hours only or 24-hours a day, 7 days a week, or they can provide a dedicated technician for your installation.

CentreVu CMS Training Classes

Training for two persons on *CentreVu* CMS administration and custom reports is included with the price of the *CentreVu* CMS software. (Price is not for each ACD). Your Lucent Technologies Project Manager should call 1-800-255-8988 to schedule the appropriate classes for you. For training outside the United States, contact your local Lucent distributor or representative.

The available *CentreVu* CMS training courses are shown in Table 1-6. The Price Elements Codes (PECs) shown should be used only to enroll additional persons (those who are **not** the two persons to receive training at no additional charge).

Table 1-6: *CentreVu* CMS Training

Course Number	PEC	Course Name	Description
BTC112H	1426-011	<i>CentreVu</i> CMS Administration	A 4.5-day course that provides training on the tasks required to set up a <i>CentreVu</i> CMS call center application, administer <i>CentreVu</i> CMS, interpret reports on ACD activity, and use the Vectoring and Forecast features.
BTC113H	1426-012	<i>CentreVu</i> CMS Administration (with G3 EAS)	A 4.5-day course that provides training on the tasks required to set up a <i>CentreVu</i> CMS call center application with the G3V4 switch and the EAS feature, administer <i>CentreVu</i> CMS, interpret reports on ACD activity, and use the Vectoring and Forecast features.
BTC114H	1426-13	<i>CentreVu</i> CMS Administration (with G2.2 EAS)	A 4.5-day course that provides training on the tasks required to set up a <i>CentreVu</i> CMS call center application with the G2.2 switch and the EAS feature, administer <i>CentreVu</i> CMS, interpret reports on ACD activity, and use the Vectoring and Forecast features.
BTC115H	1426-014	<i>CentreVu</i> CMS Custom Reports	A 3-day course that provides training on the tasks required to develop <i>CentreVu</i> CMS custom reports.
BTC125H	1462-021	<i>CentreVu</i> Supervisor for Split Supervisors	A 2-day course that provides training on split supervisor tasks using <i>CentreVu</i> Supervisor, a Graphical User Interface.
BTC202H	1462-027	<i>CentreVu</i> Report Designer	A 2-day course that provides training on the report designer interface.

The *CentreVu* CMS Graphics feature is covered in all of the Administration courses, even if you have not purchased the feature. Also, the last lesson (the last half-day) in the Administration course covers the Forecast feature. If you have not purchased the Forecast feature, you do not have to attend this session.

Upgrade Training

If you are upgrading to *CentreVu* CMS, or if you have purchased EAS, you should have also received an EAS self-paced training package, "Designing a Call Center with EAS."

If you are upgrading within Release 3, or from Release 2 CMS, you should have also received the *CentreVu™ CMS R3V5 Change Description* (585-215-823) document which covers the differences between Release 2 3B CMS, R3 CMS, R3V2 CMS, *CentreVu* CMS R3V4, and *CentreVu* CMS R3V5.

If you are upgrading from Release 2 CMS, you are entitled to enroll in one of the Administration courses listed in Table 1-6.

Other *CentreVu* CMS-Related Training

You may benefit by taking additional courses (available at additional charges) in the following subject areas:

- *UNIX* system/*Solaris* system
- *INFORMIX*
- Traffic Theory/Data Analysis
- Host Computer Administration
- Switch Administration.

You automatically receive the following Individualized Learning Programs (booklets) after one of your call center's employees is enrolled in the *CentreVu* CMS Administration course:

- ACD Fundamentals
- Vectoring and EAS Basics.

Chapter 2

User Basics

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General Information

This chapter explains the *CentreVu*™ CMS (Call Management System) user interface and gives you the information you need to complete any *CentreVu* CMS action. The following topics are covered in this chapter:

- Logging Into CentreVu CMS
- Logging Out of CentreVu CMS
- Terms you need to know to use *CentreVu* CMS
- The *CentreVu* CMS user interface
- Moving through *CentreVu* CMS
- Menu information and selection procedures
- User window information and associated procedures
- Changing your password
- Changing the text and background colors on your terminal
- Modifying your default printer
- Selecting the current ACD (Automatic Call Distribution) (real or pseudo)
- Saving and restoring default values on input windows.

Note

It is important that you become familiar with the information in this chapter.

Terminology

Before you begin using *CentreVu* CMS, you need to know the meaning of several terms. These terms are also defined in the *Glossary*.

Acknowledgment	A window that requires you to confirm an action or to acknowledge a system message (for example, a warning or an error). This window cannot be moved, sized, or scrolled and disappears only when you confirm the message. This window does not count in the user window count.
Action List	A menu in the upper right corner of most user windows. The menu lists the actions available for that particular user window (for example, add, modify, delete, etc.). You select an action after entering necessary data in the user window.
Current Window	The user window in which you are currently working.
Input Field	An input field is an area on a user window into which a <i>CentreVu</i> CMS user enters one or more valid field values. For example, the valid values for the input field <code>Split</code> are integers from 1 through 600 (Generic 3 ECS) and split names that have been assigned in the Dictionary subsystem.
Main Menu	The first menu that appears after you log into <i>CentreVu</i> CMS.
Menu	A list of items from which you can select. A menu cannot be moved or sized and does not count in the user window count.
Messages	Temporary windows used for displaying information like “field help” and syntactical field errors. Message windows cannot be moved, sized, or scrolled and do not count in the user window count. Message windows are automatically removed when you correct the error or move to the next field.

Name (Synonym) Fields	Fields in which you may enter a name (synonym) that has been assigned in the Dictionary subsystem (for example, the name of an agent).
Open Window	A user window remains open until you close it with the Exit Screen-Labeled Key (SLK). A window becomes the current window when it initially appears on the screen or when you make it the current window by using the Current SLK.
Primary Window	The first window opened in response to a menu selection. A primary window may also generate another user window (secondary window). A primary window can be moved, sized, or scrolled, and counts in the window count.
Screen-Labeled Key (SLK)	The first eight function keys at the top of your keyboard that correspond to the screen labels at the bottom of your terminal screen. The screen labels indicate the function that each key performs.
Secondary Window	A user window that is generated from a primary window. Secondary windows can be moved, sized, or scrolled but do not count in the user window count.
Submenu	A submenu appears whenever you select an item from the MainMenu that ends with a greater than (>) sign.
User Window	A window you can move, size, or scroll. It may contain input fields, reports, or help information.
Window	Any rectangle on your screen that encloses a menu, data entry fields, reports, or messages.
Window Count	The number of primary windows that can be open at any one time.

Logging Into *CentreVu* CMS

CentreVu CMS is a menu-driven system that operates through a series of interactive windows. To use *CentreVu* CMS, you must first log in.

Note If *CentreVu* CMS is in the single-user mode and you are the “single user,” when you log out you must wait at least 10 seconds before trying to log in again.

To log into the *CentreVu* CMS, perform the following procedure.

1. Turn your terminal on, or press the **Return** key if your terminal is already on. → *The login prompt displays.*

Note When you turn the terminal on, it may display a string of characters (for example, a string of x's) instead of the login prompt.

If this happens, press the **Break** key, then press the **Return** key, and then press the **Break** key again. Continue to alternately press these two keys until the login prompt appears.

2. Enter your *CentreVu* CMS login ID. → *The Password prompt displays.*
3. Enter your *CentreVu* CMS password (it does not display on the screen). → *The Enter your terminal type prompt displays.*

Note Your password must contain at least six characters. Also, at least one character must be a number or special character, and at least two characters must be alphabetic.

4. Enter your terminal type. → *The CentreVu CMS MainMenu displays*
→ *If a \$ or # displays instead of the terminal type prompt, type cms and then press the Return key.*

Note If your system is in working order, but your login attempt was unsuccessful, you may have entered your user ID or password incorrectly. Try logging in again.

Logging Out of *CentreVu* CMS

To log out of *CentreVu* CMS, perform the following procedure.

1. Select **Logout** on the MainMenu, and then press the **Return** key. → *All windows are closed, and the login prompt displays. If you asked to be notified of open windows when logging out and you have open windows, you receive an Acknowledgment message that allows you to remain logged in until you close all open windows.*

Note The prompt displays a \$ or a # when logging out if a \$ or a # was displayed when logging in. In that case, enter exit to display the login prompt.

CentreVu CMS Screen Layout

Figure 2-1 shows what the *CentreVu* CMS screen looks like when you first log into the *CentreVu* CMS. The title bar and screen-labeled keys are always present on-screen, no matter how many windows you open.

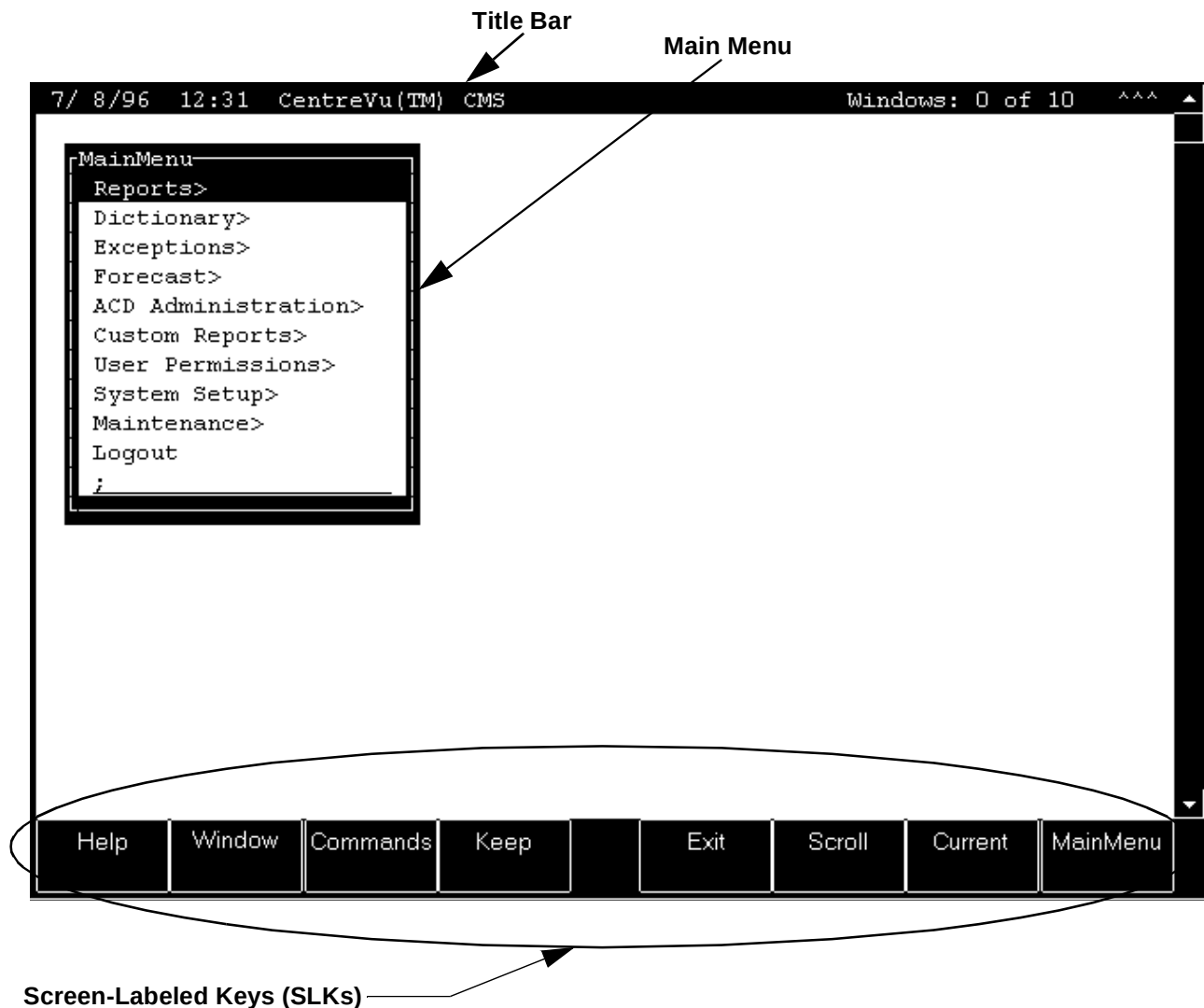
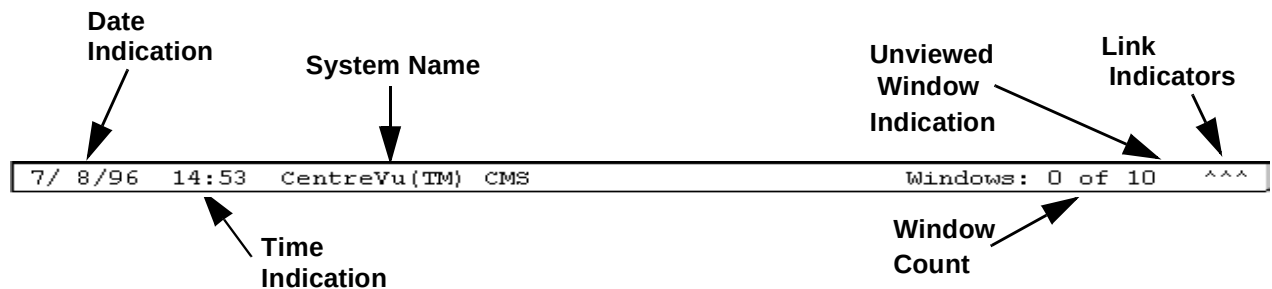


Figure 2-1: *CentreVu* CMS Screen Layout

Note Although the SLKs are always displayed at the bottom of your screen, the window examples in this book typically do not show the SLKs.

Title Bar

The title bar is a single line at the top of the screen. Windows cannot overlap the title bar.



The title bar displays the following information:

Date	The current month, day, and year, as set on the master ACD.
Time	<i>CentreVu</i> CMS time, which is the master ACD date and time. The time is updated every 60 seconds.
System Name	This is the <i>CentreVu</i> Call Management System.
Window Count	The first number is the number of primary windows currently open, and the second number is the maximum number of primary windows you are allowed to open.
Note There is a maximum limit of 12 open primary windows per <i>CentreVu</i> CMS user at one time. The <i>CentreVu</i> CMS administrator can limit the number of windows open at any one time (one to 12) for each user. See Chapter 7, "User Permissions", for more information.	
Unviewed Window Indication	An asterisk appears in the window count area any time a newly opened window is not made current using the Current SLK or Window SLK—List menu item. The asterisk serves as a reminder that the new window has arrived but may not be visible.
Link Indicator	Each carrot (^ —the link is up, or v —the link is down) indicates the status for each ACD link.

Menu Characteristics

Figure 2-2 shows the *CentreVu* CMS MainMenu with a sample submenu, and a sample SLK menu and submenu. The following bulleted items list menu and submenu characteristics.

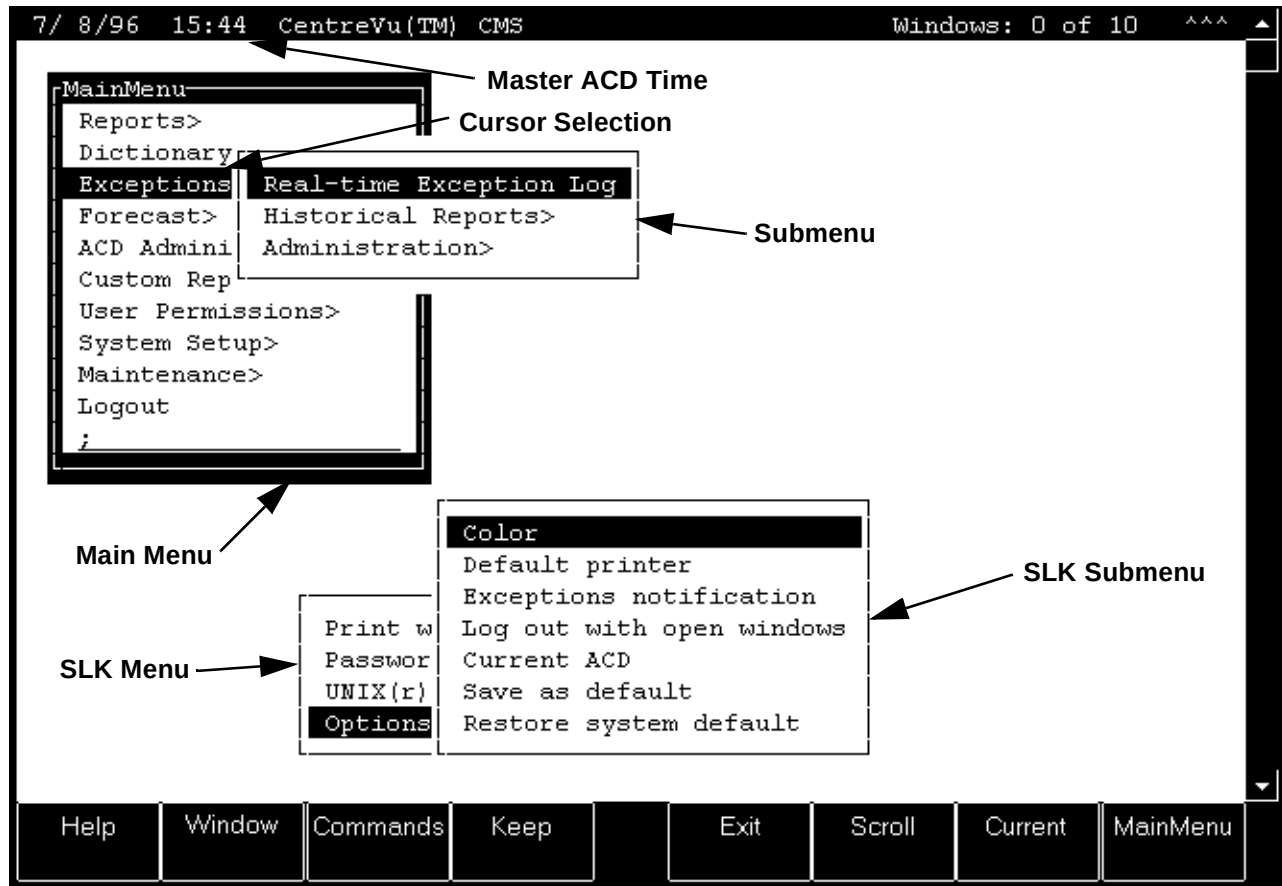


Figure 2-2: CentreVu CMS Menus and Submenus

- Menu and submenu item selection is not case-sensitive. Either uppercase or lowercase letters are acceptable.
- Menus and submenus guide you through *CentreVu* CMS. They cannot be moved or resized.
- A ">" after any menu item indicates that a submenu will display when the menu item is selected.
- Menus and SLK menu items bring up primary windows. These windows act as any other user window and count in the user window count.
- For a given user, if read permission (see Chapter 7, "User Permissions") to a particular subsystem is turned off, that subsystem is not shown on the menu or submenu.

- Menu and submenu items that do not apply (for example, Color if you are using a monochrome terminal) are grayed out. The cursor skips these choices.

Default Choice for All Menu Items

When you first log into the *CentreVu* CMS, the top entry of any menu/submenu (including SLK menus/submenus) is the default choice.

After you make a menu/submenu item selection, that selection then becomes the default choice. The last selection you made from any menu/submenu (including SLK menus) remains the default choice for the particular menu/submenu until you log out of the *CentreVu* CMS or make another selection. The *CentreVu* CMS always returns to your last selection during the current login session.

Choosing a Menu Item

There are three ways you can choose a menu item:

- Enter the first unique letter(s) of the menu item (for example, **D** for Dictionary). Either uppercase or lowercase letters work.

Note

The letter search starts from the next menu item and goes down the menu. If necessary, the search wraps around to the top of the menu and continues down until a match is found. If no match is found, a beep sounds. The cursor's position indicates which menu item is being selected.

- Use the up or down arrow keys to move the highlight bar to the desired menu item. Once the menu item is highlighted, press the **Return** key to select it.

If your keyboard does not have arrow keys, use the **Tab** key to move forward and down, and the **Shift** + **Tab** key combination to move backward and up.

Note

Shift followed by a plus sign and another key indicates that you hold down the **Shift** key and press the other key simultaneously.

- Combine the use of letters and arrows.
-

When Menus Disappear

When a user window is selected from any menu/submenu/SLK menu, all menus disappear.

If you press the **Current** SLK when you are in any menu, all the menus disappear and the previous window in the window stack becomes the current window.

If you return to the MainMenu using the **MainMenu** SLK, all submenus and SLK menus disappear.

User Windows

Figure 2-3 shows an example of a user window. Windows with data entry fields, reports, and some help windows are user windows. You can move, size, and scroll all user windows (unless there is nothing to scroll).

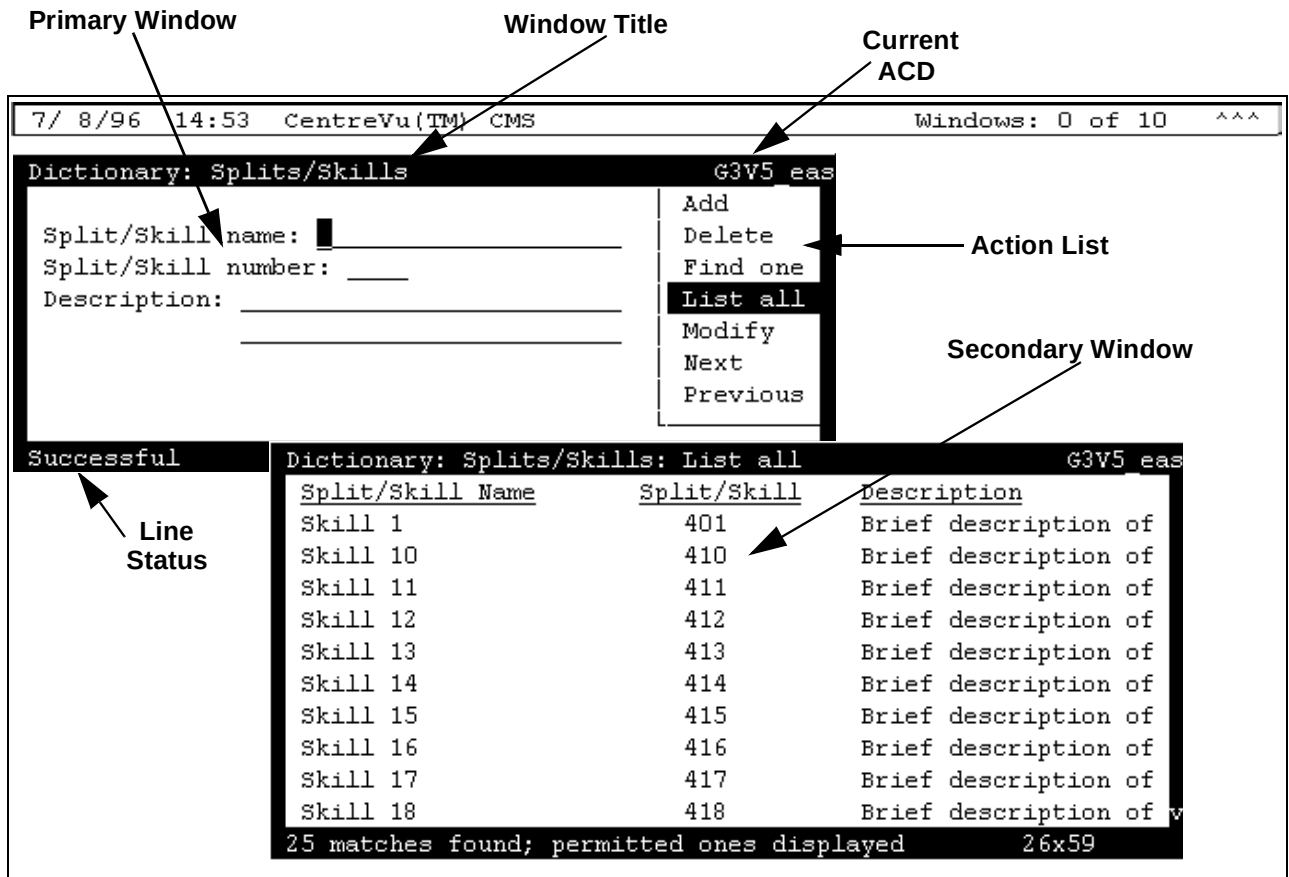


Figure 2-3: User Windows

A user window that appears after you select a menu item is called a **primary window**. Primary windows are used to complete or specify a task and may generate another user window (secondary window). Primary windows can be moved, sized, or scrolled and count in the user window count.

Secondary windows are generated by a primary window. They display the data requested from the primary window or allow additional tasks to be completed. Secondary windows can be moved, sized, or scrolled but do **not** count in the user window count.

User Window Count

Each *CentreVu* CMS user can have up to 12 *open* primary windows at any one time.

The actual number of open windows permitted for each *CentreVu* CMS user is administered through User Permissions (see Chapter 7, “User Permissions”), and the window count is displayed on the title bar. If you attempt to exceed your user window limit, an error message appears. You are not able to open more windows until you close at least one window.

The number of open user windows directly affects processor resources.

Window Title

The window title indicates which *CentreVu* CMS subsystem you are in and the ACD to which the window applies. If you make a change in the window, the change applies only to the ACD indicated in the window title unless the title shows *All ACDs* or you entered an ACD number in a field in the window.

Closing User Windows

User windows remain open until closed by the **Exit** SLK or by logging out. The *Copy* windows in Timetable and Shortcut and some custom report user windows close automatically when you select an action item that completes a task. See Chapter 3, “Timetable and Shortcut,” for information on timetables and shortcuts, and the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for the custom report user windows.

Messages

In conjunction with user windows, message windows display information such as field help and error messages. Message windows are display-only windows and cannot be moved, sized, or scrolled. They do not count in the user window count, and are never the *current* user window.

Messages you receive because of an error automatically disappear when the error is corrected and you leave the input field. If you exit the user window, the error message also disappears.

Acknowledgment Windows

Acknowledgment windows appear in conjunction with user windows to inform you that what you are currently doing is potentially hazardous or to notify you of errors you have made. Some Acknowledgment windows require that you respond to a yes or no question before you can proceed with any other work in the current window, while other windows require that you press the **Return** key.

Moving Through *CentreVu* CMS

Before you can select any menu item or enter anything in an input window, you need to know how to use your keyboard to move through *CentreVu* CMS.

Special Keys

Down Arrow ↓	The down arrow moves the cursor down to the next menu item (SLK menus included), action list selection, or input field. The down arrow is also used to page or scroll output (like reports). See the Paging and Scrolling Data section of this chapter.
Up Arrow ↑	The up arrow moves the cursor to the previous menu item (SLK menus included), action list selection, or input field. The up arrow is also used to page or scroll output (like reports). See the Paging and Scrolling Data section of this chapter.
Right Arrow →	The right arrow moves the cursor one position to the right in an input field and stops when you reach the end of the field. When you use the right arrow to move through a field, no information is changed. The right arrow can also select menu items and can be used to scroll horizontally.
Left Arrow ←	The left arrow moves the cursor one position to the left in an input field and stops when you reach the beginning of the field. When you use the left arrow to move through a field, no information is changed. The left arrow can also exit submenus and can be used to scroll horizontally.
Tab/Shift Tab	The Tab key moves the cursor to the next field or menu item. Holding down the Shift key and pressing the Tab key moves the cursor to the previous field or menu item.
Enter/Return	The Enter or Return key indicates that you want <i>CentreVu</i> CMS to act on what you entered or selected.

Back Space The **Ctrl** + **H** key combination or the **Back Space** key erases the previous character in an input field (destructive backward space).

Note **Ctrl** followed by a plus sign and a letter key indicates that you hold down the **Ctrl** key and press the letter key simultaneously.

Space Bar The Space Bar erases the next character in an input field.

Paging and Scrolling Data

For output-only windows (like reports or list all windows), the arrow keys can be used to page or scroll the contents of the window. Using the arrows by themselves shows the next page of data in the direction of the arrow. For example, pressing the down arrow in a **List All** window shows the next page of data. You can scroll the data by preceding the arrows with a number indicating how many lines or columns to scroll. For example, entering **10** followed by the down arrow scrolls the window contents by ten lines. See Chapter 3, “Timetable and Shortcut,” for details about scroll key operations for input and output windows.

Note The arrows (<, >, ^, v) display in the lower right corner of the window’s border to indicate in which direction more data exists.

Status Line and Status Messages

The status line on a user window shows the condition for a given process and could display any one of the following messages:

Working	Displays until the action is complete. The window is locked during this time.
Successful	Displays when an action completes without errors.
Error	Displays when a syntactical error is found in a field. An error message with field help also appears.
Failed	Displays when an action request cannot complete. An Acknowledgment window explains why the request cannot complete.

Does not exist	Displays when a record you are trying to modify, delete, or search for is <i>not</i> found in the database.
Already exists	Displays when a record you are trying to add <i>is</i> found in the database. This message also displays when you attempt to add a range of items, some of which exist and some of which do not. The ones that do not exist are added to the database; the ones that exist are left unchanged.
Cancelled	Displays when you cancel a potentially destructive action in an Acknowledgment window.
Inserting	Displays when a field is being edited using the Ctrl + E key combination to insert characters.
N matches found	Displays when a Find one action completes.
N matches found; permitted ones displayed	Indicates the number of matches found by the List all and serves as a reminder that you may not have permission to view or modify all matches found.
No permission	Displays if you do not have read permission for the match or matches found in the search. This could occur on the first match found doing a Find one or on any match when stepping through the Find one matches doing a Next or Previous .
See status window	Displays when a status window appears to further explain the condition.

Common Rules for Field Entry

When entering data into input window fields, the following rules apply.

- Names** (synonyms):
- Must begin with an alphabetic character. Characters are case sensitive.
 - Can be 1 to 20 characters. Letters, numbers, underscores (_), blanks, commas (,), periods (.), and plus signs (+) are accepted.
- Field descriptions:**
- Can be 1 to 50 characters. All keyboard characters are allowed *except* backslash (\), grave accent (`), tilde (~), double quotes ("), pipe symbol (|), asterisk (*), and question mark (?).
- Number:**
- Ranges can be entered by placing a hyphen between entries (for example, Login IDs: 1000-1053).
A numeric range cannot include more than 1000 numbers (for example, 1000-1999, 1050-2049, 2000-2999 are valid, but 1000-2000 is not valid).
 - Lists can be entered by placing a semicolon between entries (for example, Login IDs: 1002;1100;2022).

A combination of ranges and lists can also be used.

Pattern searching:

- Is allowed for string fields.
 - If you know your field entry begins with the letters “ac,” you can enter **ac*** in the field. The asterisk (*) matches any numbers or characters that follow the “ac.” You could have several matches, no match, or only one match. If you enter only an * in a field, you get a list of all entries in the *CentreVu* CMS database for that particular field.
 - A question mark (?) matches a single number or character in the search pattern. So, if you typed **ac?** in a field, the resulting matches would be items in the *CentreVu* CMS database that begin with “ac” and have three letters (for example, acd).
 - You can also leave the field blank to get a list of all entries in the *CentreVu* CMS database for that particular field.
- Is not allowed in name (synonym) fields, except in the Dictionary subsystem. For example, in a report input window with a Split(s)/Skill(s): field, you can enter a list of splits/skills or a range of numeric splits/skills, but you cannot enter **Sa***.

Field Editing

The following list describes various methods you may use to edit a field.

- Use the arrow keys and overwrite the text.

Note Overtyping is the default edit mode.

- Use the **Back Space** key or the **Ctrl** + **H** key combination and overwrite the text.
- Use the Space Bar and overwrite the text.
- Use the **Ctrl** + **E** key combination to insert text.

Note To stop inserting, press the **Ctrl** + **E** key combination again, or use the arrow or the **Tab** key to go to the next field.

- Use the **Ctrl** + **X** key combination to erase the area between the cursor and the end of the field.
- Use the **Ctrl** + **Y** key combination to erase the entire field.
- Use the **Ctrl** + **Z** key combination to erase all field inputs and clear the status line in the window. The cursor returns to the first field in the input window.
- Use the **Ctrl** + **C** key combination or the left arrow to move from the action list back to an input field without selecting an action list item.

Moving and sizing can also be canceled using the **Ctrl** + **C** key combination prior to completing the move or resizing. You can also cancel block-oriented activities in custom reports. See the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for any custom report information.

Searching for an Entry in the *CentreVu* CMS Database

Most action lists contain the items **Find one** or **List all**. **Find one** searches the database and displays the first occurrence that matches the information you entered in the data entry fields. You can then use **Next** and **Previous** to view all the other matches, one at a time. **List all** searches the database and brings up a secondary window that displays all occurrences that match the information you entered in the data entry fields.

Note

CentreVu CMS searches the database for anything that matches any entries left in the input fields on the window. For example, if you want a list of all splits and leave the name of split 1 in the name field on the window, only split 1 displays in the List All window. To view all entries in the database for all input fields in a window, use the **Ctrl** + **Z** key combination to clear all fields, then select **Find one** or **List all** from the action list.

Pattern searching is allowed for string fields. If you know that the field value begins with the letters “ac,” you can enter **ac*** in the field. The asterisk (*) matches any number of characters that follow the “ac.” You could have several matches, no match, or only one match. If you enter only an “*” in the field, you get a list of everything that matches that particular field. (You could also leave the fields blank and get the same results.)

Note

You cannot enter patterns in name (synonym) fields, except in the Dictionary subsystem. Name fields end with an “(s)”. For example, in a report input window with a **Split(s)/Skill(s):** field, you can enter a list of splits or a range of numeric splits, but you cannot enter **Sa***. Also, the numeric range cannot contain more than 1000 numbers (for example, 1000-1999, 1050-2049, 2000-2999).

Action Lists

Action lists display the different actions that can be performed in user windows and appear in menu format in the upper-right corner of user windows. Action lists are always visible; you cannot size or scroll a window to cover its action list.

Note

The action list procedures in this section apply to all subsystem windows within *CentreVu* CMS. A few windows have unique action items, and the procedures for those action items are described with those particular windows.

The default entry in any action list is the top entry when you first enter the window. After you select an action, that action becomes the default selection until you close the window or make another selection.

Action List Entries

From an action list, you are able to do the following if the item appears in the action list:

Add	Adds the inputs on the current user window as an entry to the database. If an entry already exists, the entry is not added to the database and <code>Already exists</code> displays on the status line.
Delete	Removes the entry on the current user window from the database. If the database entry does not exist, <code>Does not exist</code> displays on the status line.
Find one	Searches the database for entries that match the values in the fields. The values for first match found are displayed in the fields. The total number of matches found is displayed on the status line. The matches are displayed in numeric order. You can also search on strings (that is, if you know your field entry begins with the letters "ac," you can enter <code>ac*</code> in a field and select <code>Find one</code>). You cannot use an <code>*</code> or <code>?</code> in synonym fields marked with (s); for example, <code>Split(s)</code>.
Get contents	Provides access to the members of an agent group and the tasks associated with a timetable or shortcut.

List all Brings up a secondary user window that lists all the entries that matched the current field values. The secondary window becomes the current user window. To make a change to the search fields, you must go back to the primary (original) window. You must select **List all** again to see the change.

Note

If you want a listing of everything pertinent to the window, clear or leave all fields blank and select **List all**.

Modify Changes the database entry on the current user window to reflect the new data entered on the user window. If the database entry does not exist, **Does not exist** displays on the status line.

Note

If you leave any fields blank with **Modify**, those blank fields blank out (nullify) the data currently in the database. Therefore, you should select **Find one** first to view the data, and then select **Modify** after changing the values you wanted to change.

Next Displays the next match found after doing a **Find one**.

Note

Next only works with **Find one**, **Next**, and **Previous**. Otherwise the selection is grayed out.

Previous Displays the previous match found after doing a **Find one**.

Note

Previous only works with **Find one**, **Next**, and **Previous**. Otherwise the selection is grayed out.

Run Runs the process (for example, a report) for the current window.

Making an Action List Selection

To make an action list selection, perform the following procedure.

1. After completing all required fields, press the **Return** key. → *The cursor moves to the action list.*
2. Type the first character of the action list item you want (for example, the **D** key for Delet e), or press the down or up arrow keys to move the cursor to the item.
3. Once the appropriate action is highlighted, press the **Return** key to make your action list selection. → *Any appropriate status line message appears, and the cursor returns to the previous location in the input window.*

Note

Use the left arrow or the **Ctrl** + **C** key combination to return to the input window at any time without selecting an action-list item.

Adding an Entry to the *CentreVu* CMS Database

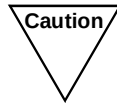
To add an entry to the *CentreVu* CMS database, perform the following procedure.

1. Type the first unique character(s) of the entry (for example, the **D** key for Dictionary) to make a selection from the *CentreVu* CMS MainMenu or subsystem menu, and then press the **Return** key. → *The appropriate user window displays.*
2. Enter the appropriate data in the input field(s) on the user window.
3. Press the **A** key (or use the arrow keys) to move your cursor to **Add** on the action list, and then press the **Return** key. → *Add is highlighted, and Working appears on the status line until the action completes. Then Successful appears to indicate that the information has been added to the CentreVu CMS database.*

Note If the entry you are trying to add already exists, **Already exists** appears on the status line, and the Add fails.

Deleting an Entry from the CentreVu CMS Database

To delete an entry from the CentreVu CMS database, perform the following procedure.



If you use pattern searching to delete records from the database, an Acknowledgment window displays warning you that more than one record may be deleted if you continue. The window allows you to cancel the delete action.

1. Type the first unique character(s) of the entry (for example, the **D** key for Dictionary) to make a selection from the *CentreVu* CMS MainMenu or subsystem menu, and then press the **Return** key. → *The appropriate user window displays.*

2. Enter the appropriate data in the input fields on the user window.



You may want to select **Find one** from the action list to ensure you are deleting the right entry.

3. Press the **D** key to move your cursor to **Delete** on the action list, and then press the **Return** key. → *Working displays on the status line until the action completes. Then Successful displays to indicate that the information has been deleted from the CentreVu CMS database.*



If the entry you are trying to delete does not exist, **Does not exist** appears on the status line.

Finding One CentreVu CMS Database Entry

To find one *CentreVu* CMS database entry, perform the following procedure.

Note

With **Find one**, *CentreVu* CMS searches for records that match the data entered in all fields. Fields left blank match everything in the database. You can also use ranges for numerical fields and the asterisk (*) or question mark (?) for name/text fields. Numeric ranges cannot be more than 1000 numbers (for example, 1000-1999, 1050-2049, 2000-2999).

1. Type the first unique character(s) of the entry (for example, the **D** key for Dictionary) to make a selection from the *CentreVu* CMS MainMenu or subsystem menu, and then press the **Return** key. → *The appropriate user window displays.*
2. Enter the appropriate data in the input fields on the user window.
3. Press the **F** key to move your cursor to **Find one** on the action list, and then press the **Return** key. → *Working displays on the status line until the action completes. Data from the first entry that matched displays in the fields, and the total number of entries that matched are displayed on the status line.*

Finding the Next *CentreVu* CMS Database Entry

To find the next *CentreVu* CMS database entry, perform the following procedure.

Note

`Next` is grayed out until you select `Find one`.

If selecting `Find one` results in only one match, `Next` is still grayed out.

If the last match is displayed and you select `Next` again, `Next` starts over with the first match found.

1. After selecting and completing `Find one`, `Next` or `Previous`, press the `Return` key. → *The cursor moves to the action list.*
2. Press the `N` key to move your cursor to `Next` on the action list, and then press the `Return` key. → *Working appears on the status line until the action completes; then Successful appears. The next match found displays in the input fields.*

Finding the Previous CentreVu CMS Database Entry

To find the previous *CentreVu* CMS database entry, perform the following procedure.

Note Previous is grayed out until you select Find one.
If selecting Find one results in only one match, Previous is still grayed out.

If the first match is displayed and you select Previous, Previous displays the last match that was found.

1. Press the **Return** key after selecting and completing Find one, Next, or Previous. → *The cursor moves to the action list.*
2. Press the **P** key to move your cursor to Previous on the action list, and then press the **Return** key. → *Working appears on the status line until the action completes; then Successful appears. The previous match found displays in the input fields.*

Listing All CentreVu CMS Database Entries

To list all *CentreVu* CMS database entries, perform the following procedure.

Note

With `List all`, *CentreVu* CMS searches for records that match the data entered in all fields. Fields left blank match everything in the database. You can also use ranges for numerical fields and the asterisk (*) or question mark (?) for name/text fields. Numeric ranges cannot be more than 1000 numbers (for example, 1000-1999, 1050-2049, 2000-2999).

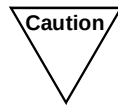
1. Type the first unique character(s) → *The appropriate user window displays.*
of the entry (for example, the `D` key for Dictionary) to make a selection from the *CentreVu* CMS MainMenu or subsystem menu, and then press the `Return` key.
2. Enter the appropriate data in the input fields on the user window.
3. Press the `L` key to move your cursor to `List all` on the action list, and then press the `Return` key. → *List all is highlighted, and Working appears on the status line until the action completes; then Successful appears. A secondary user window displays with the List all information*

Note

To make a change to any entry that displays in the `List all` window, you must go back to the primary (original) window, make the change, and then select `List all` again to see the change.

Modifying a CentreVu CMS Entry

To modify a *CentreVu* CMS entry, perform the following procedure.



With **Find one**, *CentreVu* CMS searches for records that match the data entered in all fields. With searching, fields left blank match everything in the database table. You can also use ranges for numerical fields and the asterisk (*) or question mark (?) for name/text fields. Numeric ranges cannot be more than 1000 numbers (for example, 1000-1999, 1050-2049).

1. Type the first unique character(s) of the entry (for example, the **D** key for Dictionary) to make a selection from the *CentreVu* CMS MainMenu or subsystem menu, and then press the **Return** key. → *The appropriate user window displays.*
2. Enter the appropriate data in the input fields on the user window.
3. Select **Find one** to view the database entry that you want to modify, and then press the **Return** key. → *Current window values appear.*
4. Modify the desired fields, and then press the **Return** key.
5. Press the **M** key to move your cursor to **Modify** on the action list, and then press the **Return** key. → *Modify is highlighted, and Working appears on the status line until the action completes. Then Successful appears to indicate that the information has been modified in the CentreVu CMS database.*



Any fields left blank while using **Modify** will nullify the data currently in the database. Select **Find one** to view the database entry and change the appropriate fields, and then select **Modify** from the action list. Records that exist within the specified range are modified. If the entry you are trying to modify does not exist, **Does not exist** displays on the status line. In that case, you must add the entry.

Running a Report

To run a report, perform the following procedure.

1. Make a selection from the appropriate menu(s). → *The report input window displays.*
2. Enter appropriate data in the report input window. → *The cursor moves to action list.*
3. Press the **Return** key again. → *Working appears on the status line until the report displays on screen. When the report displays, the input window disappears. It reappears when you exit the report window.*

Printing Historical Reports

You can select your report destination and run the report from within the report input window shown in Figure 2-4.

If you select `file` as the report destination, the report is stored in a *UNIX*^{*} system/*Solaris*[†] system file. *CentreVu* CMS users typically do not have access to the *UNIX* system/*Solaris* system and will not be able to access report data stored in those files.

Note

The only time you need to select your report destination is when you want to change your destination from what is shown in the report input window. The default destination, `Terminal`, displays the report on your terminal screen.

The screenshot shows a terminal window titled "7/ 8/96 14:53 CentreVu(TM) CMS" with a status bar "Windows: 0 of 10 ^^^". Inside the terminal, a menu is displayed with the following text:

```
Rpts: Hist: VDM: Status Input      G3V5_eas
VDM: _____
Date: _____
Report destination (Select one):
<x> Terminal
<_> Printer, Printer name: _____
<_> File,
    File name: _____
```

A "Run" button is visible to the right of the "VDM:" field.

Figure 2-4: Report Input Alternate Report Destinations

* UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

† Solaris is a trademark of Sun Microsystems, Inc.

To print a historical report, perform the following procedure.

1. Make a selection from the Historical reports menu. → *The report input window displays.*
2. Enter the appropriate data in the report input window. If you want to change the report destination, enter an **x** next to terminal, printer, or file. *The cursor moves to the action list.*

Note

If you select **Printer** and want to use a printer other than your default printer, enter the printer name. If you select **File**, enter a file name. If the file name already exists, the existing file is overwritten with the new report data. The file is placed in your home directory in the *UNIX* system (*/usr/<your login ID>*) or *Solaris* system (*/export/home/<your login ID>*) for the *UNIX* system) unless you specify a full path name to another directory.

3. Press the **Return** key again to select the **Run** action item to print the report, display the report, or send the report to a file. → *Working appears on the status line until the action completes.*

Note

For printed reports, **Successful** means the report has been queued for the printer. It does not mean the report has printed.

Screen-Labeled Keys

The first eight function keys (F1, F2, F3, ..., F8) at the top of your keyboard correspond to the screen labels at the bottom of your terminal screen as shown in Figure 2-5.



Figure 2-5: *CentreVu* CMS Screen-Labeled Keys

The screen labels indicate the function each key performs in *CentreVu* CMS. The following paragraphs describe each screen-labeled key (SLK) and its menus.

Help SLK

The **Help** SLK accesses the Help SLK menu, as shown in Figure 2-6. This menu allows access to *CentreVu* CMS on-line user information. For example, if you need help with a particular input field, you can select **Field Help** and get information pertaining to that particular field. If you need help on the use of a window, select **More help** to get the information.

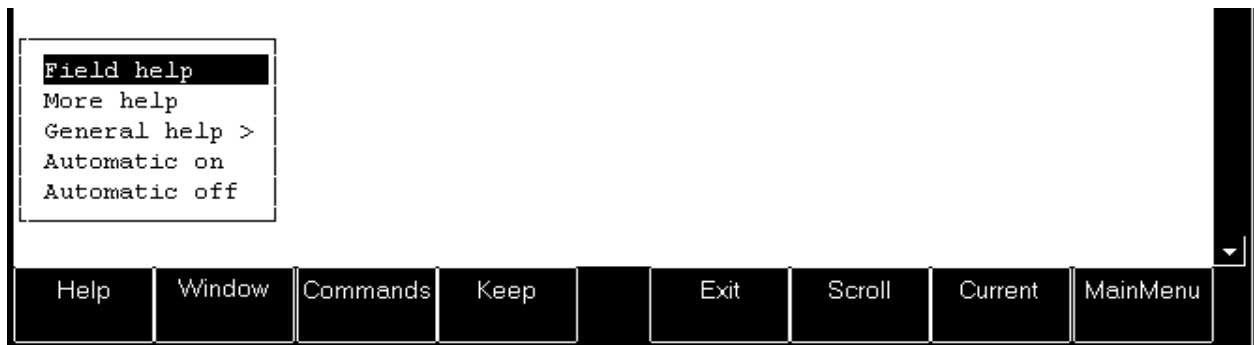


Figure 2-6: Help SLK Menu

Field Help

Field help messages are available for all data-input fields and menu items. These messages give a short description of the field and its allowed values. Field help messages remain on the screen until you leave that field. If you go to another window without leaving the field, the help message remains and could be overlapped by the new current window.

More Help

More help displays a user window containing expanded information about the current primary user window or menu selection. More help is for **primary** windows only, not output windows (such as list all windows).

General Help

The General Help submenu shown in Figure 2-7 gives information about the *CentreVu* CMS user interface itself, such as how to make a menu selection, how to access an action list, what SLKs do, and so on. The information is displayed in user windows.



Figure 2-7: Help SLK — General Help Submenu

Windows	Gives you general information about windows.
Field Editing	Gives you the commands for inserting, overtyping, and clearing field contents using the cursor, and how to move between fields.
Menus	Gives general information on menus. Descriptions include making a menu selection and getting out of a menu.
Action Lists	Tells you how to make selections in an action list.
Title Bar	Gives you information about the content and location of the <i>CentreVu</i> CMS title bar. This information includes the time of day, number of open windows, exception count, etc. See the Title Bar section earlier in this chapter.
SLKs >	Tells you how to select Screen-Labeled Keys (SLKs) and briefly what each SLK does.

Automatic On

Automatic on provides a Field help message for each field or menu item as you step through *CentreVu* CMS. Automatic help messages display for every field/menu until you select the Automatic off mode.

Automatic Off

Automatic off turns the Automatic on help messages off.

Window SLK

Use the **Window** SLK to list, move, and size windows. Figure 2-8 shows the **Window** SLK menu.



Figure 2-8: Window SLK Menu

Move

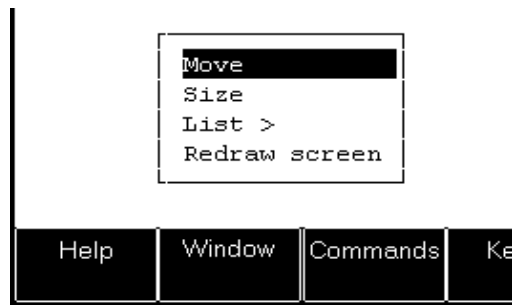
This menu item allows you to move the current window. You cannot move a window off the screen. When moving a window:

- **Ctrl** + **C** cancels a move.
- You can precede the arrow keys with a number that represents the number of rows or columns to move. For example, 7 ↓ moves seven rows down.
- You must complete or cancel a move before you can use any other SLK. If you do select an SLK before completing the move, a beep sounds. Press the **Return** key to complete the move.

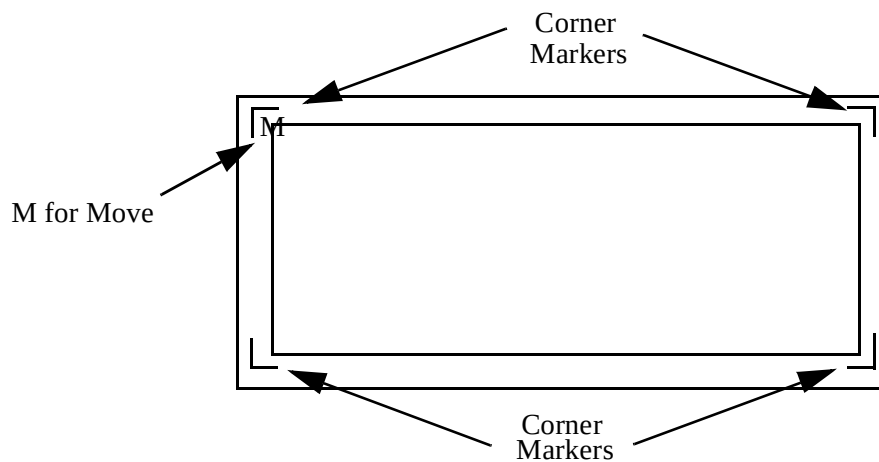
Moving a Window

To move an open window, perform the following procedure.

1. Press the **Window** SLK. → *The Window menu displays.*



2. Select **Move**, and press the **Return** key. → *Corner markers appear on the window.*



3. Using numbers and/or the up, down, left, or right arrows, move the corner markers to where you want them, and press the **Return** key. → *The window moves to the corner markers. Corner markers disappear, and the cursor returns to the window.*

Size

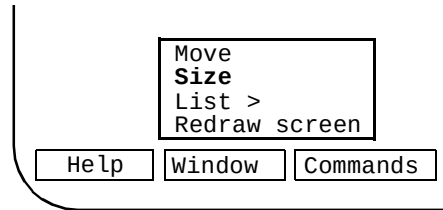
This menu item allows you to change the size of the current window. You can size report windows so that you see only what you are interested in. When sizing a window:

- You cannot size a window smaller than its action list, and you cannot size an input window smaller than the default size.
- The **Ctrl** + **C** key combination cancels a size change and returns a resized window to its original size.
- The upper-left corner of any window is fixed. You can only size by moving the lower-right corner down-and-right or up-and-left.
- You can precede the arrow keys with a number that represents the number of rows or columns to move (for example, 7 ↓ moves seven rows down).
- You must complete or cancel sizing a window before you can use any other SLK. If you select an SLK before completing the size, a beep sounds. Press the **Return** key to complete sizing the window.

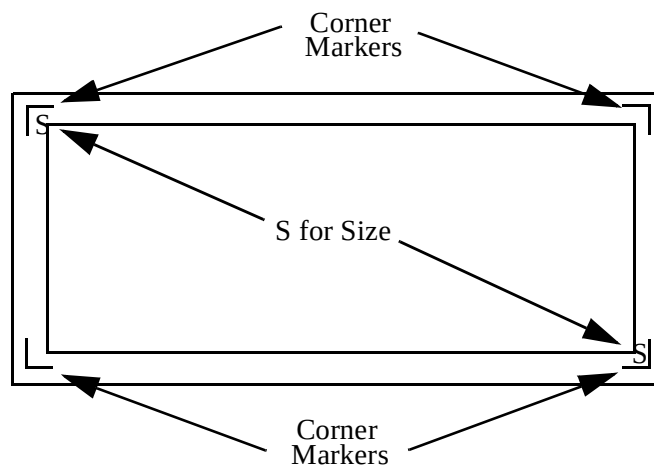
Sizing a Window

To size the current window, perform the following procedure.

1. Press the **Window** SLK. → *The Window menu displays.*



2. Select **Size**, and press the **Return** key. → *Corner markers appear on the window.*



3. Using numbers and/or the up, down, left, or right arrows, move the bottom-right corner marker to the desired position, and press the **Return** key. → *The window moves to the corner marker. The corner marker disappears, and the cursor returns to the window.*

List >

The List submenu displays a menu of titles for all the active windows. You can select any one of the active window titles from the list and that window becomes the current window. When using the List option:

- If no windows are open and you select List, an Acknowledgment window displays No menu items. This submenu is currently empty. Press the **Return** key to continue.
- An asterisk (*) next to the window title indicates a window that has not yet been viewed. For example, if you are in the process of opening a window and you press the **MainMenu** SLK and select another window, the first window would not be viewed. It would be listed with an asterisk next to the title in the List menu. You can make any window with an asterisk current by selecting the appropriate menu item, or by using the **Current** SLK and rotating through the windows.

Listing Open Windows

To list open windows, perform the following procedure.

1. Press the **Window** SLK. → *The Window menu displays.*
2. Select List, and then press the **Return** key. → *A menu displays listing all your open windows.*
3. From the List menu, choose the window title you want, and then press the **Return** key, or press the **Exit** SLK to close the menu without selecting a window. → *The selected window displays as the current user window.*

Redraw screen

This SLK menu item automatically redraws your terminal's screen. You can do this at any time to refresh the screen. The **Ctrl** + **L** key combination can also be used to redraw the screen.

Note

If a *UNIX* system/*Solaris* system error message displays on the *CentreVu* CMS console terminal, or if the screen becomes garbled, redraw the screen.

Commands SLK

Figure 2-9 shows the **Commands** SLK menu.

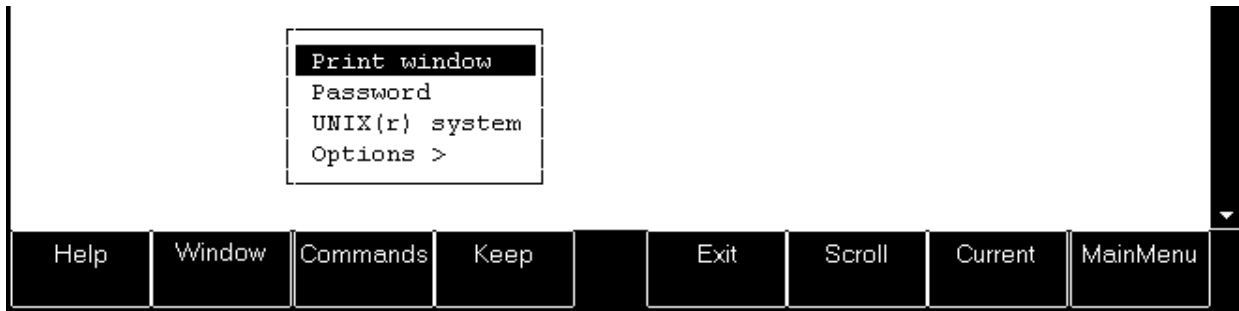


Figure 2-9: Commands SLK Menu

The commands menu selections allow you to accomplish the following actions:

- Print the current window
- Create and change passwords
- Access the *UNIX* system/*Solaris* system



Access to the *UNIX* system/*Solaris* system requires feature permission. *CentreVu* CMS users typically do not have permission to access the *UNIX* system/*Solaris* system. The *UNIX (r) system* selection is accessible only if permissions are granted. Otherwise the selection is grayed out and can not be selected. See Chapter 7, "User Permissions," for more information on granting user permissions.

- Change options
 - Select color and video attributes
 - Select a default printer
 - Change your ACD (real or pseudo)
 - Save your own default values
 - Restore the system default values
 - Set the type of exception notification you receive
 - Receive a warning when you log off with open windows.

Print Window

This SLK menu item allows you to print the text and data (not the action list) of the current user window, including multiple pages if applicable. You cannot print any menu.

To use the Print Window SLK, you must have a printer assigned to your user ID. Use the User Permissions: User Data window to assign a printer.

Note

All user IDs (except `cms` and some `cms`svc) must have a printer assigned.

If a print window does not work, go to the Maintenance: Printer Administration window and select `Modify` for the printer name.

If your printer jams, you may have to resubmit print requests that did not print. Laser printers usually hold the print jobs in the printer queue, but dot matrix printers usually do not.

Printing an Open Window

To print an open window, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select `Print Window`, and then press the **Return** key. → *An appropriate message displays on the status line when the print job has been queued.*

Password

This SLK menu item allows you to enter and change your password.

Note Changing a forgotten password for a *CentreVu* CMS user must be done by the *CentreVu* CMS administrator from the *UNIX* system/*Solaris* system. See Chapter 10, “*UNIX* system/*Solaris* System — Changing a *CentreVu* CMS User’s Password,” for the procedures.

Note For system security, passwords are recommended for all *CentreVu* CMS user login IDs.

Passwords have the following restrictions:

- A password must have at least six characters.
- A password must have at least one number or special character and at least two alphabetic characters.
- When changing a password, the new password must be at least three characters different from your previous password.

Changing Your Password

To change your password, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select Password, and then press the **Return** key. → *The Password screen displays.*
3. Follow the directions on the screen.

UNIX System/ Solaris System

Note

Access to the *UNIX* system/*Solaris* system is accessible on your **Commands** SLK menu only if permissions are granted. If you do not have UNIX (r) system feature permission the selection is grayed out.

This menu item allows you to access the *UNIX* system/*Solaris* operating system. When you access the *UNIX* system/*Solaris* system, all *CentreVu* CMS-related information (windows, SLKs, and title bar) disappears, and a blank screen with a *UNIX* system/*Solaris* prompt (usually a dollar sign) appears. For the procedures, see Chapter 10, “*UNIX* system/*Solaris* System — Accessing the *UNIX* system/*Solaris* System.”

Note

To return to *CentreVu* CMS from the *UNIX* system/*Solaris* system, type `exit` or the **Ctrl** + **D** key combination.

Options >

From the Options submenu, shown in Figure 2-10, you can perform any of the actions described in the following paragraphs.

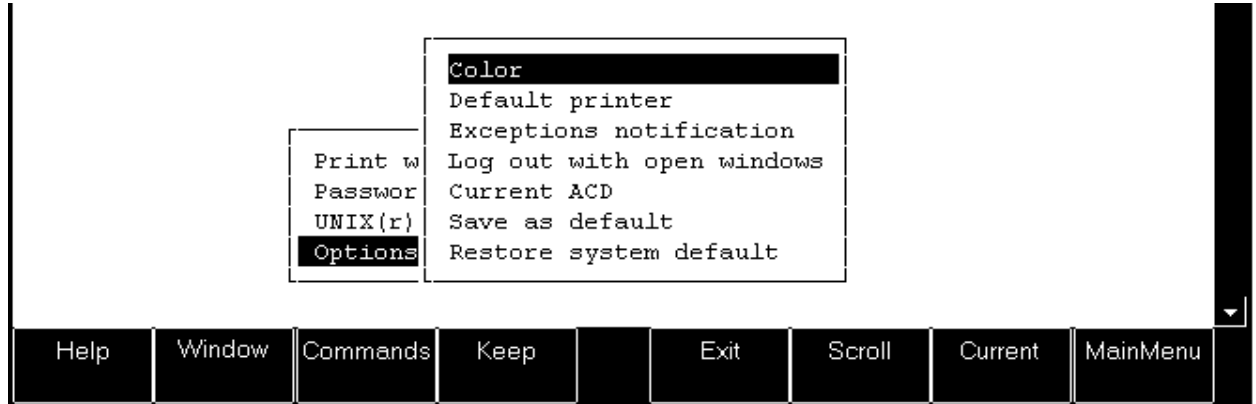


Figure 2-10: Options Menu

Color

Use the Color menu selection to change the colors of such things as menus, windows, window borders, and the title bar. This menu item is available only if you have a color terminal.

A change affects windows or menus opened **after** the color change. The only way to change the colors on all windows (including those open before the color change) is to log out and then log back in again. You then have to reopen all previously opened windows to see the new colors.

Default Colors

Table 2-1 shows the *CentreVu* CMS default colors,

Table 2-1: *CentreVu* CMS Default Colors

Window Object	Text Color	Background Color
Menus and user windows	white	black
Current window border	black	cyan
Other window borders	black	white
Title bar	black	blue
Exceptions on real-time reports	black	yellow
Grayed-out items	cyan	black

Note The Screen Painter window in the Custom Reports subsystem has its own, predefined colors. You cannot modify the colors for the Screen Painter window.

Graphics Package Default Colors

The intensity/color of the bars on a graph report depends on whether the data has crossed either the *first* or *second* threshold limit. For monochrome terminals, three levels of intensity are used to display the bars. For color terminals, you can select your own colors to display the three levels of intensity. Use the three levels of intensity/color to designate **Normal**, **Caution**, and **Warning** conditions. Table 2-2 shows the three intensity and color levels.

Table 2-2: *CentreVu* CMS Intensity and Color Levels

Condition	Monochrome Terminal	Color Terminal	Default Colors
Normal	Dim reverse video	First color choice	Green
Caution (<i>First threshold</i>)	Bold reverse video	Second color choice	Yellow
Warning (<i>Second threshold</i>)	Blink reverse video	Third color choice	Red

Modifying Your Colors

To modify your colors, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select Options, and then press the **Return** key. → *The Options menu displays.*
3. Select Color, and then press the **Return** key. → *The Color window displays.*

Color		G3V5_eas			
Input number from the legend below		Modify			
		Text	Background		
Menus and user windows:	8	1			
Current window border:	1	4			
Other window borders:	1	8			
Title bar:	1	2			
Grayed-out menu items:	4	1			
For graphics users:					
Normal bar: 3		1	2	3	4
Exceeds first threshold: 7					
Exceeds second threshold: 5		5	6	7	8

4. Select your text and background colors for each field by entering the legend number in the text and background fields, and then pressing the **Return** key. → *Cursor moves to the action list.*
5. Select Modify, and then press the **Return** key. → *Modify is highlighted, and Working appears on the status line until the action completes; then Successful appears.*
6. Press the **Exit** key to return to another open window. → *The Color window disappears.*

Note

To restore the system default colors at any time, open this window and select the Restore system default option from the **Commands** SLK Options menu, and then select Modify from the color window.

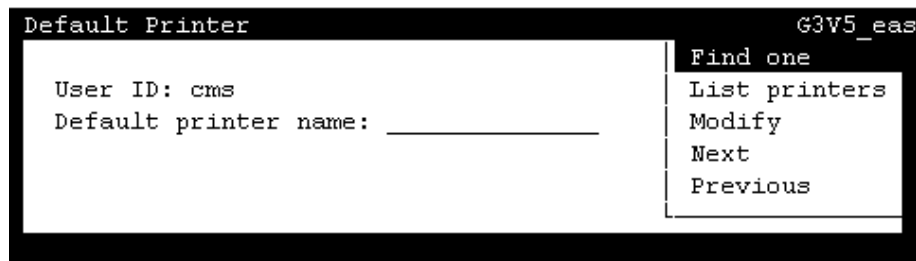
Default printer

At any time, you can change your default printer name and see a list of all available printers. A default printer was assigned when your *CentreVu* CMS login was added (see Chapter 7, “User Permissions — User Data,” for more information). Your default printer name is displayed in the Default printer name: field.

See Chapter 9, “Maintenance — Printer Administration,” if you want to change the paper length, paper width, or font.

To modify your default printer, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select Options >, and then press the **Return** key. → *The Options menu displays.*
3. Select Default printer, and then press the **Return** key. → *The Default Printer window displays.*



```
Default Printer                                     G3V5_eas
+-----+
| User ID: cms                                     |
| Default printer name: _____                 |
|                                                  |
| Find one                                         |
| List printers                                   |
| Modify                                          |
| Next                                           |
| Previous                                       |
+-----+
```

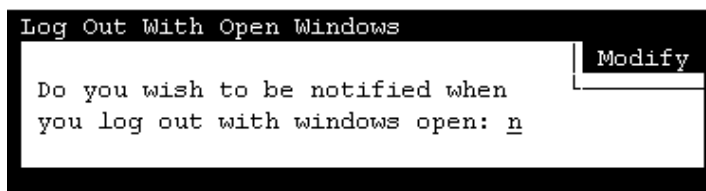
4. Enter the name of your new default printer, and then press the **Return** key. → *The cursor moves to the action list.*
5. Select Modify, and then press the **Return** key. → *Working appears on the status line until the action completes; then Successful appears.*
6. Press the **Exit** key to close the window. → *The Default Printer window disappears.*

Log out with open windows

This SLK menu item allows you to receive a warning if you try to log out of *CentreVu* CMS with open windows.

To be notified if you try to log out of *CentreVu* CMS with an open window, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select Options >, and then press the **Return** key. → *The Options menu displays.*
3. Select Log out with open windows, and then press the **Return** key. → *The Log Out With Open Windows window displays.*



4. Enter **y** for yes. The default value is **n** for no. → *Cursor moves to the action list.*
5. Press the **Return** key to modify. → *Working appears on the status line until the action completes; then Successful appears.*
6. Press the **Exit** key to return to another open window. → *The Log Out With Open Windows window disappears.*

Current ACD

When you log in, *CentreVu* CMS reports information for your default ACD (as set by the *CentreVu* CMS administrator in the User Permissions subsystem).

Note

Only the *CentreVu* CMS administrator can change your default **login** ACD in the User Permissions subsystem.

If your *CentreVu* CMS collects data for more than one ACD, you can change which ACD you are getting information for at any time during your login session.

To change the current ACD, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select **Options >**, and then press the **Return** key. → *The Options menu displays.*
3. Select **Current ACD**, and then press the **Return** key. → *The following window displays.*

```
Current ACD                                     G3V5_eas
User ID cms
Current ACD: 
Find one
List all
Modify
Next
Previous
```

4. Enter the ACD name or number you want to change to, and then press the **Return** key. → *The cursor moves to the action list.*
5. Select **Modify**, and then press the **Return** key again. → *Working appears on the status line until the action completes; then Successful appears.*
6. Press the **Exit** key to close the window. → *You return to your previously opened window, or if there is no open window, to the MainMenu.*

Save as default

The Save as default SLK menu item tells *CentreVu* CMS to save the current input window entries as defaults for that window. When you reopen that window later, the entries you saved as defaults are displayed. These defaults are saved until you change them or restore the system defaults. The defaults saved are only for your login ID.

Note

The first field on a window with a Find one action list item is not saved as a default value.

To save your entries as defaults, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select Options >, and then press the **Return** key. → *The Options menu displays.*
3. Select Save as default, and then press the **Return** key. → *Your defaults for this window are saved.*

Restore system default

The Restore system default menu item removes your entered defaults from the current window and restores the system defaults. Fields that do not have system defaults are cleared.

You must be in an input window that has system defaults or defaults you have previously saved.

To restore the system defaults, perform the following procedure.

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select Options >, and then press the **Return** key. → *The Options menu displays.*
3. Select Restore system default, and then press the **Return** key. → *The system defaults are used and displayed for the current open window.*

Keep SLK

From the **Keep** SLK menu shown in Figure 2-11, you can create, modify, view, or delete timetables and shortcuts.

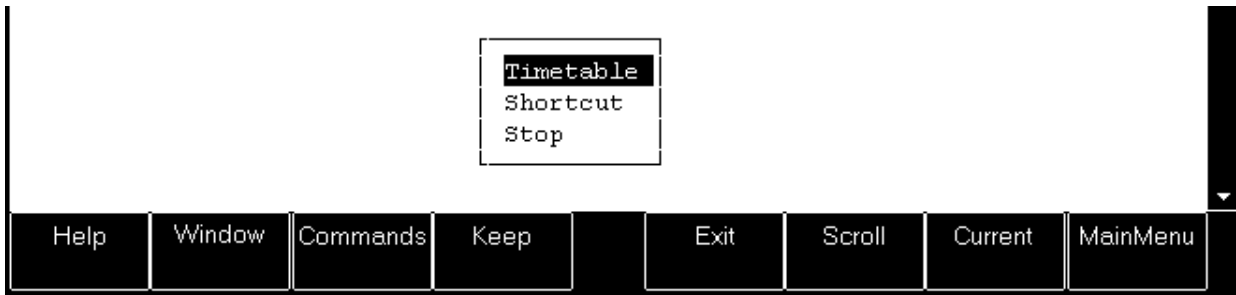


Figure 2-11: Keep SLK Menu

Timetable

Timetable allows you to schedule tasks for completion at a time convenient for you (for example, doing your daily backups at a low traffic time or running a report).

You define a **task** by accessing a user window, entering the appropriate values, and selecting an item (Add, Modify, Delete, Run, or List all) from the action list. A task could, for example, access and complete a historical report input window, and then run the report.

See Chapter 3, “Timetables and Shortcuts,” for more information on timetables.

Shortcut

Shortcut allows you to perform a set of actions immediately.

A shortcut is a **series of tasks** saved by *CentreVu* CMS. Shortcuts happen immediately and are a fast, easy way to select windows that you might look at every day or several times during the day. For example, you might have a particular set of reports that you view every day. You could create and name a shortcut and let *CentreVu* CMS save the tasks you used to get to those reports. Then you only type the shortcut name on the MainMenu blank line to see the reports.

See Chapter 3, “Timetables and Shortcuts,” for more information on Shortcut.

Stop

Stop takes you out of the Timetable or Shortcut Add or Edit mode and displays an Acknowledgment window asking you whether to save the changes. You must be in the Keep mode. Otherwise, this SLK menu item

is grayed out. See Chapter 3, “Timetables and Shortcuts,” for more information.

Exit SLK

The **Exit** SLK works as follows:

- With **user windows**, the **Exit** SLK allows you to close the current window and move to the previously opened window, or if no other windows are open, returns you to the MainMenu. Any secondary windows associated with the current window go away.
- With **menus/submenus**, pressing the **Exit** key moves the cursor to the previous menu or submenu selection (the current submenu goes away).
- With **SLK menus**, if the cursor is on the first SLK menu (not an SLK submenu) and you press the **Exit** key, the cursor returns to the previous position in the current open window or to the MainMenu if there are no open windows.

Scroll SLK

The **Scroll** SLK allows you to toggle between field traversal (input mode) and paging/scrolling.

Note The **Scroll** SLK is not necessary in output windows, since you are automatically in the scroll mode in these windows.

The **Scroll** SLK works as follows:

- You can use the arrow keys to page through output in the direction of the arrow.
- You can type a numeral and then use the arrow keys to scroll that number of lines or characters in the direction of the arrow.

To end the paging/scrolling mode, do one of the following:

- Press the **Scroll** SLK again to exit and revert to input mode.
- Press the **Return** key to move to the action list.
- Press the **Exit** SLK to close the window. The paging mode defaults to the normal default for the newly current window (if any).

Current SLK

The **Current** SLK allows you to step through the open windows. Any displayed menus and SLK menus disappear.

MainMenu SLK

The **MainMenu** SLK displays the *CentreVu* CMS MainMenu but leaves the current window open. Any displayed submenus or SLK menus disappear.

Chapter 3

Timetable and Shortcut

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General Information

This chapter describes how to create and edit timetables and shortcuts. You access timetables and shortcuts from the **Keep** SLK menu, as shown in Figure 3-1.

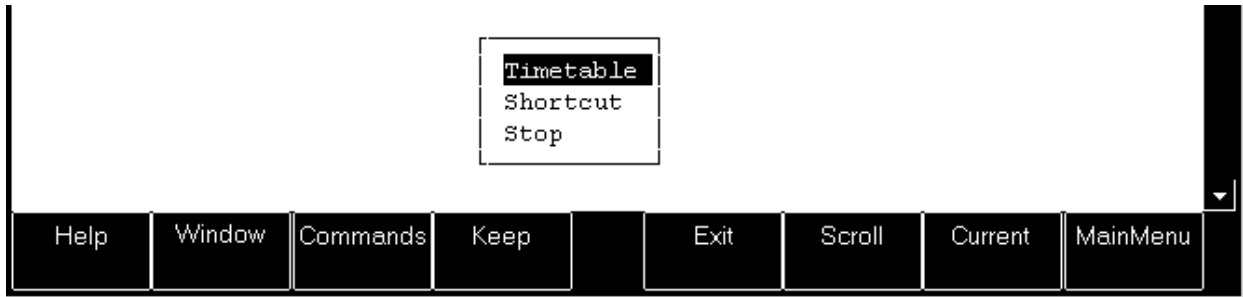


Figure 3-1: Keep SLK Menu

You edit and save timetable and shortcut tasks while in the Keep mode. The Normal mode displays when you exit the Keep mode.

The **Timetable** is a software program that allows you to perform administrative tasks and lets you schedule one or more tasks for completion at specified times. You can define up to 100 tasks for each timetable and schedule each timetable's start time. For example, you can print various reports at a time that is convenient and nondisruptive to your call center's operation.

To define a **task**, you access a user window, enter the appropriate values, and select an item from the action list. For example, a task could access and complete a historical report input window and then run the report. You can schedule historical reports to run at any time on any date you specify.

A **Shortcut** is similar to a timetable except you do not schedule tasks for completion. The tasks you define execute immediately when you run the shortcut. A shortcut is a fast, easy way to select windows that you use often. For example, you can create and name a shortcut for the Split/Skill Status report for skills 2 and 3. The shortcut displays these reports automatically without going through all the ordinary keystrokes to see the reports. Shortcuts are usually used to run real-time reports.

The **Stop** selection exits the add or edit mode for a timetable or shortcut. An acknowledgement window displays asking you if you want to save the additions or changes.

Note

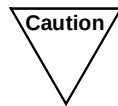
Stop does **not** stop the execution of a timetable or shortcut. For example, if you enter a shortcut name and then decide you do not want to run the shortcut, selecting **Stop** will not stop the shortcut from running. The only way to stop a shortcut from running is to turn the terminal off.

Timetables

This section describes how to create and edit timetables.

Things to Know Before You Start

- You cannot select the terminal as a destination for report output on a timetable.
- Timetables run in the background; not on your terminal. (Outputs are usually print requests or *UNIX*^{*} system/*Solaris*[†] system files).
- Incremental and full backup timetables are already created, but you must schedule the time at which you want them to run..



Changing these timetables may affect system performance. Make sure there are no conflicts with other scheduled activities when running backups. For example, running backups while doing archiving may cause performance problems. For best performance, schedule backups to run either after archiving has been completed or before archiving begins.

- Daily, weekly, and monthly summaries are already scheduled to run automatically. You can access the data storage allocation screen in System Setup to change these run times.
- Timetables that fail to run, or that fail at some point during execution, are logged in the customer error log. The `List all` action item on the Timetable window also displays the timetable status.
- Each timetable can have up to 100 tasks (entries).
- You can schedule up to five timetables to start at the same time (minute).
- You cannot put real-time reports, the Vector Contents window, or custom report creation on a timetable.
- You cannot place a timetable on another timetable.
- You can change the ACD before creating a task, but once a task is defined (window, data, and action), the ACD association is fixed for that window. The only way to change the ACD for a task is to delete it from the current ACD and add a new task for a different ACD.

Note

Use the `Commands` SLK to change the current ACD. See Chapter 2, “User Basics,” for the procedures on changing your current ACD.

* UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

† Solaris is a trademark of Sun Microsystems, Inc.

- You cannot add a task to change the current ACD in order to run the tasks for a different ACD. Changing the current ACD before running a timetable has no effect on tasks created under different ACDs.
- You can have tasks associated with different ACDs on the same timetable.
- If you want to run identical tasks on more than one ACD, you must either design separate timetables for each ACD, or separate tasks on the same timetable.
- Selecting Add, Get contents: Add tasks, or Get Contents: Modify from the Timetable action list automatically activates the Keep mode. This means you cannot access windows that existed before making your selection. After you exit the Keep mode, those previous windows will display again.
- A task is stored with each Add, Delete, Modify, Run, and List all action list selection. Action list selections not saved by *CentreVu* CMS are Find one, Next, Previous, and Get contents. With Find one, Next, Previous, and Get contents, the action happens immediately.
- *Normal* users (not administrators) cannot add, modify, or delete another user's timetables or entries, but normal users can view other users' timetables.
- You cannot move or size windows in the Timetable edit mode.
- *CentreVu* CMS makes every attempt to run each task on a timetable. If an event occurs, such as an acknowledgement window that requires a yes or no response, the timetable is stopped and is logged in the customer error log.
- Tasks for which you do not have permission will not run in a timetable.

Note

To verify timetable status, check the List All window for the timetable, and check the Error Log Report in the Maintenance subsystem.

- The **Current** key in the Keep mode rotates only through your Timetable windows; it does **not** rotate through any windows opened before you entered the Keep mode.
- To print a report more than once on a timetable, you must enter a task for each copy of the report you want. For example, if you want three copies of a report, enter the task three times. The timetable quits if a timetable task fails.

- The timetable printout is automatically sent to your default printer. If your default printer is changed, *CentreVu* CMS automatically sends your timetables to your new default printer. You do not have to change the timetable tasks.

If you specify a destination other than your default printer for a timetable task and that printer is removed or out of service, your timetable task will not execute. You must remove that printer destination and reenter a new printer destination.



If your printer jams, you must resubmit any print request that did not print.

Prerequisite System Administration

- Your *CentreVu* CMS user ID must be entered into *CentreVu* CMS. See Chapter 7, “User Permissions—User Data.”
- To create, modify, or delete timetables, you need **write** permission for Timetable. See Chapter 7, “User Permissions—Feature Access.”
- To view timetables, you need **read** permission for Timetable. See Chapter 7, “User Permissions—Feature Access.”
- You must have read and/or write permission for any *CentreVu* CMS subsystem or ACD entities associated with the tasks included in a timetable.

Relationships to Other Subsystems

User Permissions

If you delete a *CentreVu* CMS user ID (from the User Permissions: User Data window) that has timetables, you are asked if you want to save and rename the timetables owned by that user. The timetables will be deleted if you do not assign them to another user.

If you change a user's access permissions, it could affect the timetables that the user has scheduled. For example, if a user has access to Skills 1, 2, 3, and 4, and you change the user's permissions to Skills 1, 2, and 4, the timetable tasks that the user has scheduled for Skill 3 will either not run or the tasks will display no data.

Reports

Timetable is especially useful for printing historical reports.

Timetable Window You access the Timetable window from the **Keep** SLK menu. Figure 3-2 shows the Timetable window. Table 3-1 describes the Timetable window fields.

The screenshot shows a window titled "Timetable" with a menu bar containing "G3V5_eas". The main area contains the following fields and options:

- Timetable name: _____
- Description: _____
- User ID: cms _____
- Start time: _____
- Start date: _____
- Frequency and attributes (Select only one):
 - ☒ Once
 - ☐ Dates: _____
 - ☐ Hourly, Stop time: 11:59 PM
 - ☐ Daily,
- Hourly/Daily Days (Select any you wish):

☒ Sunday	☒ Thursday
☒ Monday	☒ Friday
☒ Tuesday	☒ Saturday
☒ Wednesday	

A menu is open on the right with the following options: Add, Copy, Delete, Find one, Get contents, List all, Modify, Next, Previous.

Figure 3-2: Timetable Window.

Table 3-1: Timetable Window Fields

Field	Description
Timetable name: (Required for Add)	Enter a unique name for the timetable. The timetable name can have up to 20 characters. The timetable name should be meaningful to your call center because it appears on the List All window identifying the timetable. After you have created a timetable, you cannot directly change the timetable's name. If you retrieve an existing timetable and change the name, and then select Modify from the action list, the message Does not exist displays on the status line. To change the timetable's name, create a timetable with a new name and then copy the old timetable into it.

Table 3-1: Timetable Window Fields (Contd)

Field	Description
Description: (Optional field)	Enter a description of the timetable. The description may be up to 50 characters.
User ID: (Required for Add)	Enter your <i>CentreVu</i> CMS user ID.
Start time: (Required to schedule. See note below.)	Enter the time that you want the timetable to start running. The start time must be in the future or the timetable will not run. - You can use AM/PM format (for example, 2:30AM). - You can enter a time as “hh” or “hhAM” (for example, 2AM) or “hh:mm” or “hh:mmAM” (for example, 2:30AM). If AM or PM is not specified, a 24-hour clock is used.
Start date: (Required to schedule. See note below.)	Enter the date on which you want the timetable to start running. The start date must be in the future or the timetable will not run. You can: - enter dates in a MM/DD/YY format (for example, 4/15/96) - enter dates as a relative day (for example 0 for today, +1 for tomorrow, or +7 for one week from now) An error message displays if an invalid date such as 2/30/96 (February 30, 1996) is entered. If you enter a start date that is in the past, the timetable will not be scheduled.
Note	You may leave either the Start time or the Start date field blank if you want to create the timetable but not schedule it to run.

Table 3-1: Timetable Window Fields (Contd)

Field	Description
Frequency and attributes (Select only one: Required for Add)	< > Once The timetable runs only once for the start date and time you specify. Dates: Enter the dates on which you want the timetable to run. <i>For monthly timetables</i>, enter the specific day each month that you want the timetable to run (for example, 1/1/96, 2/1/96, 3/1/96, 4/1/96 in each individual row and field). <i>For quarterly timetables</i>, enter the specific day on which, every three months, you want the timetable to run (for example, 1/1/96, 4/1/96, 7/1/96, 10/1/96 in the appropriate row and field in Figure 5-2). < > Hourly, Stop time: If you want a timetable to run hourly, enter a stop time (for example, 10:59PM). The timetable runs each hour up to the stop time you specify. The timetable is not scheduled if you enter a stop time that is earlier than the start time you specified for the timetable. < > Daily The timetable runs daily, on the days you specify in the Hourly/Daily, Days (Select any you wish) field.
Hourly/Daily, Days (Select any you wish):	Enter an x next to the days on which you want the timetable to run that week. The default for daily is every day of the week. <i>For weekly timetables</i>, enter an x next to the one day of the week you want the timetable to run.

Error Messages

Failed

If you receive a **Failed** error message while creating or editing a timetable, select **Get contents** and make sure your timetable was saved. If the timetable was saved, reschedule the timetable. If the timetable was not saved, you need to enter the data again.

Creating and Scheduling a Timetable

To create and schedule a timetable, perform the following procedure.

Note To get out of Timetable at any time without saving any changes, select **Stop** from the **Keep** SLK menu, then answer **n** to the acknowledgement window.

1. Select **Timetable** from the **Keep** SLK menu. → *The Starting Timetable message window displays.*
The Timetable Input window displays.
2. Enter a name that is unique to your user ID in the **Timetable name** field. Go to the next field. → *Make sure the name of the timetable is unique and what you want it to be. You **cannot** change a timetable name after adding the timetable to CentreVu CMS.*
3. Enter a description for the timetable in the **Description** field. Go to the next field.
4. Enter your user ID in the **User ID** field. Go to the next field. → *The default value is the logged-in user ID.*
5. Enter the time that you want your timetable to start running in the **Start time** field. (You can enter the time in either “hh” or “hh:mm” format. If AM or PM is not specified, a 24-hour clock is used.) Go to the next field.

Note If you want to run a timetable immediately, set the start time to a few minutes ahead of the current time (for example, 3 minutes from now).

6. Enter the date that you want your timetable to start running in the **Start date** field. Go to the next field.

7. Enter an **x** next to how often you want your timetable to run (Frequency). → *If you select Once, your timetable runs only one time.*
- If you select Hourly, enter the time you want the timetable to stop running in the Stop time field.*
- If you select Dates, enter the specific dates on which you want the timetable to run.*
- If you select Daily, for daily reports, enter **x** next to the days of the week on which you want the timetable to run. For weekly reports, enter **x** next to the one day of the week on which you want the timetable to run.*
8. Press the **Return** key to move the cursor to the action list, select Add, and then press the **Return** key again to add the timetable to CentreVu CMS. → *Working displays on the status line.*
- If the timetable name already exists, Already exists displays on the status line, and you must enter a different timetable name.*
- If all entries are valid, the MainMenu displays with Keeping Entries in the border.*
9. From the MainMenu, go to the window for which you want to schedule one or more tasks.

10. Complete the required field entries on the window, then select an action list item. → *When each action list selection is made and validated, Entries Stored displays on the status line of the current window.*
11. Repeat the window entries and the action list selection (Step 10) for each task.

Note You can create more than one timetable task from a window. For example, suppose you want historical Split/Skill Summary Interval reports for skills 1 through 9. And suppose you also want the same date and times for each report. To do this, go to the report input window and enter 1 for the skill number, 0 for the date, and 8:00-16:00 for the times. Now select Run from the action list. This creates a timetable task for skill 1. Next, change skill 1 to skill 2, and select Run from the action list. This creates a timetable task for skill 2. Repeat the same process for skills 3 through 9.

You can also reuse a different open window by using the **Current** SLK. Select the window to make it current, change the appropriate field values, then select an action list item.

12. Press the **Keep** SLK and select Stop when you have finished adding tasks. → *An acknowledgement window displays, asking if you want to save your changes.*
13. Enter **y** to save the timetable. → *Your tasks are now scheduled on a timetable. The Timetable window displays.*
14. Press the **Exit** SLK to close the Timetable window. → *Your previously opened windows display.*

Creating but Not Scheduling a Timetable

To create a timetable without scheduling it, perform the following procedure.

Note To get out of Timetable at any time without saving any changes, select **Stop** from the **Keep** SLK menu, and then answer **n** to the popup window.

1. Select Timetable from the **Keep** SLK menu. → *The Starting Timetable acknowledgement window displays.*
The Timetable Input window displays.
2. Enter a name that is unique to your user ID in the Timetable name field. Go to the next field. → *Make sure the name of the timetable is unique and what you want it to be. You **cannot** change a timetable name after adding the timetable to CentreVu CMS.*
3. Enter a description for the timetable in the Description field. Go to the next field.
4. Enter your user ID in the User ID field. Go to the next field. → *The default value is the logged-in user ID.*
5. Skip the Start time and Start date fields, and go to the next field.

6. Enter an **x** next to how often you want your timetable to run (Frequency). → *If you select Once, the timetable runs one time.*
- If you select Hourly, enter the time that you want the report to stop running in the Stop time field.*
- If you select Dates, enter the specific dates on which you want the timetable to run.*
- If you select Daily, for daily reports, enter x next to the days of the week on which you want the timetable to run.*
- For weekly reports, enter x next to the one day of the week on which you want the timetable to run.*
7. Press the **Return** key to move the cursor to the action list, select Add, and then press the **Return** key again to add the timetable to CentreVu CMS. → *Working displays on the status line.*
- If the timetable name already exists, Already exists displays on the status line, and you must enter a different timetable name.*
- If all entries are valid, the MainMenu displays Keeping Entries in the border.*
8. From the MainMenu, go to the window for which you want to schedule one or more tasks.
9. Complete the required field entries on the window, then select an action list item. → *When each action list selection is made and validated, Entries Stored displays on the status line of the current window.*

10. Repeat the window entries and the action list selection (Step 9) for each task.
11. Press the **Keep** SLK, and select Stop when you have finished adding tasks. → *An acknowledgment window displays, asking if you want to save your changes.*
12. Enter **y** to save the timetable. → *You can now schedule tasks at your convenience.*
The Timetable window displays.
13. Press the **Exit** SLK to close the Timetable window. → *Your previously opened windows display.*

Note

When you are ready to schedule the timetable, enter a time in the **Start time** field and a date in the **Start date** field, and then select **Modify** from the action list. You must specify a start time that is later than the current time, or else the timetable will not be scheduled.

Copying a Timetable

To copy a timetable, perform the following procedure.

Note

You can copy timetables from other users. You cannot copy over an existing timetable.

When you copy a timetable, the schedule information and the timetable tasks are copied.

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. Enter the name of the new timetable into which you want to copy the existing timetable in the **Timetable name** field.
3. Enter your user ID in the **User ID** field. → *The timetable will be copied to your ID.*
4. Select **Copy** on the action list, and then press the **Return** key. → *The Copy window displays.*
5. Enter the name of the timetable that you want to copy in the **Copy from** field. Move to the next field.
6. Enter the user ID of the user whose timetable you want to copy in the **User ID** field.
7. Select **Copy** on the action list, and then press the **Return** key to copy the timetable. → *If the timetable copies, Successful displays on the status line.*

Note

If you copy a timetable that needs to be rescheduled in order to run, an acknowledgement window notifies you of this during the copy.

8. Press the **Exit** SLK to close the Timetable window and return to your previously opened window. → *The previous windows display.*

Deleting a Timetable

To delete a timetable, perform the following procedure.

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable window displays.*
2. Enter the name of the timetable that you want to delete in the **Timetable name** field.
3. Select **Delete** on the action list, and then press the **Return** key. → *An acknowledgment window displays indicating that all tasks associated with this timetable will be deleted.*
4. Answer **y** to delete the timetable, and then press the **Return** key. → *The timetable is deleted.*
5. Press the **Exit** SLK to close the Timetable window. → *The previous windows display.*

Editing a
Timetable

Use the Timetable Get contents menu selection to edit a timetable. Figure 3-3 shows an example of the Get Contents window. Table 3-2 describes the Get Contents window fields.

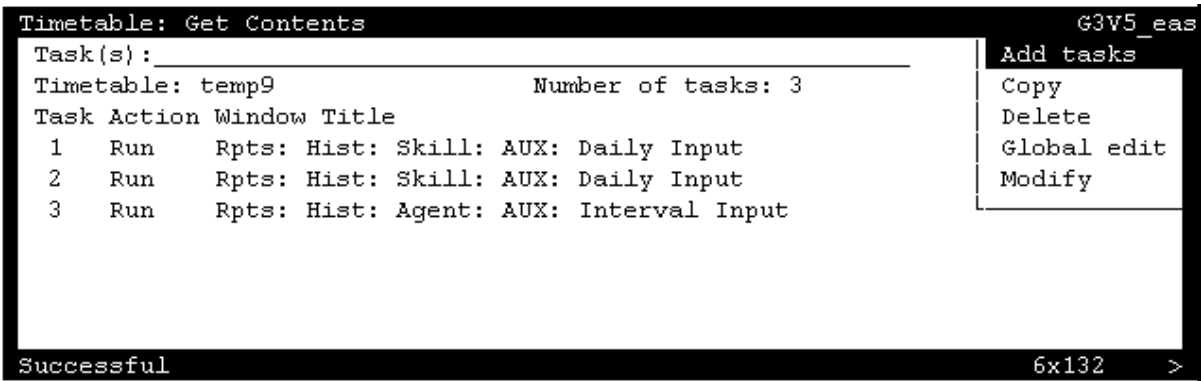


Figure 3-3: Timetable Get Contents Window

Table 3-2: Timetable Get Contents Window Fields

Field	Description
Task number(s) :	Enter the numbers corresponding to the tasks that you want to copy, delete, or modify, or enter the number of the task after which you want to add new tasks. You can enter a list (using a semicolon for the list separation), or range (using a minus sign for the range separation), for all actions except Add tasks.
Task	Display-only column that lists the number corresponding to the position of the task in the timetable.
Action	Display-only column that lists the action associated with the task.
Window Title	Display-only column that lists the title of the window that constitutes the task.
ACD	Display-only column that lists the ACD associated with the task.
Value	Display-only column that lists the input data associated with the task.

Adding Tasks to a Timetable

The Get Contents Add tasks menu selection enables you to add tasks to a timetable in the same manner in which you added tasks when you first created the timetable.

Note

If you want to add a task to the beginning of a timetable, leave the Task number(s) field blank and the new task will be added before the first task. If you are adding tasks to a timetable that has no tasks, leave the Task number(s) field blank.

To exit Timetable at any time without saving any changes, select Stop from the **Keep** SLK menu, and then answer **n** to the acknowledgement window.

1. Select Timetable from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. Enter the name of the timetable to which you want to add a task in the Timetable name field.
3. Press the **Return** key, then select Get contents from the action list. Press the **Return** key again. → *The Get Contents window displays.*
The timetable must already exist. The owner and the administrator are the only ones who can edit the timetable.
4. Enter the number of the task that you want the new tasks to follow in the Task number(s) field. → *If you want to add a task to the beginning of the timetable, leave the Task number(s) field blank. The new task will be added before the first task.*
If you are adding tasks to a timetable with no tasks, leave the Task number(s) field blank.

5. Select the Add tasks action, and then press the **Return** key. → *The MainMenu displays.
When you create a new task, it is added after the task number you entered.
If you select the **Exit** SLK and you have not selected an action list entry, the task is **not** saved.*
6. Use the normal menu selections from the MainMenu to go to the task you want to schedule. → *Keeping Entries displays on the status line. This is the Keep mode.*
7. Complete the required field entries on the window, and select an action list item. → *When each action list selection is made and validated, Entries Stored displays on the status line of the current window.*
8. Repeat the above steps to add as many tasks as you need.
9. Press the **Keep** SLK and select Stop when you have finished adding tasks. → *An acknowledgement window displays, asking if you want to save your changes.*
10. Enter **y** to save the timetable. → *The new tasks you added are displayed in the Get Contents window, following the task you specified. Subsequent tasks are renumbered.*
11. Press the **Exit** SLK to close the Timetable window. → *Your previous normal open windows display.*

Copying Timetable Tasks

The Get Contents Copy menu selection enables you to make a copy of each task you entered in the input field. After selecting Copy, a secondary window displays as shown in Figure 3-4. This window allows you to specify where to place the copies. Copies may be placed after a specified task in the timetable, or each copy may be placed directly following the task from which it was copied. The default is to place the copies after the last task in the timetable.

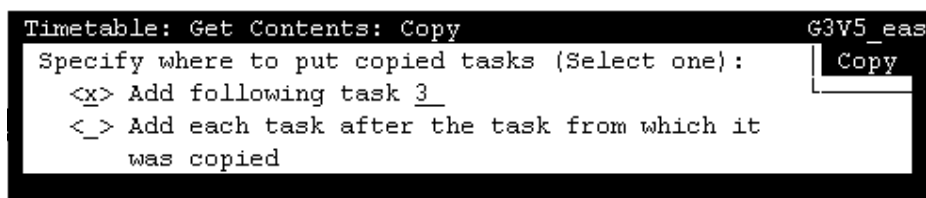


Figure 3-4: Timetable Get Contents Copy Window

To copy timetable tasks, perform the following procedure.

Note

You cannot specify the same task more than once when using the Copy action in the Get Contents window. If you specify the same task more than once, or specify overlapping ranges, an error message displays.

You cannot copy more than 100 tasks into a timetable. If you exceed the limit, none of the tasks are copied and the status line displays **Failed**. An error acknowledgement window informs you that you cannot copy so many tasks to the timetable.

1. Select Timetable from the **Keep** SLK menu. → *The Timetable window displays.*
2. Enter the name of the timetable to which you want to add tasks in the Timetable name field.
3. Select Get Contents on the action list and then press the **Return** key. → *The Get Contents window displays.*
The timetable must already exist. The owner and the administrator are the only ones who can edit the timetable.

4. Enter the task numbers that you want to copy in the Task number(s) field.
5. Select Copy from the action list → *The Get Contents: Copy window displays.*
and then press the **Return** key.
6. Enter an x by the Add following task field or the Add each task after the task from which it was copied field.



Choosing Add following task causes the copies to be placed after a specific task in the timetable.

Choosing Add each task after the task from which it was copied causes each copy to display directly following the task of which it is a copy.

7. Press the **Return** key to move the cursor to the action list. Copy is selected. Press the **Return** key again.

If the action completes successfully, Successful displays in the status line. If the action fails, the status line displays Failed and an acknowledgement window explains the reason for the failure.

The Get Contents window displays after the copy completes.
8. Press the **Exit** SLK. → *The Timetable window displays.*

Deleting Tasks from a Timetable

To delete tasks from a timetable, perform the following procedure.

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. Enter the name of the timetable from which you want to delete a task, in the **Timetable name** field.
3. Select **Get contents** from the action list, and then press the **Return** key. → *The Get Contents window displays.*
The timetable must already exist. The owner and the administrator are the only ones who can edit the timetable.
4. Enter the task numbers that you want to delete in the **Task number (s)** field.
5. Select **Delete** from the action list, and then press the **Return** key. → *An acknowledgment window displays asking you to verify if you want to delete the task(s).*
6. Enter a **y** if you want to delete the tasks, and enter an **n** if you do not want to delete the tasks. → *The tasks you selected are deleted, and the remaining tasks on the list are renumbered. Successful displays on the status line. (If the action fails, the status line displays Failed and an acknowledgement window explains the reason for the failure.)*
7. Press the **Exit** SLK. → *The Timetable window displays.*

Editing a Timetable Globally

The global edit menu selection allows you to replace all occurrences of a given input value in the selected task with a new value. For example, you may have reports scheduled to run in a timetable using data from yesterday, and you wish to use data from three days ago instead. Global edit allows you to use the older data for all the reports with a single action.

Note

If you make a copy of the original timetable and then edit the *copy*, you can preserve the original timetable to run normally.

When you select Global edit, the secondary window shown in Figure 3-5 displays. This secondary window allows you to select the field in which to replace values, and to specify the new values. Any error detected in the input is reported to you in an error message window. You must correct all errors before selecting an action.

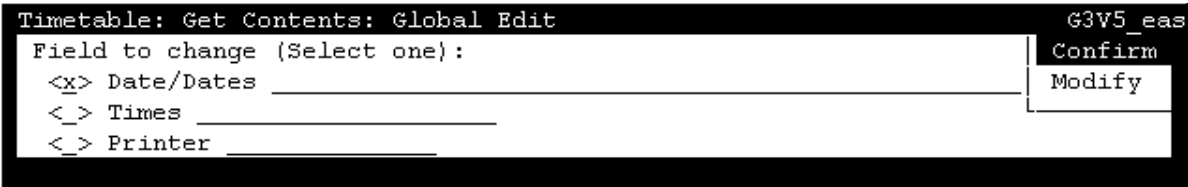


Figure 3-5: Timetable Get Contents Global Edit Window

To edit a timetable globally, perform the following procedure.

1. Select Timetable from the **Keep** SLK menu.

→ The Timetable window displays.
2. Enter the name of the timetable that you want to edit in the Timetable name field.
3. Select Get contents on the action list and then press the **Return** key.

→ The Get Contents window displays.

The timetable must already exist. The owner and the administrator are the only ones who can edit the timetable.

4. Enter the task numbers that you want to edit in the Task number (s) field.
5. Select the Global edit action, and then press the **Return** key. → *The Get Contents: Global Edit window displays.*
6. Enter an **x** by the type of field you wish to change.
7. Enter the new value, list, or range of values to replace the values currently in the selected field type.
8. Select Confirm from the action list, and review the changes. → *The changes to the tasks are listed. Tasks not containing input fields of the type you selected do not appear in the display.*
9. Press the **Exit** SLK to display the Global Edit window. If changes need to be made to the new values, repeat Steps 7 and 8.
10. Press the **Return** key when the new values are correct.
11. Select Modify from the action list → *The status line displays Working and Successful messages, and then the Get Contents window displays.*
12. Press the **Exit** SLK.

Confirm

If you choose **Confirm** from the Get Contents: Global Edit window, a secondary window displays as shown in Figure 3-6.

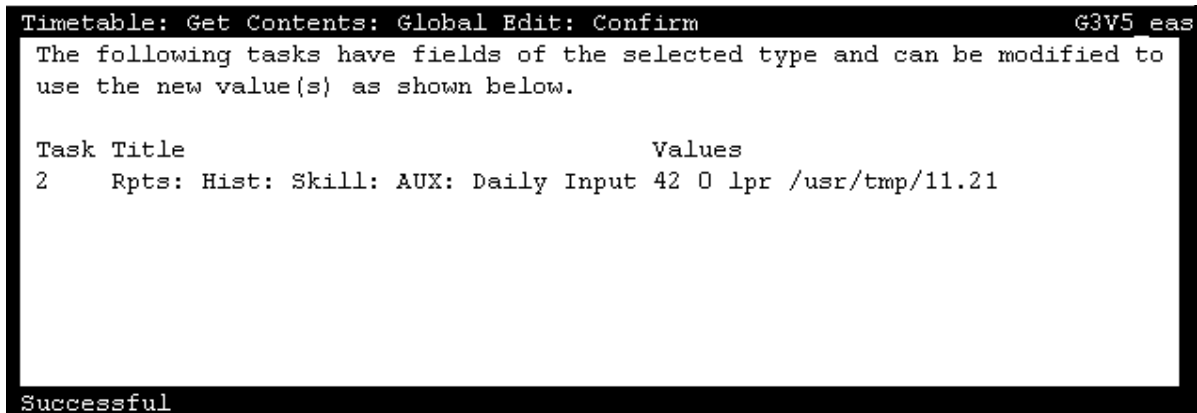


Figure 3-6: Timetable Get Contents Global Edit Confirm Window

This window lists tasks that you selected to be changed. The input field values for the tasks display. The new value you specified is substituted for the original value in the field of the selected type.

After you have looked at the Confirm window, perform one of the following depending upon whether you do, or do not want to go ahead with the changes.

- Return to the Global Edit window (using the **Exit** SLK or the **Current** SLK) and select **Modify** if you want to make the changes.
- Return to the Global Edit window (using the **Exit** SLK or the **Current** SLK) and select the **Exit** SLK if you do **not** want to make the changes.

Modify

If you choose **Modify** from the Get Contents: Global Edit window, the requested change is made in all the tasks that match the input field type specified. The old values in the fields are replaced by the new values you entered. If the action completes successfully, **Successful** displays in the status line. If the action fails, the status line displays **Failed** and a popup window explains the reason for the failure.



If none of the tasks have an input field of the type you select for change, the status line displays **Successful**, but no tasks will be modified.

After successfully completing the Global Edit window, you can see the changed values in the Get Contents window **Values** list.

Modifying Tasks in a Timetable

The **Current** SLK and **MainMenu** SLK are blocked while you modify tasks. The terminal beeps if you select either of these two keys. The only valid choice on the **Keep** SLK menu is **Stop**. The only option available from the **Window** SLK is the Redraw screen. If you press the **Exit** SLK without selecting a task action, a popup window displays, informing you that task modification is cancelled (the input data values have not changed for this task). Press the **Return** key to continue.

To modify timetable tasks, perform the following procedure.

Note To exit the timetable without saving any changes, select **Stop** from the **Keep** SLK menu, and then answer **n** to the acknowledgement window.

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. Enter the name of the timetable that has tasks you want to modify in the **Timetable name** field.
3. Select **Get contents** on the action list and then press the **Return** key. → *The Get Contents window displays.*
The timetable must already exist. The owner and the administrator are the only ones who can edit the timetable.
4. Enter the task numbers that you want to modify in the **Task number(s)** field.
5. Select the **Modify** menu selection. → *You are now in the Keep mode. The task window for the task you have selected displays.*
6. Make any required changes to the fields. → *You must select an action in order to complete the modification. You can change the task data, the task action, or both.*

Note The default action for the task is the one currently associated with the task. In this way, you can press the **Return** key twice to complete the modification of task data without changing the task action.

7. Press the **Return** key, select the appropriate action, and then press the **Return** key again. → *The next task to be modified displays.*
8. Repeat steps 6 and 7 until all selected tasks are modified. → *After the last task has been modified, a prompt displays asking if you want to save your changes.*
9. Enter **Y** to save the changes. → *The Get Contents window displays.*

Timetable List All

Use the Timetable List All menu selection to list all of the timetables in your database. Press **<Ctrl> Z** to clear all fields on the Timetable window (see Figure 3-2). Figure 3-7 shows an example of the List All window. Table 3-3 describes the possible status values for timetables.

<u>Timetable Name</u>	<u>User ID</u>	<u>Status</u>	<u>Next Run</u>	<u>Start Time</u>
skh11.20.2	cms	finished		1:30 PM
temp7	cms			
temp9	cms	finished		1:30 PM
tst	cms			

4 matches found 7x240 >

Figure 3-7: Timetable List All Window

Table 3-3: Timetable List All Window Fields

Field	Description
Finished	The timetable was scheduled to run once and it completed successfully.
Failed	The timetable failed to run successfully for the last scheduled run time. For example, if <i>CentreVu</i> CMS is off, the List All window indicates Failed in the status. If the timetable is rescheduled and the next run time is valid, the timetable will run as scheduled. If you want to run the timetable for the time that it failed you must set a new start time. First, go into the timetable and change the start time to two minutes or so from the present time. Then, change the start date to today's date.
Successful	The timetable completed successfully.
Unscheduled	The timetable does not have an assigned start time or start date (is not scheduled).
Running	The timetable is currently running.

Timetables and the System Clock

If the switch clock, or *UNIX* system/*Solaris* system clock is changed to a date and time in advance of the current date and time, any timetables scheduled to run between the current time and the new clock time start running immediately. If all timetables start running at the same time, the *CentreVu* CMS runs very slowly. This problem can happen yearly during the change to daylight-saving time. The problem can also occur if the switch clock is changed to a future date or time.

Note When changing to daylight-saving time in the spring, **do not** change the time during the hour in which all your daily timetables are scheduled to run.

If all or most of your timetables start running at the same time, perform the following procedure to stop the timetables and reset the *UNIX* system/*Solaris* system clock.

1. Put *CentreVu* CMS in single-user mode (Maintenance— CMS State). This stops timetables from running.
2. Set the switch clock, or *UNIX* system/*Solaris* system clock to the correct time.
3. Go to the *UNIX* system/*Solaris* system and enter the following commands to turn *CentreVu* CMS off and back on.

```
# cmsadm
```

The program responds with the following display:

```
Call Management System Administration Menu
Select a command from the list below.
 1) acd_create   Define a new ACD
 2) acd_remove  Remove all administration and data for an ACD
 3) backup      Filesystem backup
 4) diskmap     Estimate disk requirements
 5) memory      Estimate memory requirements
 6) realtime    Estimate real-time report refresh rate
 7) pkg_install Install a feature package
 8) pkg_remove  Remove a feature package
 9) run_cms     Turn CMS on or off
Enter choice (1-9) or q to quit:
```

4. Enter **9**.

The program responds with the following display:

```
Select the following:
1) Turn on CMS
2) Turn off CMS

Enter the choice (1-2):
```

Enter **2** to turn off *CentreVu* CMS.

5. Turn *CentreVu* CMS back on by typing **cmsadm** at the **#** prompt, and then entering **9** at the Enter choice (1-9) or **q** to quit prompt.

6. Enter **1** after Select the following.

The program responds with the following display:

```
Please wait for initialization ....
```

When the *CentreVu* CMS is successfully back on, the program responds with the following display:

```
*** CMS is now up ***
```

Your cursor is at the **#** prompt.

7. Enter **exit** to return to the **\$** prompt, and then log into the *CentreVu* CMS.

Shortcuts

This section describes how to create and edit shortcuts.

Things to Know Before You Start

- Each user can create up to ten shortcuts.
- Once a shortcut is started, it cannot be stopped.
- You can copy shortcuts from other users.
- When creating a shortcut, you cannot exceed the maximum window count assigned on your User Permissions: User Data window.
- When you select Shortcut, you are automatically placed in the Keep mode when you select Add, Get contents: Add tasks, or Get Contents: Modify from the action list. You cannot access any other open window until you exit the Keep mode.
- A task is stored with each Add, Delete, Modify, Run, Find one, and List all action list selection. Action list selections not saved by *CentreVu* CMS are Next, Previous, and Get contents.
- You cannot create a custom report using a shortcut.
- The **Current** key in the Keep mode only rotates through your Shortcut windows; it does **not** rotate through any windows opened before you entered the Keep mode.
- When you are adding tasks to a shortcut, tasks that have errors in them are saved in the shortcut. For example, if you are creating a task to run a report and you enter invalid data in the report input window, the report will not run, but the task will be saved in the shortcut.

If this happens, you can:

- Save the shortcut and then use the Get contents action in Shortcut to modify the error, or
- Exit the shortcut without saving the new task.

- You can use shortcut to select a set of windows and move and size those windows on the terminal's screen. For example, you could select two reports and create a shortcut so these windows are easy to see and do not overlap.
- Error messages or acknowledgement windows stop a shortcut at the task where the error message or acknowledgement window appeared. For example, lack of permission for a skill may cause a shortcut to stop when the shortcut reaches that skill. Correct the problem and rerun the shortcut.
- Shortcut edit mode is also like timetable edit mode except you are allowed to run action list selections to move and size windows.

Prerequisite System Administration

- You must assign a *CentreVu* CMS user ID to anyone that will be using shortcut. See Chapter 7, "User Permissions—User Data."
- You must have read and/or write permission for any *CentreVu* CMS subsystems or ACD entities associated with the tasks included in a shortcut.

Relationships to Other Subsystems

User Permissions

If you delete a *CentreVu* CMS user ID from the User Permissions: User Data window and that user has shortcuts, all shortcuts belonging to that user are deleted.

If you change a user's access permissions, it could affect that user's shortcuts. For example, if a user has access to Skills 1, 2, 3, and 4 and you change the user's permissions to Skills 1, 2, and 4, the shortcuts for Skill 3 will either not run or the shortcuts will display no data.

Shortcut Window

You access the Shortcut window from the **Keep** SLK popup menu. Figure 3-8 shows the Shortcut window. Table 3-4 describes the Shortcut window fields.

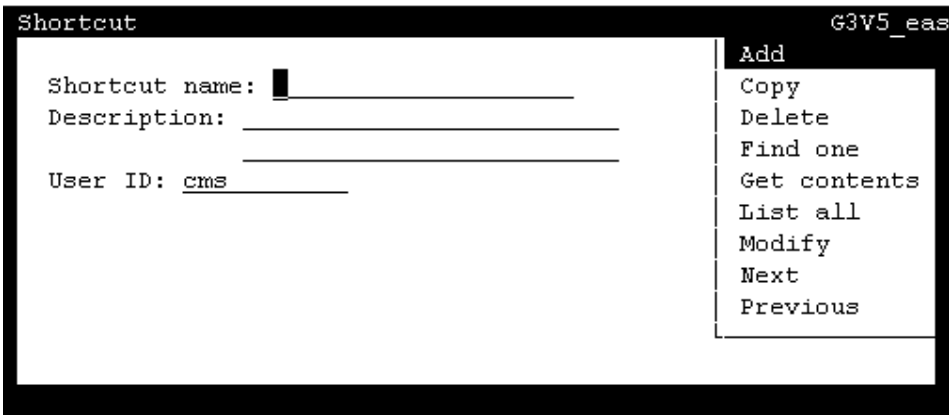


Figure 3-8: Shortcut Window

Table 3-4: Shortcut Window Fields

Field	Description
Shortcut name:	Enter a unique name for the shortcut. The name can have up to 20 characters.
Description: (Optional field)	Enter a description of the shortcut. The description could include the name of each major task you place on the shortcut. The description can have up to 50 characters.
User ID:	Enter the ID of the user whose shortcut you wish to copy or view, or enter your own user ID if creating or modifying your own shortcut.

Creating a Shortcut

To create a shortcut, perform the following procedure.

Note

To get out of Shortcut creation at any time without saving any changes, select **Stop** from the **Keep** SLK menu, and then answer **n** to the acknowledgement window.

1. Select **Shortcut** from the **Keep** → *The Shortcut window displays.*
2. Enter a unique name in the **Shortcut name** field. Press the down arrow (↓) or the **Tab** key to go to the next field.
3. Enter a description for the shortcut in the **Description** field. → *The user ID field automatically contains your user ID. The cursor moves to the action list.*
4. Press **A** to move your cursor to **Add** on the action list, and then press the **Return** key to add your shortcut to *CentreVu CMS*. → *Add is selected, and Working displays on the status line. (All other windows temporarily disappear.)*

If the shortcut name already exists, Already exists displays on the status line, and you have to enter another shortcut name.

If all entries are valid, Successful displays on the Shortcut window status line, and Keeping Entries displays in the border of the MainMenu.

Note

You can display multiple input windows on the screen by selecting **Move** and **Size** from the **Window** SLK menu. Move and size the output windows so they do not overlap. This allows you to make the best use of the terminal screen's space. It takes only a few key strokes to get ready for the day or change context quickly.

5. From the MainMenu, go to the task that you want to view.
6. Complete the required field entries on the window, and select an action list item. → *When each action list selection is made and validated, Entries Stored displays on the status line of the current window.*
7. Use the size or move selection from the **Window** SLK menu if you do not like the size or location of your user windows on the Shortcut.
8. Repeat the window and action list selections for each task that you want to view with this shortcut.
9. Press the **Keep** SLK and select Stop from the menu when you have finished adding tasks to this shortcut. → *An acknowledgment window displays.*
10. Enter Y to save your shortcut. → *Your tasks are now saved on a shortcut.*
All windows are closed, and Successful displays on the status line of the Shortcut window.
11. Press the **Exit** SLK to close the Shortcut window. → *The previous windows display.*

Running a Shortcut

To run a shortcut, perform the following procedure.

1. Enter the shortcut name after the semicolon (;) on the MainMenu. → *The shortcut starts running, and the keyboard locks until the shortcut finishes. Successful displays on the status line.*

Copying a Shortcut

To copy a shortcut, perform the following procedure.

Note

You can copy a shortcut only for yourself. You cannot copy over an existing shortcut.

1. Select Shortcut from the **Keep** SLK menu.

→ *The Shortcut window displays.*
2. Enter a new name for the shortcut to which you want to copy in the Shortcut name field.
3. Enter your user ID in the User ID field.

→ *The shortcut is copied to your ID.*
4. Select Copy on the action list, and then press the **Return** key.

→ *The Copy window displays.*
5. Enter the name of the shortcut that you want to copy in the Shortcut copy from field.
6. Enter the ID of the user whose shortcut you want to copy in the User ID field.
7. Select Copy on the action list, and then press the **Return** key to copy the shortcut.

→ *If the shortcut copies, Successful displays on the status line.*
8. Press the **Exit** SLK to close the Copy window and return to your previously opened shortcut window.

→ *The previous shortcut window displays.*
9. Press **Exit** to close the shortcut window and return to your previously opened window.

→ *The previous windows display.*

Deleting a Shortcut

To delete a shortcut, perform the following procedure.

1. Select **Shortcut** from the **Keep** SLK menu. → *The Shortcut Input window displays.*
2. Enter the name of the shortcut that you want to delete in the **Shortcut name** field.
3. Select **Delete** on the action list, then press the **Return** key. → *An acknowledgement window displays indicating that all tasks associated with this shortcut will be deleted.*
4. Answer **Y** to delete the shortcut, and then press the **Return** key. → *The shortcut is deleted.*
5. Press the **Exit** SLK to close the Shortcut window. → *The previous windows display.*

Editing a Shortcut Use the Shortcut Get contents menu selection to edit a shortcut. Figure 3-9 shows an example of the Get Contents window. Table 3-5 describes the Get Contents window fields.

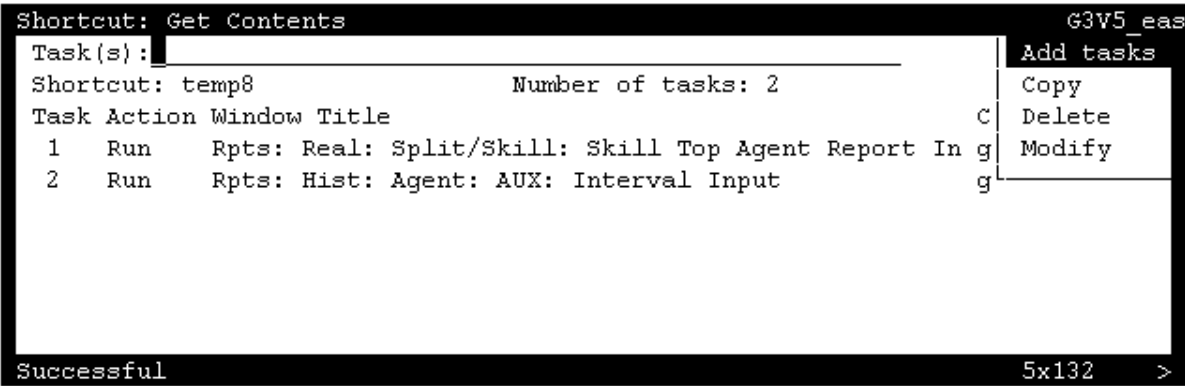


Figure 3-9: Shortcut Get Contents Window

Table 3-5: Shortcut Get Contents Window Fields

Field	Description
Task(s) :	Enter the numbers corresponding to the tasks that you want to copy, delete, or modify, or enter the number of the task after which you want to add new tasks. You can enter a list (using a semicolon for the list separation), or range (using a minus sign for the range separation), for all actions except Add tasks.
Shortcut	Display-only field that shows the shortcut you are using.
Number of tasks	Display-only field that shows the number of tasks in the shortcut.
Task	Display-only column that lists the number corresponding to the position of the task in the shortcut.
Action	Display-only column that lists the action associated with the task.
Window Title	Display-only column that lists the title of the window that constitutes the task.
ACD	Display-only column that lists the ACD associated with the task.
Value	Display-only column that lists the input data associated with the task.

Adding Tasks to a Shortcut

To add tasks to a shortcut, perform the following procedure.



To exit the Shortcut window at any time without saving any changes, select **Stop** from the **Keep** SLK menu, and then answer **n** to the popup window.

1. Select **Shortcut** from the **Keep** → *The Shortcut window displays.*
2. Enter the name of the shortcut, to which you want to add a task, in the **Shortcut name** field.

3. Press the **Return** key, and then select **Get contents** on the action list. Press the **Return** key again. → *The shortcut must already exist. The owner and the administrator are the only ones who can edit the Shortcut.*
4. Enter the number of the task that you want the new tasks to follow in the **Task number(s)** field.
5. Select the **Add tasks** action, and then press the **Return** key. → *The MainMenu displays.*
When you create a new task, it is added after the task number you entered.
*If you select the **Exit** SLK and you have not selected an action list entry, the task will **not** be saved.*
6. Use the normal menu selections from the MainMenu to go to the task that you want to schedule. → *Keeping Entries displays on the status line.*
7. Complete the required field entries on the window, and select an action list item. → *When each action list selection is made and validated, Entries Stored displays on the status line.*
8. Repeat the above steps to add as many tasks as you need.
9. Press the **Keep** SLK and select **Stop** when you are finished adding tasks. → *An acknowledgement window displays, asking if you want to save your changes.*
10. Enter **Y** to save the new tasks. → *The Get Contents window displays with the entries you chose in the preceding menu.*
11. Press the **Exit** SLK. → *The Get Contents window closes and the Shortcut window displays.*

Copying Tasks for a Shortcut

The Get Contents Copy menu selection enables you to make a copy of each task you entered in the input field. After selecting Copy, a secondary window displays as shown in Figure 3-10. This window allows you to specify where to place the copies. Copies may be placed after a specified task in the shortcut, or each copy may be placed directly following the task from which it was copied. The default is to place the copies after the last task in the shortcut.

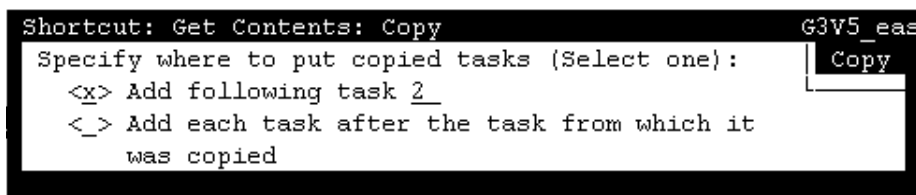


Figure 3-10: Shortcut Get Contents Copy Window

To copy shortcut tasks, perform the following procedure.

Note

You cannot specify the same task more than once when using the Copy action in the Get Contents window. If you specify the same task more than once, or specify overlapping ranges, an error message displays.

You cannot copy more than 100 tasks into a shortcut. If you exceed the limit, none of the tasks are copied and the status line displays **Failed**. An error window informs you that you cannot copy so many tasks to the shortcut.

1. Select **Shortcut** from the **Keep** → *The Shortcut window displays.*
2. Enter the shortcut name in which you want to copy a task in the **Shortcut name** field.
3. Select the **Get contents** menu selection and then press the **Return** key. → *The Get Contents window displays.*
The shortcut must already exist. The owner and the administrator are the only ones who can edit the shortcut.
4. Enter the number of the task or tasks that you want to copy in the **Task number(s)** field.

5. Select Copy. → *The Get Contents: Copy window displays.*
6. Enter an **x** either by the selection Add following task or by the selection Add each task after the task from which it was copied. → *Choosing the Add following task causes the copies to be placed after a specified task in the shortcut.*

Choosing Add each task after the task from which it was copied causes each copy to display directly following the task of which it is a copy.
7. Press the **Return** key to select the Copy menu selection, then press the **Return** key again. → *The message Working displays. If the action completes successfully, Successful displays in the status line. If the action fails, Failed displays in the status line and a popup window indicates the reason for the failure.*

The Get Contents window displays.
8. Press the **Exit** SLK. → *The Shortcut window displays.*

Deleting Tasks from a Shortcut

To delete tasks from a shortcut, perform the following procedure.

1. Select **Shortcut** from the **Keep** SLK menu. → *The Shortcut Input window displays.*
2. Enter the shortcut name from which you want to delete tasks in the **Shortcut name** field.
3. Select **Get contents** in the action list and then press the **Return** key. → *The Get Contents window displays.*
The shortcut must already exist, and only the owner of the shortcut can edit it (unless the user is an administrator).
4. Enter the task numbers that you want to delete in the **Task number(s)** field.
5. Select **Delete** from the menu, and then press the **Return** key. → *The tasks you selected are deleted. The remaining tasks are renumbered on the list. Successful displays on the status line. (If the action fails, the status line displays **Failed** and a popup window explains the reason for the failure.)*
6. Press the **Exit** SLK. → *The Shortcut window displays.*

Modifying Shortcut Tasks

The **Current** SLK and **MainMenu** SLK are blocked while you modify tasks. The terminal beeps if you select either of these two keys. The only valid choice on the **Keep** SLK menu is **Stop**. The only option available from the **Window** SLK is the Redraw screen. If you press the **Exit** SLK without selecting a task action, a Return popup window displays, informing you that task modification is cancelled (the input data values have not changed for this task). Press the **Return** key to continue.

You can move and resize shortcut windows during modification. The new size and position are saved when the window is closed.

To modify shortcut tasks, perform the following procedure.

Note

To exit the shortcut without saving any changes, select **Stop** from the **Keep** SLK menu, and then answer **n** to the acknowledgement window.

1. Select **Shortcut** from the **Keep** SLK menu.

→ *The Shortcut Input window displays.*
2. Enter the name of the shortcut that has tasks you want to modify in the **Shortcut name** field.
3. Select **Get contents** on the action list and then press the **Return** key.

→ *The Get Contents window displays.*
The shortcut must already exist. The owner and the administrator are the only ones who can edit the shortcut.
4. Enter the numbers of the tasks that you want to modify in the **Task number(s)** field.
5. Select the **Modify** menu selection.

→ *You are now in the Keep mode. The task window for the task you have selected displays.*
6. Make any required changes to the fields.

→ *You must select an action in order to complete the modification. You can change the data for the task, the action for the task, or both.*

Note

The default action for the task is the one currently associated with the task. In this way, you can press the **Return** key twice to complete the modification of task data without changing the task action.

7. Press the **Return** key, select the appropriate action, and then press the **Return** key again. → *The next task to be modified displays.*
8. Repeat steps 6 and 7 until all selected tasks are modified. → *After the last task has been modified, a prompt displays asking if you want to save your changes.*
9. Enter **Y** to save the changes. → *The Get Contents window displays.*

Chapter 4

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General Information

The Dictionary allows you to assign names to agents, splits/skills, VDNs, vectors, and other parameters, and to customize calculations. The Dictionary contains all the database items used in the calculations.

The Dictionary subsystem allows you to perform the following functions:

- Enter *CentreVu* CMS login IDs and corresponding agent names.
- Assign names to splits/skills, trunk groups, call work codes, ACDs, AUX reason codes, logout reason codes, VDNs, and vectors.
- Create agent groups.
- Modify agent, split/skill, and trunk string values.
- View standard *CentreVu* CMS database items and calculations.
- Define your own calculations, constants, and custom database items.
- Globally search for anything in the Dictionary subsystem and search for patterns from any data entry field.
- Obtain a report on most parts of the Dictionary subsystem.

The Dictionary subsystem menu is shown in Figure 4-1.

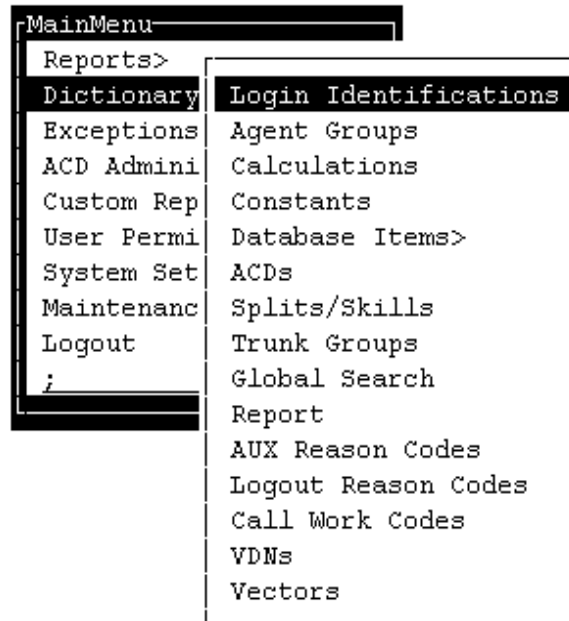


Figure 4-1: Dictionary Menu

Note

VDNs and Vectors items display on your menu only if you have purchased the Vectoring feature.

Dictionary Rules

The following rules pertain to the Dictionary subsystem:

- Names (synonyms) must begin with an alphabetic character.
- Dictionary names can have from 1 to 20 characters. Names can include the underscore (_), blank (), comma (,), period (.), single quotes ('), and plus sign (+).

Note

Blanks are allowed in all Dictionary names except Calculation and Constant names.

- Descriptions in the Dictionary can have from 1 to 50 characters. Descriptions can include all printable characters except the semicolon (;), backslash (\), grave accent (`), tilde (~), double quotes ("), pipe (|), asterisk (*), and question mark (?).
- Names must be unique within each section of the dictionary—that is, you can name trunk group 1 “sales” and split/skill 1 “sales,” but you cannot name split/skill 1 “sales” and split/skill 2 “sales.”
- Pattern searching is allowed for string fields. For example, if you know your field entry begins with the letters “ac,” you can enter “ac*” in the field. The asterisk (*) matches any characters that follow the “ac.” The result may be several matches, no match, or only one match. If you enter only “*” in the field or leave the field blank, you get a list of every name in the dictionary subsystem.

The question mark (?) searches on a single character. For example, if you search on the letters “ac,” and you enter “ac?,” the question mark matches any single character that follows the “ac.”

Login Identifications

Agents use the login IDs to log into their voice terminals. *CentreVu* CMS uses the login IDs to identify measured ACD agents. After an agent's name is assigned to a login ID, *CentreVu* CMS windows and reports display that agent's name instead of the login ID number.

Things to Know Before You Start

- Entering agent names in the Dictionary is not required. However, *CentreVu* CMS administration windows and reports are easier to understand if agent names appear instead of login IDs. Depending on the amount of space on the report, agent names may be truncated.
 - *The CentreVu* CMS Dictionary listings are sorted alphabetically (collating sequence) based on the first character entered in the Agent name field. For example, if the agent is listed as Jane Brown, *CentreVu* CMS sorts on the J for Jane; it does *not* sort on the B for Brown. Real-time reports, however, do not display agent names alphabetically.
 - You cannot assign more than one agent name to the same login ID.
 - You cannot assign the same agent name to multiple login IDs.
 - You can use only numbers for login IDs.
 - The "Dictionary-Specific Rules" apply.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To view login IDs, you must have **read** permission for the Dictionary subsystem.
- To add, delete, or modify login IDs or agent names, you must have **write** permission for the Dictionary subsystem.
- See Chapter 7, "User Permissions," for more information.

**Relationships to
Other
Subsystems**

Reports

If you assign names to the login IDs, agent names appear on reports. If you make any additions or changes to login IDs, the changes do not appear on any real-time report that is currently running. You must exit the report, and then rerun the report to see the new agent name(s).

Timetable

You can place the Login Identifications window on a timetable. See Chapter 3, “Timetable and Shortcut,” for more information.

**Login
Identifications
Window**

You assign agent names to login IDs from the Login Identifications window shown in Figure 4-2. You can also use this window to add, delete, view, or modify login IDs. Table 4-1 describes the Login Identifications window fields.

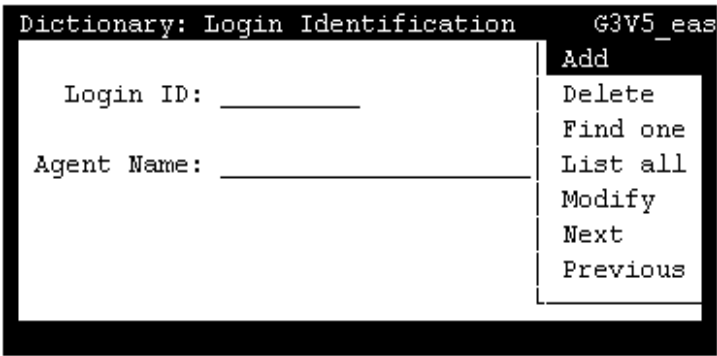


Figure 4-2: Login Identifications Window

Table 4-1: Login Identifications Window Fields

Field	Description																				
Login ID:	Enter the login ID number that you want to view, add, delete, or modify. Login IDs for a Generic 1 or Generic 3 switch without Expert Agent Selection (EAS) may be a number with 1 to 9 digits. Login IDs for a Generic 2 or System 85 switch are 4-digit numbers. The first digit is always greater than 0. Login IDs for a Generic 3 Version 2 or later switch with EAS must be 5 digits or fewer. Examples: <table> <tr> <td>For G1/G3 without EAS:</td> <td>1 (1-digit logins)</td> </tr> <tr> <td></td> <td>423 (3-digit logins)</td> </tr> <tr> <td></td> <td>1234567 (7-digit logins)</td> </tr> <tr> <td></td> <td>999999999 (9-digit logins)</td> </tr> <tr> <td>For G2/System 85:</td> <td>1234</td> </tr> <tr> <td></td> <td>1000</td> </tr> <tr> <td></td> <td>9999</td> </tr> <tr> <td>For G3V2 and later with EAS:</td> <td>92345</td> </tr> <tr> <td></td> <td>99999</td> </tr> <tr> <td></td> <td>333</td> </tr> </table>	For G1/G3 without EAS:	1 (1-digit logins)		423 (3-digit logins)		1234567 (7-digit logins)		999999999 (9-digit logins)	For G2/System 85:	1234		1000		9999	For G3V2 and later with EAS:	92345		99999		333
For G1/G3 without EAS:	1 (1-digit logins)																				
	423 (3-digit logins)																				
	1234567 (7-digit logins)																				
	999999999 (9-digit logins)																				
For G2/System 85:	1234																				
	1000																				
	9999																				
For G3V2 and later with EAS:	92345																				
	99999																				
	333																				
Agent name:	Enter the name of the agent that corresponds to the login ID. For the Login Identifications List all window, CMS lists names alphabetically (collating sequence) based on the first character entered in the Agent name field.																				

Agent Groups

You create and name, copy, or delete agent groups from the Agent Groups window. You can group agents to meet the needs of your call center without regard to split/skill assignment. For example, you can create a group for new employees, or groups for employees with special skills or qualifications.

Things to Know Before You Start

- Creating Agent Groups is an optional administration procedure.
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
- The Copy and Get contents action list item procedures are different from the standard procedures outlined in Chapter 2, “User Basics.” See “Nonstandard Action List Items and Procedures” later in this section for more information.

Prerequisite System Administration

- To view agent groups, you must have **read** permission for the Dictionary subsystem.
- To add, delete, or change an agent group, you must have **write** permission for the Dictionary subsystem.
- See Chapter 7, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

CentreVu CMS can generate reports on the groups you create. With these reports, you can compare agents in a group to each other or compare one entire group with other groups.



If you add or modify agent groups while displaying the real-time Agent Group report, you have to exit the report window and rerun the report to see the new or modified agent group information.

Timetable

You can place the Agent Groups window on a timetable. See Chapter 3, “Timetables and Shortcuts,” for more information.

Agent Groups Window

You create the agent groups from the Agent Groups window shown in Figure 4-3. Selecting **Add** creates a new, empty group with the name you entered. Selecting **Copy** brings up a window that allows you to copy an existing group to another name. Selecting **Delete** enables you to delete an entire group. Selecting **Get contents** enables you to add individual members to a group, or delete individual members from a group. Table 4-2 describes the Agent Groups window field.

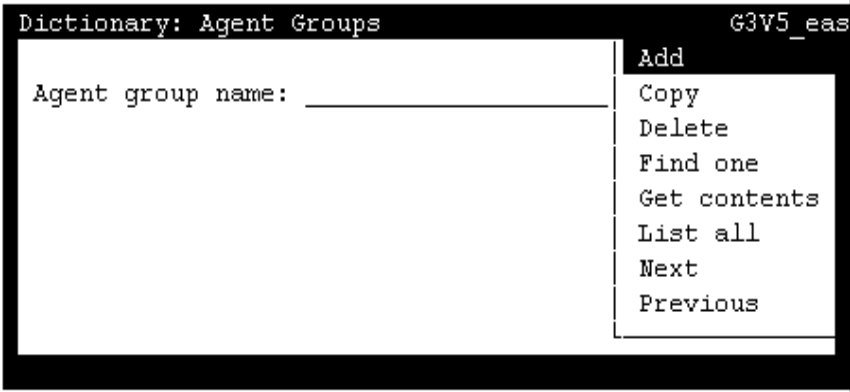


Figure 4-3: Agent Groups Window

Table 4-2: Agent Groups Window Field

Field	Description
Agent group name:	Enter the name of the group that you want to add, delete, view, or copy. The name can have up to 20 alphanumeric characters. The group name should be descriptive and reflect your reasons for creating the group.

Creating an Agent Group

To create an agent group, perform the following procedure.

1. Select Agent Groups from the Dictionary menu, and then press the **Return** key. → *The Agent Groups window displays.*
 2. Enter the name of the agent group you want to create. → *The cursor moves to the action list.*
 3. Select Add, and then press the **Return** key. → *Working appears on the status line until the action completes, and then Successful appears.*
-

Deleting an Agent Group

To delete an agent group, perform the following procedure.

1. Select Agent Groups from the Dictionary menu, and then press the **Return** key. → *The Agent Groups window displays.*
2. Enter the agent group name. → *The cursor moves to the action list.*
3. Select Delete, and press the **Return** key. → *Working appears on the status line until the action completes, and then Successful appears.*

Nonstandard
Action List Items
and Procedures

The Copy and Get contents action list items and procedures are different from the standard action list items and standard procedures described in Chapter 2, “User Basics.”

Copy

When you select Copy from the Agent Groups window, a secondary window displays as shown in Figure 4-4. This window enables you to create a new group from an existing group, or to rename a group without having to reenter the members of the group a second time. Table 4-3 describes the Agent Groups Copy window field.

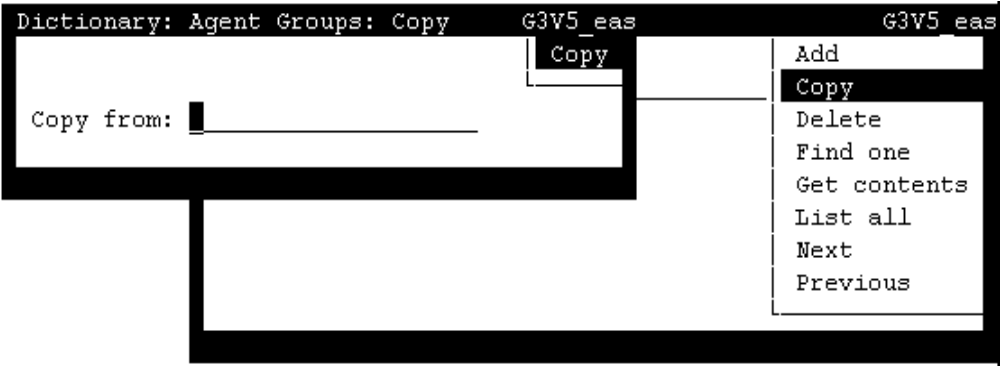


Figure 4-4: Agent Groups: Copy Window

Table 4-3: Agent Groups: Copy Window Field

Field	Description
Copy from: (Requires an entry)	Enter the name of the existing Agent Group that you want to copy in the Copy from field.

Copying an Agent Group or Renaming a Group

To copy or rename an agent group, perform the following procedure.

1. Select Agent Groups from the Dictionary menu, and then press the **Return** key. → *The Agent Groups window displays.*
2. Enter the *new* group name in the Agent group name field. → *The cursor moves to the action list.*
3. Select Copy and then press the **Return** key. → *The Agent Groups: Copy window displays.*
4. Enter the Agent Group name you want to copy *from* in the Copy from field. → *The cursor moves to the action list.*
5. Press the **Return** key again. → *Working appears on the status line until the action completes, and then Successful appears.*

If you are only renaming the group, and you no longer need the original group name, delete the original group from which you copied. This saves space in the database.

Get Contents

When you select `Get contents` from the Agent Groups window, a secondary window displays as shown in Figure 4-5. Select `Get contents` from the Agent Groups window to add members (agents) to, delete members from, or list the members of an existing agent group. Table 4-4 describes the `Get contents` window field.

Note

You must create the group before you can add members to or delete members (agents) from the group.

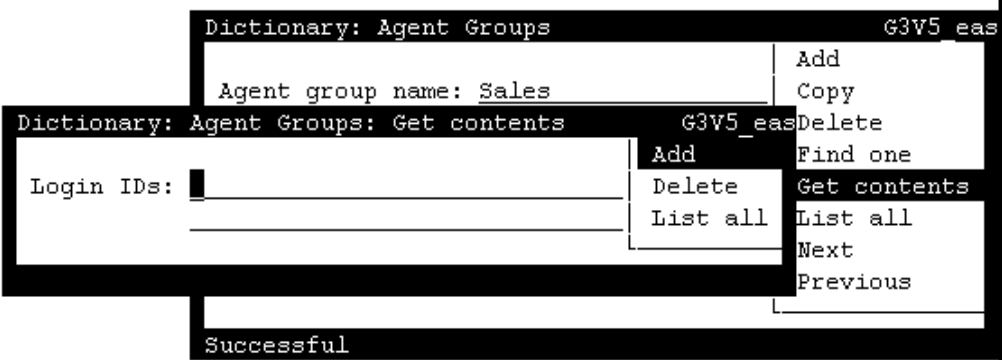


Figure 4-5: Get Contents Window

Table 4-4: Get Contents Window Field

Field	Description
Login IDs:	Enter the login ID numbers of the agents that you are adding, deleting, or listing for the group you entered in the Agent group name field. Enter a semicolon (;) to separate individual login IDs (1001;1004). Enter a dash (-) to define a range of values (1001-1004 includes login IDs 1001, 1002, 1003, and 1004). Ranges may not contain more than 1000 values. Leave the field blank to list all group members.

Adding Agents to an Agent Group

To add agents to an agent group, perform the following procedure.

1. Select Agent Groups from the Dictionary menu, and then press the **Return** key. → *The Agent Groups window displays.*
2. Enter the name of the agent group to which you want to add agents. → *The cursor moves to the action list.*
3. Select Get contents, and then press the **Return** key. → *The Agent Groups: Get contents window displays.*
4. Enter the login IDs you want to add to this group. → *The cursor moves to the action list.*
5. Select Add, and then press the **Return** key. → *Working appears on the status line until the action completes, and then Successful appears.*

Deleting Agents from an Agent Group

To delete agents from an agent group, perform the following procedure.

1. Select Agent Groups from the Dictionary menu, and then press the **Return** key. → *The Agent Groups window displays.*
2. Enter the name of the agent group from which you want to delete agents. → *The cursor moves to the action list.*
3. Select Get contents, and then press the **Return** key. → *The Agent Groups: Get contents window displays.*
4. Enter the login IDs you want to delete. → *The cursor moves to the action list.*
5. Select Delete, and then press the **Return** key. → *Working appears on the status line until the action completes, and then Successful appears.*

Listing All Agents in an Agent Group

To list all agents in an agent group, perform the following procedure.

1. Select `Agent Groups` from the Dictionary menu, and then press the `Return` key. → *The Agent Groups window displays.*
2. Enter the name of the agent group for which you want to list all agents. → *The cursor moves to the action list.*
3. Select `Get contents`, and then press the `Return` key. → *The Agent Groups: Get contents window displays.*
4. Press the `Return` key again. → *The cursor moves to the action list.*
5. Select `List all`, and then press the `Return` key. → *Working appears on the status line until the action completes, and then Successful replaces it. Another window displays listing the agent login IDs.*

Calculations

Calculation names are abbreviated names for calculations that are used to create reports. You can view or change standard calculations or create your own custom calculations for use in custom reports. The calculations for standard reports already exist in the Dictionary.

Things to Know Before You Start

- You cannot delete standard calculations.
 - You should identify your own calculations with an all lower-case letter format to distinguish them from the standard *CentreVu* CMS calculations, which have an all upper-case letter format.
 - You may adversely affect standard reports if you change a standard *CentreVu* CMS calculation. Reports will probably run, but the results may be different than expected.
 - Reports will not run if you embed calculations within calculations to more than three levels deep.
 - Reports will not run if you create calculations that reference each other in a circular fashion.
 - The standard *CentreVu* CMS calculations are listed in the *CentreVu™ CMS R3V5 Reports* (585-215-821) document, and the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document.
 - The “Dictionary-Specific Rules” apply.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To view calculations, you must have **read** permission for the Dictionary subsystem.
- To change or create a new calculation, you must have **write** permission for the Dictionary subsystem.
- See Chapter 7, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

Standard reports use calculations. You should become familiar with the calculations to better understand standard reports.

Custom Reports

You can use the standard *CentreVu* CMS calculations or create your own custom calculations to use in custom reports.

Note

You will receive an error message if you run a custom report that uses a calculation that is not in the Dictionary.

Calculations Window

Complete the Calculations window shown in Figure 4-6 to view standard calculations and add, delete, modify, or view your own calculations. Table 4-5 describes the Calculations window fields.

Dictionary: Calculations		All ACDs
Calculation name:		Add
Calculation:		Delete
Description:		Find one
		List all
		Modify
		Next
		Previous

Figure 4-6: Calculations Window

Table 4-5: Calculations Window Fields

Field	Description
Calculation name:	Enter the name of the calculation that you want to view, add to the database, modify, or delete. The name can have no more than 20 alphanumeric characters.
Note	Use lower-case letters in the name if you are creating your own calculation.
Calculation:	Enter the formula for the calculation. For example, the formula for the agent calculation “Average ACD Talk Time” is ACDTIME/ACDCALLS. Note: Spaces are allowed in calculations. Calculations can include the following: • Database items (for example, ACDCALLS for ACD calls) • Constants • Calculation(s) (nesting level is three, but a calculation can have as many calculation names as necessary) • The following arithmetic operators: + (add) - (subtract) * (multiply) / (divide) () (do first, as in standard mathematical operations).
Description:	Enter the description of the calculation. The common rules for Dictionary descriptions apply.

Constants

Constants are items with fixed numerical values that you can enter into the database and use in custom reports. There are no constants defined in *CentreVu* CMS when it is first installed.

Note

For a more complete description of Constants, see the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document.

Things to Know Before You Start

- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To view a constant, you need **read** permission for the Dictionary subsystem.
- To add, delete, or change a constant, you need **write** permission for the Dictionary subsystem.
- See Chapter 7, “User Permissions,” for more information.

Relationships to Other Subsystems

Custom Reports

Constants are used only in custom reports.

Constants Window

Complete the Constants window shown in Figure 4-7 to add, delete, modify, or view your own constants. Table 4-6 describes the Constants window fields.

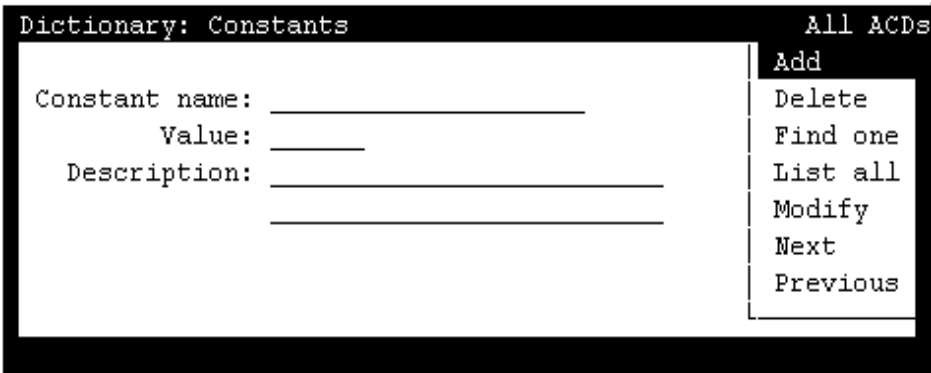


Figure 4-7: Constants Window

Table 4-6: Constants Window Fields

Field	Description
Constant name:	Enter the name of the constant that you want to view, add, delete, or modify. The common rules for entering names apply.
Value:	Enter the numerical value of the constant. The range is -999999 to +9999999.
Description:	Enter the description of the constant.

Database Items

Selections from the Database Items menu, shown in Figure 4-8, contain the names for specific types of information stored in the *CentreVu* CMS database. Database items may store login IDs, extension numbers, split or skill numbers, VDNs, vector numbers, trunk numbers, trunk group numbers, call work codes, AUX reason codes, and logout reason codes. In addition, database items may store statistical data compiled from your call center's activity. Examples of this statistical data are the number of ACD calls, the wait time for calls before being answered, and how much time an agent spent on ACD calls.

The Database Items subsystem is divided into the following categories:

- Agent String Values
- Split/Skill String Values
- Trunk String Values
- Standard *CentreVu* CMS Items
- Custom Items.

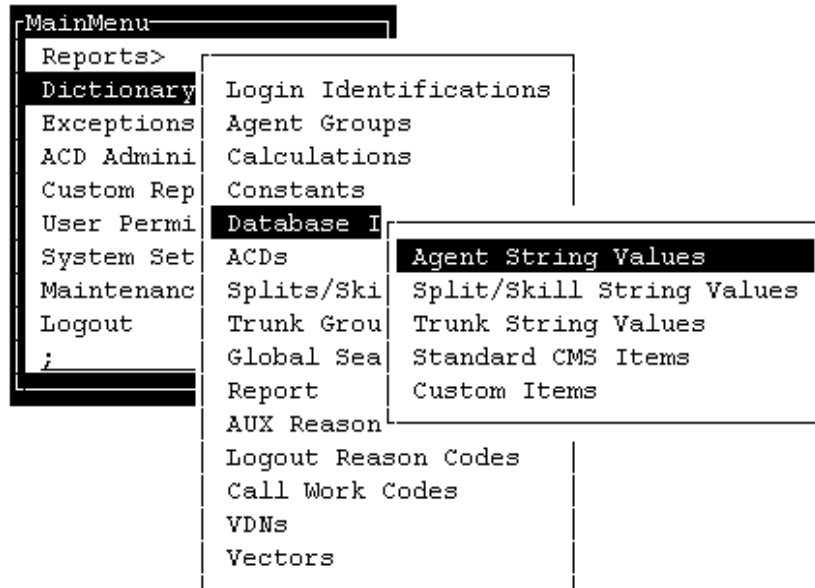


Figure 4-8: Database Items Menu

Agent String Values

Agent string values are the descriptive words on reports dealing with agents. These words, such as ACD, ACW, or AUX, describe the value of the data. Strings are changed to the administered values only when they appear as data in a report. The report heading is not affected. You can change the *CentreVu* CMS default values for these words to correspond to your own requirements from the Agent String Values window. For example, you could change ACW to Wrap for wrap-up work.

Things to Know Before You Start

- If you assign values that are longer than the field lengths allowed on standard reports, the values are truncated when they are displayed on those reports. You can, however, create a similar custom report that accommodates the longer string values.
- If you do **not** assign different values to the agent string values, the default values are used.
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To view agent string values, you need **read** permission for the Dictionary subsystem.
- To change any value, you need **write** permission for the Dictionary subsystem.
- See Chapter 7, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

Any change to the agent string values affects what you see in the descriptive data (word) fields on your agent reports.

Timetable

You can place the Agent String Values window on a timetable. See Chapter 3, “Timetable and Shortcut,” for more information.

Agent String Values Window

The Agent String Values window shown in Figure 4-9 displays the default agent string values when the window first opens. Complete the Agent String Values window to modify the default agent string values. Table 4-7 describes the Agent String Values window fields.

Dictionary: Database Items: Agent String Values		G3V5_eas
		Modify
Work Mode	Call Direction	
ACD: <u>ACD</u>	IN: <u>IN</u>	
ACW: <u>ACW</u>	OUT: <u>OUT</u>	
AUX: <u>AUX</u>		
AVAIL: <u>AVAIL</u>	Call Origination	
DACD: <u>DACD</u>	PHONE: <u>PHONE</u>	
DACW: <u>DACW</u>	KEYBOARD: <u>KEYBOARD</u>	
OTHER: <u>OTHER</u>		
RINGING: <u>RING</u>	Call Destination	
UNKNOWN: <u>UNKNOWN</u>	PBX: <u>PBX</u>	
UNSTAFF: <u>UNSTAFF</u>	OFF: <u>OFF</u>	
Agent Trace Work Mode	Call Handling Preference	
LOGON: <u>LOGON</u>	LEVEL: <u>LVL</u>	
LOGOFF: <u>LOGOFF</u>	NEED: <u>NEED</u>	

Figure 4-9: Agent String Values Window

Table 4-7: Agent String Values Window Fields

Field	Description
Work Mode	To change any of the Work Mode default names, enter the new descriptive word in the appropriate Work Mode field. Agents can be in any one of the following work states: ACD The agent is on an ACD call. ACW The agent is in the after call work state. AUX The agent is in the auxiliary work state. AVAIL The agent is available to take an ACD call. DACD The agent is on a direct agent ACD call. DACW The agent is in the after call work state for a direct agent ACD call. OTHER The agent: • has just logged in and CMS has not yet been notified of the agent's state • is dialing to place an extension call while in Auto-In/Manual-In (AI/MI) • is in AI/MI and has an extension call ringing, or has put a call on hold and has taken no further phone-related action. RINGING An ACD call is ringing at the agent's voice terminal, and the agent is not doing anything else. UNKNOWN <i>CentreVu</i> CMS does not recognize the current state. UNSTAFF The agent is not logged into <i>CentreVu</i> CMS (not staffed).
Agent Trace Work Mode	To modify the Agent Trace Work Mode default names, enter the new descriptive word next to LOGON or LOGOFF. • LOGON: An agent logged in. • LOGOFF: An agent logged out and is not available to take ACD calls.

Table 4-7: Agent String Values Window Fields

Field	Description
Call Direction	To change the Call Direction default names, enter the new descriptive word next to IN or OUT. • IN: The agent is currently on an incoming call. • OUT: The agent is currently on an outbound call.
Call Origination	To change the Call Origination default names, enter the new descriptive word next to PHONE or KEYBOARD. Agents can be on either of the following types of outbound calls: • PHONE: The agent dialed an outbound call using the voice terminal (telephone) dialing pad. • KEYBOARD: The agent dialed an outbound call using the computer keyboard.
Note	Call origination is useful only with the Outbound Call Management (OCM) feature. For more information on OCM, see the documentation shipped with your OCM software package.
Call Destination	To change the Call Destination default names, enter the new descriptive word next to PBX or OFF. • PBX: Internal to the switch. • OFF: External to the switch.
Call Handling Preference	To change the Call Handling Preference default names, enter the new descriptive word next to LEVEL or NEED. • LEVEL: The agent's call handling preference is by skill level. • NEED: The agent's call handling preference is by greatest need.

Split/Skill String Values

Split/skill string values are the descriptive words on the Split/Skill Call Profile reports. The words are used to describe the value of the data. From the Split/Skill String Values window, you can change the *CentreVu* CMS default string values to correspond to your own requirements.

Things to Know Before You Start

- If you assign values that are longer than the field lengths allowed on standard reports, the values are truncated to fit on those reports. You can, however, create a similar custom report that accommodates the longer string values.
- If you do **not** assign different values to the split/skill string values, the default values are used.
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To view any of the split/skill string values, you need **read** permission for the Dictionary subsystem.
- To change any split/skill string values, you need **write** permission for the Dictionary subsystem.
- See Chapter 7, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

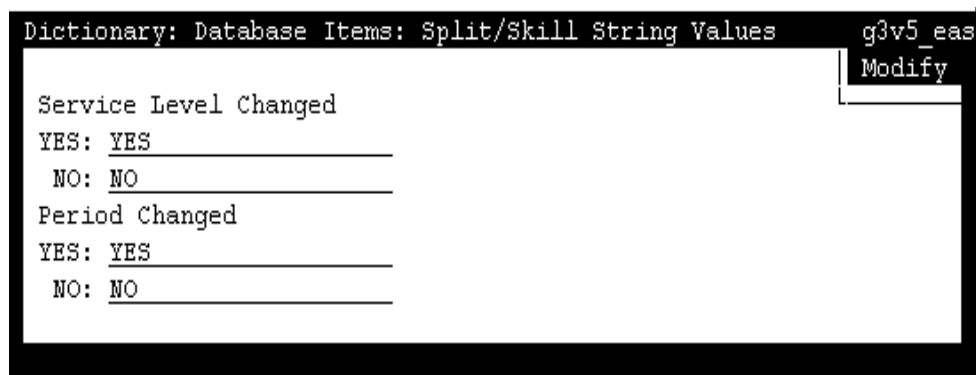
Any change you make in a report affects what you see in the corresponding fields on the Split/Skill Call Profile report.

Timetable

You can place the Split/Skill String Values window on a timetable. See Chapter 3, “Timetable and Shortcut,” for more information.

Split/Skill String Values Window

Complete the Split/Skill String Values window shown in Figure 4-10 to modify the default values for split or skill strings. Table 4-8 describes the Split/Skill String Values window fields.



Dictionary: Database Items: Split/Skill String Values g3v5_eas
Modify

Service Level Changed
YES: YES
NO: NO

Period Changed
YES: YES
NO: NO

Figure 4-10: Split/Skill String Values Window

Table 4-8: Split/Skill String Values Window Fields

Field	Description
Service Level Changed	On the Split/Skill Call Profile window (see Chapter 6, “ACD Administration”), you can change the service levels at any time. From the Split/Skill String Values window, you can change the following Service Level Changed default values that appear on the Split/Skill Call Profile report: • YES: If you have changed the service level on the Split/Skill Call Profile, enter the descriptive word that you want to appear on the report. • NO: If you have not changed the service level on the Split/Skill Call Profile, enter the descriptive word that you want to appear on the report.
Period Changed	On the Split/Skill Call Profile report (both real-time and historical), there are ten time increments of administrable length. You can modify the following Period Changed default values that appear on the Split/Skill Call Profile report: • YES: If you have changed the time periods on the Split/Skill Call Profile setup, enter the descriptive word that you want to appear on the report. If you want to change YES, enter your descriptive word. • NO: If you have not changed the time periods on the Split/Skill Call Profile, enter the descriptive word that you want to appear on the report. If you want to change NO, enter your descriptive word.

Trunk String Values

Trunk string values are the descriptive words such as IDLE, HOLD, or QUEUED on trunk reports. These words appear in report data fields; they do not appear as headings. From the Trunk String Values window, you can change the *CentreVu* CMS default values that appear on these reports to any values that fit your particular needs.

Things to Know Before You Start

- If you assign values that are longer than the field lengths allowed on standard reports, the values are truncated when they are displayed on those reports. You can, however, create a similar custom report that accommodates the longer string values.
- If you do **not** assign different values to the trunk string values, the default values are used.
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To view any trunk string values, you need **read** permission for the Dictionary subsystem.
- To make any changes to trunk string values, you need **write** permission for the Dictionary subsystem.
- See Chapter 7, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

Any changes you make to the trunk string values affect what you see in the corresponding fields on trunk reports.

Timetable

You can place the Trunk String Values window on a timetable. See Chapter 3, “Timetable and Shortcut,” for more information.

Trunk String Values Window

Complete the Trunk String Values window shown in Figure 4-11 to change the default trunk string values. Table 4-9 describes the Trunk String Values window fields.

Dictionary: Database Items: Trunk String Values		G3V5_eas
Trunk State	Call Priority (non-vectoring)	Modify
IDLE: <u>IDLE</u>	YES: <u>YES</u>	
SEIZED: <u>SEIZED</u>	NO: <u>NO</u>	
QUEUED: <u>QUEUED</u>		
CONN: <u>CONN</u>	Call Priority (vectoring)	
DABN: <u>DABN</u>	LOW: <u>LOW</u>	
FBUSY: <u>FBUSY</u>	MED: <u>MED</u>	
FDISC: <u>FDISC</u>	HIGH: <u>HIGH</u>	
HOLD: <u>HOLD</u>	TOP: <u>TOP</u>	
MBUSY: <u>MBUSY</u>		
RINGING: <u>RING</u>	Call Direction	
UNKNOWN: <u>UNKNOWN</u>	IN: <u>IN</u>	
	OUT: <u>OUT</u>	
Queue Type		
MAIN: <u>MAIN</u>	All Trunks Busy	
BACKUP: <u>BACKUP</u>	YES: <u>YES</u>	
	NO: <u>NO</u>	

Figure 4-11: Trunk String Values Window

Table 4-9: Trunk String Values Window Fields

Field	Description
Trunk State	To change any of the Trunk State default names, enter the new descriptive word next to any of the following: IDLE The trunk is waiting for a call. SEIZED A call is holding the trunk, either incoming or outgoing. QUEUED An ACD call has seized a trunk and is queued to a split or skill waiting for an agent to become available. CONN The caller and an agent are connected on a call. DABN The caller abandoned the call. FBUSY The caller receives a forced busy signal (Generic 2, Generic 3, or ECS with Call Vectoring). FDISC The caller receives a forced disconnect (Generic 2, Generic 3 or ECS with Call Vectoring). HOLD The agent has put the caller on hold. MBUSY The trunk is out of service for maintenance purposes. RINGING The call is ringing at an agent's voice terminal. UNKNOWN <i>CentreVu</i> CMS does not recognize the trunk state.
Queue Type	To change the Queue Type default names, enter the new descriptive name next to MAIN or BACKUP. The name you enter here will appear, instead of the default, in any real-time reports containing the trunk database item QUETYPE. (Standard reports do not contain this item.) • MAIN: The call is queued to a split or skill as a result of a "queue to main split/skill" vector command. • BACKUP: The call is queued to a split or skill as a result of a vector command other than "queue to main split/skill".

Table 4-9: Trunk String Values Window Fields

Field	Description
Call Priority (Non-vectoring)	To change the Call Priority default names, enter the new descriptive name next to YES or NO. • YES: The call occupying the trunk has priority entering the split. • NO: The call does not have priority entering the split. The name you enter here will appear, instead of the default name, in real-time reports containing the trunk database item PRIORITY. (Standard reports do not contain this item.)
Call Priority (Vectoring)	To change the Call Priority default names, enter the new descriptive name next to LOW, MED, HIGH, or TOP. The priority level at which calls on a trunk queue to a split or skill is specified using either the “queue to main split/skill” or “check backup split/skill” command in the vector processing the call. The name you enter here will appear, instead of the default name, in real-time reports containing the trunk database item PRIORITY. (Standard reports do not contain this item.) • LOW: The call occupying the trunk is queued to a split or skill at the lowest priority level. • MED: The call occupying the trunk is queued to a split or skill at the second lowest priority level. • HIGH: The call occupying the trunk is queued to a split or skill at the second highest priority level. • TOP: The call occupying the trunk is queued to a split or skill at the highest priority level.
Call Direction	To change the Call Direction default names, enter the new descriptive word next to IN or OUT. • IN: The trunk is currently on an incoming call. • OUT: The trunk is currently on an outbound call.
All Trunks Busy	To change the All Trunks Busy default names, enter the new descriptive word next to YES or NO. • YES: All trunks in the trunk group are currently busy (in use or maintenance). • NO: Not all trunks in the trunk group are busy.

Standard CMS Items

Standard CMS items (database items) are names of columns in *CentreVu* CMS database tables. *CentreVu* CMS uses these tables to collect, store, and retrieve ACD data.

How to Use the Tables

Each column in a table represents a specific type of ACD data such as the number of ACD calls, the number of abandons, or the length of time on ACD calls. Standard database items cannot be **modified** or **deleted**. However, you are allowed access to the information about each database item, the description for that item, and the table(s) where the item appears.

Table 4-10 is an example of a Current Real-Time Agent table with standard *CentreVu* CMS database item column headings. It is included to help you understand how *CentreVu* CMS uses these tables.

Table 4-10: Current Real-Time Agent Example

EXTENSION	SPLIT	LOGID	LOGONSTART	WORKMODE	STARTED	DIRECTION	CHANGED	>*
1000	1	4000	8:00	AVAIL	8:00	NULL	8:00	>
1001	1	5966	7:58	ACD	8:04	IN	8:04	>
1002	1	2200	7:59	ACD	8:03	IN	8:03	>
.	.	.	.	.	.	.	.	>
.	.	.	.	.	.	.	.	>

> * indicates that more database item column headings follow, and the . (dots) indicate that more data follows down the table.

The following list describes Table 4-10 Column Headings:

EXTENSION	The extension number that the agent is using.
SPLIT	The split number to which the extension is assigned or the skill into which the agent is logged.
LOGID	The login identification the agent used to staff the extension.
LOGONSTART	The time the agent logged into the switch.
WORKMODE	The agent's current work mode (AVAIL, AUX, ACD, ACW, OTHER, DACD, DACW).
STARTED	The time of day the agent started this work mode.
DIRECTION	The direction (IN, OUT, NULL) of the current call.
CHANGED	The time of day the agent started a new activity.

As indicated in this brief example, each extension has an entry for each agent activity. This example also indicates that these tables can become quite large. Initially, you will probably look up database items for their definitions. Later, you will use them most when creating custom reports. See the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for more information on database items.

Things to Know
Before You Start

- You cannot modify or delete standard database items.
- You can only view information about each database item. This section of the Dictionary is **read** only.
- The Dictionary subsystem menu shown in Figure 4-1 applies.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System
Administration

- You need **read** permission for the Dictionary subsystem to view the database items.

Relationships to
Other Subsystems

Custom Reports
You use the database items when creating custom reports. See the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for more information.

Standard CMS Items
Window

Complete the Standard CMS Items window shown in Figure 4-12 to view standard *CentreVu* CMS items. Table 4-11 describes the Standard CMS Items window fields.

Dictionary: Standard CMS Items

All ACDs

Find oneList allNextPrevious

Database item:Description:Table:

Figure 4-12: Standard CMS Items Window

Note

You can use pattern searching in any field in the Standard CMS Items window.

Table 4-11: Standard CMS Items Window Fields

Field	Description
Database item:	Enter the name of the database item that you want to look up.
Description:	Describes the database item. If you know the description, enter it here.
Table:	This field can be used to limit the search for a database item to a single table. If this field is left blank, all database tables are searched.

Custom Items

Define your own database items, which are stored in their own tables within the *CentreVu* CMS database, from the Custom Items window. This allows you to combine your own data with *CentreVu* CMS data on custom reports. You can also change or delete your own database items.

Note

See the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for more information on using and creating your own custom database items.

Prerequisite System Administration

- You need **write** permission for the Dictionary subsystem to create custom database items.
- You must first create the table in *INFORMIX** before you create a custom database item.

Relationships to Other Subsystems

Custom Reports

If you attempt to run a custom report that uses a database item that has **not** been added to the Dictionary, you receive an error message.

Custom Items Window

Complete the Custom Items window shown in Figure 4-13 to add, delete, modify, or view your own custom database items. Table 4-12 describes the Custom Items window fields.

Dictionary: Custom Items

All ACDs

Database item: _____

Description: _____

Table: _____

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 4-13: Custom Items Window

* INFORMIX is a registered trademark of Informix Software, Inc.

Table 4-12: Custom Items Window Fields

Field	Description
Database item:	Enter the name of the custom database item that you want to add, modify, delete, or view. The custom database item must be unique within the table that you specify in the table field. Item names can have up to 20 alphanumeric characters.
Description:	Enter a description of the database item. You can add, modify, or delete this description. Item descriptions can be up to 50 characters.
Table:	Enter the name of the table that contains this particular database item. Table names must consist of alphabetic characters.

ACDs

You assign names to any real or pseudo-ACDs from the ACDs window.

Things to Know Before You Start

- You can add, delete, or change an ACD name regardless of the ACD you are currently logged into. For example, you could be logged into *ACD 1* and change the name for *ACD 3*.



This change does not appear on the changed ACD's window border until you open a new window.

- The "Dictionary-Specific Rules" apply.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To add, delete, or change an ACD's name, you need **write** permission for the Dictionary subsystem and for the ACD.
 - To view ACD names, you need **read** permission for the Dictionary subsystem and for the ACD.
 - See Chapter 7, "User Permissions," for more information on assigning read and write permission.
-

Relationships to Other Subsystems

All Subsystems

The name that you assign to a specific ACD appears on all reports and window titles associated with that particular ACD (real or pseudo).

Timetable

You can place the ACDs window on a timetable. See Chapter 3, "Timetable and Shortcut," for more information.

ACDs Window

Complete the ACDs window shown in Figure 4-14 to add, modify, delete, or view ACD names. Table 4-13 describes the ACD's window fields.

Dictionary: ACDs

ACD name: _____

ACD number: _____

Description: _____

All ACDs

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 4-14: ACDs Window

Table 4-13: ACDs Window Fields

Field	Description
ACD name :	Enter the ACD name that you want to add, delete, modify, or view. The name must begin with a letter and can have no more than 20 alphanumeric characters.
ACD number :	Enter a number between 1 and 26 that corresponds to the name entered in the ACD name field.
Description:	Enter any descriptive information about this ACD, up to 50 characters.

Splits/Skills

Assign names to your ACD splits or skills from the Splits/Skills window. The split or skill names then appear on your split or skill reports, making your reports easier to identify and read.

Things to Know Before You Start

- Split or skill names should reflect the configuration of your splits or skills and ACD(s). For example, if you want splits in your system to be divided according to Sales, Customer Service, and Wholesale, assign those names to the splits that handle those areas of the business. Or, if you want skills in your system to be divided by language, such as French, Spanish, and German, assign those names to the skills that handle calls in those languages.
 - When naming splits or skills, you may want to be consistent with the names given by your switch administrator.
 - If you assign a name to a split or skill, the split or skill number no longer appears on split or skill reports or windows. The split or skill name appears instead.
 - The “Dictionary-Specific Rules” apply.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To list the assigned split or skill names, you need **read** permission for the Dictionary subsystem and for the appropriate split/skill.
- To add, delete, or change a split or skill name, you need **write** permission for the Dictionary subsystem and the appropriate split or skill.
- See Chapter 7, “User Permissions,” for more information on assigning read/write permission.

Relationships to Other Subsystems

Reports

When you assign a split or skill name, that name appears on all Splits/Skills windows and Splits/Skills reports (real-time and historical). If you make any additions or changes to split or skill names, the changes do not appear on any real-time report that is currently running. You must exit the report and rerun it to see the new split or skill name.

Exceptions

If you assign exceptions to splits or skills, the split or skill names you assign appear in the exceptions text. If you change a split or skill name, the new name appears in the exception text for all exceptions logged after the change.

Forecast

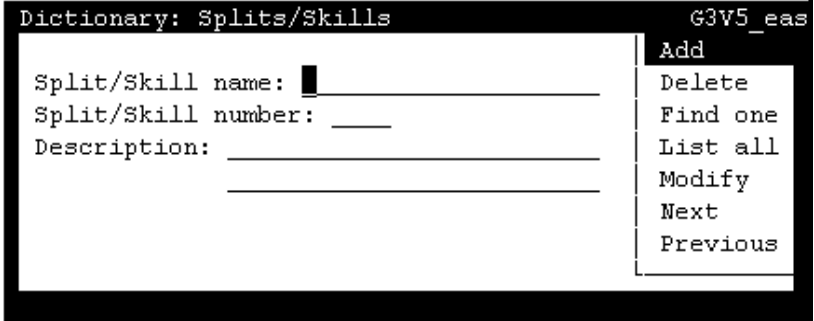
Split or skill names appear on forecast reports.

Timetable

You can place the Splits/Skills window on a timetable. See Chapter 3, "Timetable and Shortcut," for more information.

Splits/Skills Window

Complete the Splits/Skills window shown in Figure 4-15, to add, delete, modify, or view split or skill names. Table 4-14 describes the Splits/Skills window fields.



The screenshot shows a window titled "Dictionary: Splits/Skills" with a user identifier "G3V5_eas" in the top right corner. The window contains three input fields: "Split/Skill name:" with a cursor, "Split/Skill number:" with a small box, and "Description:" with two lines. To the right of these fields is a menu with the following options: "Add", "Delete", "Find one", "List all", "Modify", "Next", and "Previous".

Figure 4-15: Splits/Skills Window

Table 4-14: Splits/Skills Window Fields

Field	Description
Split/Skill name:	Enter the name that you want to add, delete, modify, or view for this split or skill. The name must begin with a letter and can have no more than 20 alphanumeric characters.
Split/Skill number:	Enter the split or skill number that corresponds to the name entered in the Split/Skill name field.
Description:	Enter any descriptive information, up to 50 characters, for this split or skill.

Trunk Groups

You assign names to your ACD trunk groups from the Trunk Groups window. The trunk group names appear on reports, making your reports easier to identify and read.

Things to Know Before You Start

- A trunk group name can be a published phone number (that begins with an alphabetic character), a variation of an associated split or skill name, or any other name that reflects the configuration of your trunk groups, splits or skills, and ACD(s).
 - When naming trunk groups, you may want to be consistent with the names given by your switch administrator.
 - If you assign a trunk group name, the name appears on trunk group reports or windows instead of the trunk group number.
 - The “Dictionary-Specific Rules” apply.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To list the assigned trunk group names, you need **read** permission for the Dictionary subsystem and for the appropriate trunk group.
 - To add, delete, or change a trunk group name, you need **write** permission for the Dictionary subsystem and the appropriate trunk group.
 - See Chapter 7, “User Permissions,” for more information on assigning read/write permission.
-

Relationships to Other Subsystems

Reports

When you assign a trunk group name, that name appears on all Trunk Group windows and Trunk Groups reports (real-time and historical). If you make any additions or changes to trunk group names, the changes do not appear on any real-time report that is currently running. You must exit the report and rerun it to see the new trunk group name(s).

Exceptions

If you assign exceptions to trunk groups, the trunk group names you assign appear in the exceptions text. If you change a trunk group's name, the new name appears in the exception log text for all exceptions logged after the change.

Forecast

Trunk group names appear on forecast reports.

Timetable

You can place the Trunk Groups window on a timetable. See Chapter 3, "Timetable and Shortcut," for more information.

Trunk Groups Window

Complete the Trunk Groups window shown in Figure 4-16 to add, delete, modify, or view trunk group names. Table 4-15 describes the Trunk Groups window fields.

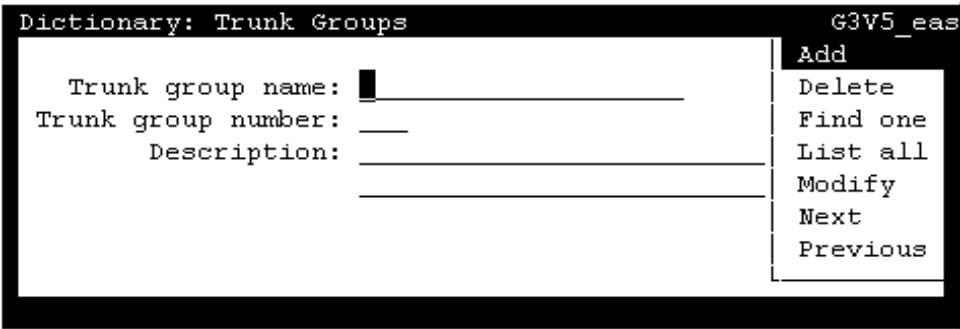


Figure 4-16: Trunk Groups Window

Table 4-15: Trunk Groups Window Fields

Field	Description
Trunk group name:	Enter the name that you want to add, delete, modify, or view for this trunk group. The name must begin with a letter and can have no more than 20 alphanumeric characters.
Trunk group number:	Enter the trunk group number that corresponds to the name entered in the Trunk group name field.
Description:	Enter any descriptive information, up to 50 characters, about this trunk group.

Global Search

You can search for anything in the Dictionary by selecting Global Search from the MainMenu. This might be a login ID or a group of login IDs; split/skill, trunk group, or ACD names; database items; calculations; agent names; etc.

Things to Know Before You Start

- You can search on any pattern, for example, ACD.
- You can search on any pattern that includes an asterisk (*) or question mark (?). For example, Split*. See Chapter 2, “User Basics,” for the basic search rules.



Everything in the Dictionary subsystem displays if you enter an asterisk (*) by itself. This takes a long time and uses a lot of processor time.

- There is a difference between searching on upper- or lower-case letters.
 - The “Dictionary-Specific Rules” apply.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To search for anything in the Dictionary, you must have **read** permission for the Dictionary subsystem.

Global Search Window

Complete the Global Search Input window shown in Figure 4-17 to run a global search of the Dictionary. Table 4-16 describes the Global Search Input window fields.

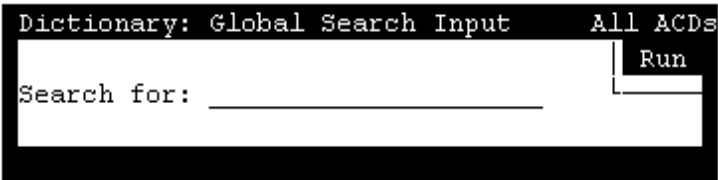


Figure 4-17: Global Search Input Window

Table 4-16: Global Search Input Window Fields

Field	Description
Input Window–Search for:	Enter the search pattern.
Output Window–Value matched (Display only)	The matches for your search pattern.
Output Window–Field matched (Display only)	The name of the field in the Dictionary subsystem that corresponds to the Value matched field.
Output Window–In submenu (Display only)	The Dictionary submenu where your search pattern was found.
Output Window–Name (Display only)	The name that corresponds to the Value matched field.

Report

You can have sections of the Dictionary printed, sent to a file, or displayed in a set of reports by selecting Report from the Dictionary menu. There is one report for each section of the Dictionary. You can also produce a report on all the Dictionary sections listed.

Prerequisite System Administration

- You need **read** permission for the Dictionary subsystem to obtain a report.

Relationships to Other Subsystems

Timetable
You can place the Report Input window on a timetable. See Chapter 3, “Timetable and Shortcut,” for more information.

Report Window

Complete the Report Input window shown in Figure 4-18 to get a report of any section of the Dictionary listed on the Report Input window. Table 4-17 describes the Report Input window fields.

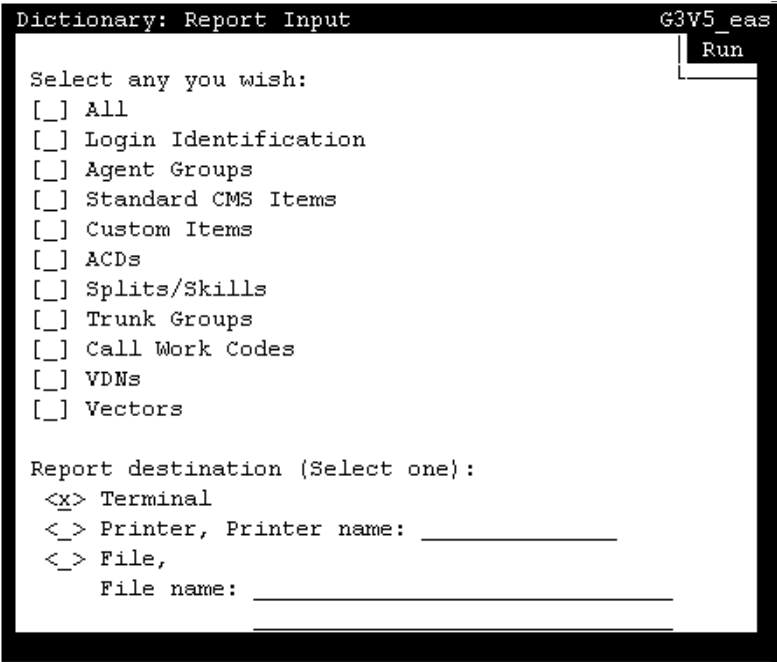


Figure 4-18: Report Input Window

Table 4-17: Report Input Window Fields

Field	Description
Select any you wish:	Enter an x next to the sections of the Dictionary for which you want a report. If you want all the Dictionary sections listed, select All. The All selection takes a long time to run. You may want to schedule this selection for off-peak hours.
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you select Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you select File, enter a file name. If the file name already exists, the existing file is overwritten with the new report data. The file is in your home directory in the <i>UNIX</i>[*] system/<i>Solaris</i>[†] system (<i>/usr/<your login ID></i>) unless you specify a full path name.

* UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

† Solaris is a trademark of Sun Microsystems, Inc.

AUX Reason Codes

AUX Reason Codes enable a call center to track an agent's time more precisely when the agent is in the AUX state. The agent can specify exactly why the AUX state is used, such as lunch or meetings.

You can add, delete, modify, or view AUX reason code names by selecting AUX Reason Codes from the Dictionary menu. These names then appear in the AUX Reason Code standard real-time and historical reports.

Things to Know Before You Start

- AUX reason codes are single digits, 0 through 9.
- AUX reason code names can be up to 20 characters in length.
- AUX Reason Code 0 is used for cases when the switch automatically puts an agent into AUX.
- EAS is required to use the AUX Reason Codes feature.

Prerequisite System Administration

- To view AUX reason code names, you must have **read** permission for the Dictionary subsystem. See Chapter 7, "User Permissions," for more information.
- To add, delete, or modify an AUX reason code name, you must have **write** permission for the Dictionary subsystem. See Chapter 7, "User Permissions," for more information.

Relationships to Other Subsystems

Standard Real-Time Reports

AUX reason code names appear on real-time reports that include the agent state. AUX reason code names also appear on a report showing numbers of agents in each AUX reason code. If you make any changes to AUX reason code names, the report must be rerun to see the changes.

Standard Historical Reports

Interval, daily, weekly, and monthly historical reports are available for AUX reason codes. The AUX reason code names are used in the standard reports. If you make any changes to AUX reason code names, the report must be rerun to see the changes.

Timetable

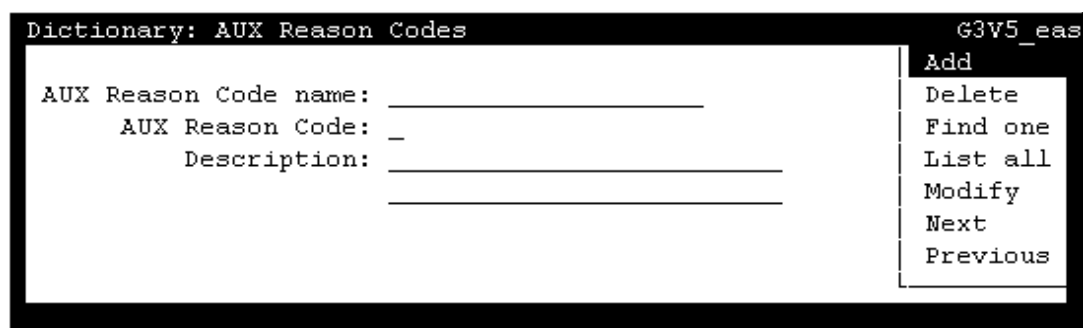
You can place the AUX Reason Codes window in a timetable. See Chapter 3, "Timetable and Shortcut," for more information.

Exceptions

Agent exceptions historical reports use the names administered for the AUX reason codes when agent time in AUX exceptions have been recorded. The Real-time Exceptions Log displays AUX reason code names when it logs agent time in AUX exceptions.

AUX Reason Codes Window

Complete the AUX Reason Codes window shown in Figure 4-19 if you want names associated with your AUX reason codes to appear in the standard AUX Reason Code reports. Table 4-18 describes the AUX Reason Codes window fields.



The screenshot shows a window titled "Dictionary: AUX Reason Codes" with a user identifier "G3V5_eas" in the top right corner. The main area contains three input fields: "AUX Reason Code name:" followed by a long text box, "AUX Reason Code:" followed by a short text box containing an underscore, and "Description:" followed by a long text box. On the right side, there is a vertical menu with the following options: "Add", "Delete", "Find one", "List all", "Modify", "Next", and "Previous".

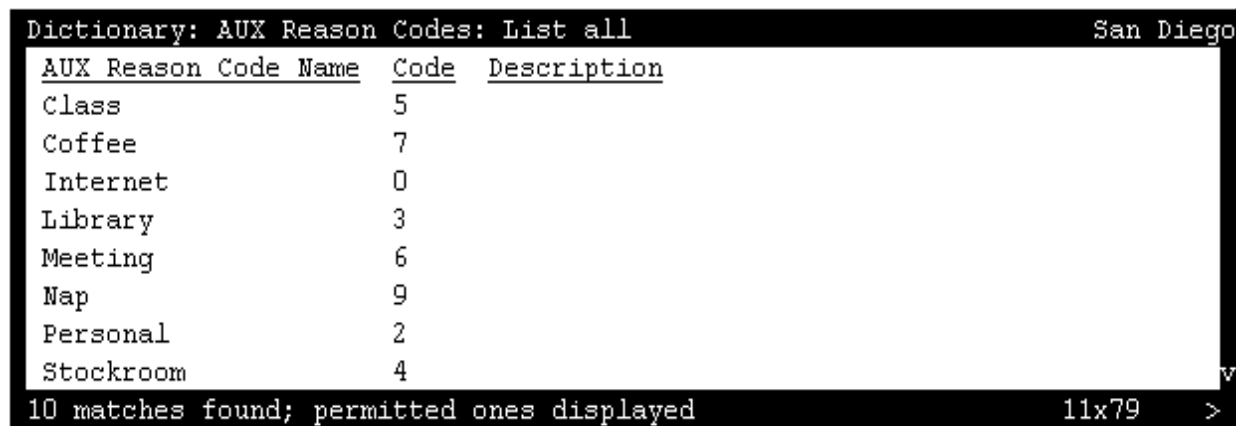
Figure 4-19: AUX Reason Codes Window

Table 4-18: AUX Reason Codes Window Fields

Field	Description
AUX Reason Code name:	Enter the name for the AUX reason code you want to review. Names must be unique within an ACD. No two AUX reason codes in the same ACD can have the same name. Names must begin with a letter and can have no more than 20 alphanumeric characters.
AUX Reason Code:	Enter the one-digit AUX reason code number, between 0 and 9.
Description:	Enter the description for this AUX reason code. The description can have no more than 50 alphanumeric characters.

AUX Reason Codes List All Window

Figure 4-20 shows a sample of what appears if you select **List all** in the previous window. If you leave all fields blank, the listing will show all reason codes with their currently assigned names and descriptions.



The screenshot shows a window titled "Dictionary: AUX Reason Codes: List all" with "San Diego" in the top right corner. The window contains a table with three columns: "AUX Reason Code Name", "Code", and "Description". The table lists eight entries: Class (5), Coffee (7), Internet (0), Library (3), Meeting (6), Nap (9), Personal (2), and Stockroom (4). At the bottom, it states "10 matches found; permitted ones displayed" and "11x79" with a right arrow.

<u>AUX Reason Code Name</u>	<u>Code</u>	<u>Description</u>
Class	5	
Coffee	7	
Internet	0	
Library	3	
Meeting	6	
Nap	9	
Personal	2	
Stockroom	4	

10 matches found; permitted ones displayed 11x79 >

Figure 4-20: AUX Reason Codes List All Window

Logout Reason Codes

Logout reason codes enable an agent to specify the reason for logging out, such as the end of a shift or training.

You can add, delete, modify, or view logout reason codes and their names from the Logout Reason Codes window. These names then appear in the standard agent login/logout and agent trace historical reports.

Things to Know Before You Start

- Logout Reason Codes are single digits, 0 through 9. A 0 is used when the system logs an agent out, or if the agent does not specify a code. You can change the assigned default name.
- Logout Reason Code names can be up to 20 characters in length.
- EAS is required to use the Logout Reason Codes feature.

Prerequisite System Administration

- To view logout reason code names, you must have **read** permission for the Dictionary subsystem. See Chapter 7, “User Permissions,” for more information.
- To add, delete, or modify a logout reason code name, you must have **write** permission for the Dictionary subsystem. See Chapter 7, “User Permissions,” for more information.

Relationships to
Other
Subsystems

Standard Historical Reports

Logout reason codes appear in the Agent Login/Logout and Agent Trace historical reports. Logout reason code names are in these reports. If you make any changes to logout reason code names, you must exit the report and rerun it to see the new name.

Timetable

You can place the Logout Reason Codes window in a timetable. See Chapter 3, "Timetable and Shortcut," for more information.

Logout Reason
Codes Window

Complete the Logout Reason Codes window shown in Figure 4-21 if you want names associated with your logout reason codes to appear in reports. Table 4-19 describes the Logout Reason Codes window fields.

Dictionary: Logout Reason Codes

G3V5_eas

Logout Reason Code name: _____

Logout Reason Code: _

Description: _____

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 4-21: Logout Reason Codes Window

Table 4-19: Logout Reason Codes Window Fields

Field	Description
Logout Reason Code name:	Enter the name that you want to add, delete, modify, or view for this logout reason code. The name must begin with a letter and can have no more than 20 alphanumeric characters. Names must be unique within the ACD.
Logout Reason Code:	Enter the logout reason code, a number between 0 and 9, that corresponds to the name entered in the Logout Reason code name field.
Description:	Enter the description for this logout reason code. The description can have no more than 50 alphanumeric characters.

Logout Reason Codes List All Window

The Logout Reason Codes List all window shown in Figure 4-22 displays reason codes that have names associated with them. If you leave all fields blank on the Logout Reason Codes window and then select List all, the listing will show all reason codes with their currently assigned names and descriptions.

Dictionary: Logout Reason Codes: List all			BullG3V5pe
<u>Logout Reason Code Name</u>	<u>Code</u>	<u>Description</u>	
Logout Reason Code 1	1	Description of Logout Reason Code 1	
Logout Reason Code 2	2	Description of Logout Reason Code 2	
Logout Reason Code 3	3	Description of Logout Reason Code 3	
Logout Reason Code 5	5	Description of Logout Reason Code 5	
Logout Reason Code 6	6	Description of Logout Reason Code 6	
Logout Reason Code 7	7	Description of Logout Reason Code 7	
Logout Reason Code 8	8	Description of Logout Reason Code 8	
Logout Reason Code 9	9	Description of Logout Reason Code 9	v
9 matches found; permitted ones displayed			10x80 >

Figure 4-22: Logout Reason Codes List All Window

Call Work Codes

You can add, delete, modify, or view call work codes and their names from the Call Work Codes window. These names then appear in the standard Call Work Codes historical reports.

Things to Know Before You Start

- Call Work Code “0” is reserved for unknown/unadministered work codes so that summary data can be collected. The default name for Call Work Code 0 is *Unadministered codes*. You can modify this name.
- Call work codes with **names** can be no longer than nine digits.



Even though you can administer call work codes with up to 16 digits in the ACD Administration subsystem, a call work code associated with a name cannot exceed nine digits. See Chapter 6, “ACD Administration—Call Work Codes,” for more information on administering call work codes.

Prerequisite System Administration

- You must administer the call work codes in the ACD Administration subsystem Call Work Codes window before you can assign names to the work codes. See Chapter 6, “ACD Administration—Call Work Codes,” for more information.
 - To view call work code names, you must have **read** permission for the Dictionary subsystem. See Chapter 7, “User Permissions,” for more information.
 - To add, delete, or modify a call work code name, you must have **write** permission for the Dictionary subsystem. See Chapter 7, “User Permissions,” for more information.
-

Relationships to Other Subsystems

Standard Historical Reports

Daily, weekly, and monthly historical reports are available for call work codes. The names you add in the Call Work Codes window are displayed in the Call Work Codes reports.

Timetable

You can place the Call Work Codes window in a timetable. See Chapter 3, “Timetable and Shortcut,” for more information.

Call Work Codes Window

Complete the Call Work Codes window shown in Figure 4-23 if you want names associated with your call work codes to appear in the standard Call Work Codes historical reports. Table 4-20 describes the Call Work Codes window fields.

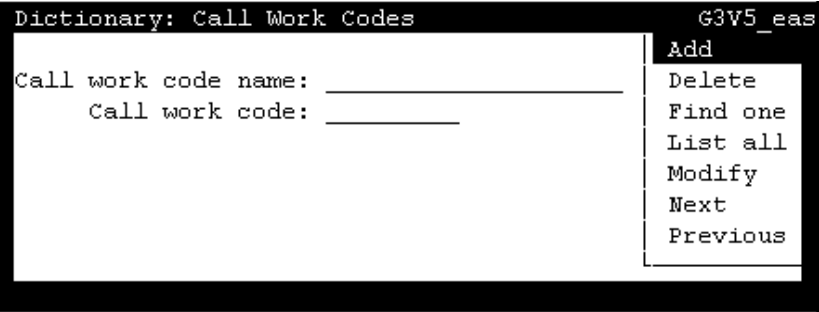


Figure 4-23: Call Work Codes Window

Table 4-20: Call Work Codes Window Fields

Field	Description
Call work code name:	Enter the name that you want to add, delete, modify, or view for this call work code. The name must begin with a letter and can have no more than 20 alphanumeric characters.
Call work code:	Enter the call work code, a number between 0 and 999999999, that corresponds to the name entered in the Call work code name field.

VDNs

Note The VDNs window is available only if you have purchased the Vectoring feature.

You assign names to VDNs so that names, instead of VDN numbers, appear on VDN reports and VDN administration windows. Your VDN names should reflect the configuration of your ACD. A name may indicate the following:

- The VDN's purpose (for example, sales or customer service)
- The VDN destination vector (for example, FBusy-Nat.Accts)
- The trunk group(s) assigned to the VDN (for example, WATS 800-331-1111).

Use the VDNs window shown in Figure 4-24 to assign, delete, modify, and view names of your VDNs.

Things to Know Before You Start

- If you assign names to VDNs on the switch, you may want to assign the same names in *CentreVu* CMS. However, the names can be different since the switch sends only VDN numbers, not VDN names, to *CentreVu* CMS.
- A `Find one` or `List all` lists only the VDNs that have already been assigned names. To get a list of VDNs that are available for naming, run the Vector Configuration Report. See the section in Chapter 6, “ACD Administration.”
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- VDNs must be created on the switch and assigned to be measured by *CentreVu* CMS.
 - To list names already assigned to VDNs, you need **read** permission for the Dictionary subsystem and for the specific VDNs whose names you want to see.
 - To add, delete, or change a VDN name, you need **write** permission for the Dictionary subsystem and the appropriate VDN.
 - See Chapter 7, “User Permissions,” for more information on assigning read/write permission.
-

Relationships to Other Subsystems

Reports

When you assign a VDN name, that name appears on all reports (real-time and historical) that include that VDN. If you make any additions or changes to a VDN name, the changes do not appear on any real-time report that is currently running. You must exit the report and rerun it to see the new VDN name.

Exceptions

If you assign exceptions to a VDN, the VDN name you assign appears in the exceptions text. Also, if you change a VDN name, the new name appears in the exception text for all exceptions logged after the change.

VDNs Window

Complete the VDNs window shown in Figure 4-24 to add, delete, modify, or view VDN names. Table 4-21 describes the VDN's window fields.

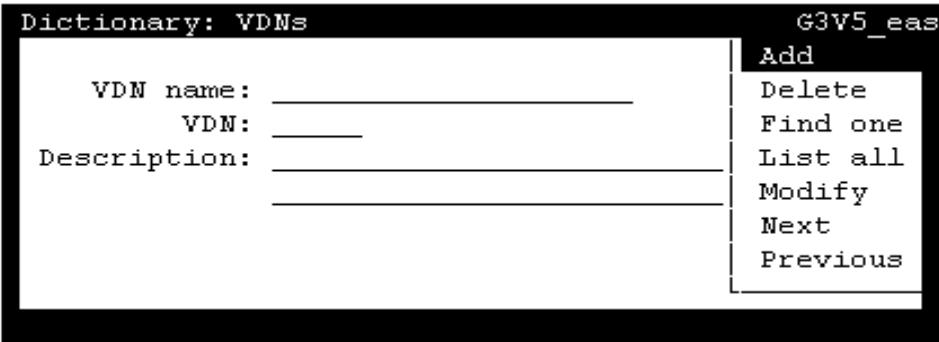


Figure 4-24: VDNs Window

Table 4-21: VDNs Window Fields

Field	Description
VDN name:	Enter the name of a VDN that you want to add, change, delete, or find. The name must begin with a letter and can have no more than 20 alphanumeric characters.
VDN:	Enter the VDN number (up to five digits) for which you want to add, change, delete, or find a name.
Description:	Enter a description of the VDN (for example, customer service - local retail 993-0000).

Vectors

Note

The Vectors window is available only if you have purchased the Vectoring feature.

You assign names to vectors so that the names, instead of vector numbers, appear on vector reports and administration windows. Your vector names should reflect the configuration of your ACD. A name may indicate the following:

- The vector's purpose (for example, sales or customer service)
- The VDN(s) assigned to the vector (for example, vdn2001, vdn3001, and vdn4001)
- The split(s) or skill(s) to which the vector sends calls (for example, sales1, sales2, AUDIX^{*}).

Use the Vectors window shown in Figure 4-25 to assign, delete, modify, or view names of your vectors.

Things to Know Before You Start

- You can assign a name to a vector even if the steps in the vector have not been defined.
- Selecting **Find one** or **List all** lists only vectors that have already been assigned names.
- Any vector can be named, whether it is empty or not. The number of available vectors depends on switch type.
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

^{*} AUDIX is a registered trademark of Lucent Technologies.

Prerequisite System Administration

- To list assigned vector names, you need **read** permission for the Dictionary subsystem and for the specific vectors whose names you want to see.
 - To add, delete, or change a vector name, you need **write** permission for the Dictionary subsystem and the appropriate vector.
 - See Chapter 7, “User Permissions,” for more information on assigning read/write permission.
-

Relationships to Other Subsystems

Reports

When you assign a vector name, that name appears on all reports (real-time and historical) containing that vector. If you make any additions or changes to the vector name, the changes do not appear on any real-time report that is currently running. You must exit the report and rerun it to see the new vector name.

Exceptions

Assigned vector names appear in the text for vector exceptions. Also, if you change a vector name, the new name appears in the exception text only for exceptions logged after the change.

Vectors Window

Complete the Vectors window shown in Figure 4-25 to add, delete, modify, or view vector names. Table 4-22 describes the Vectors window fields.

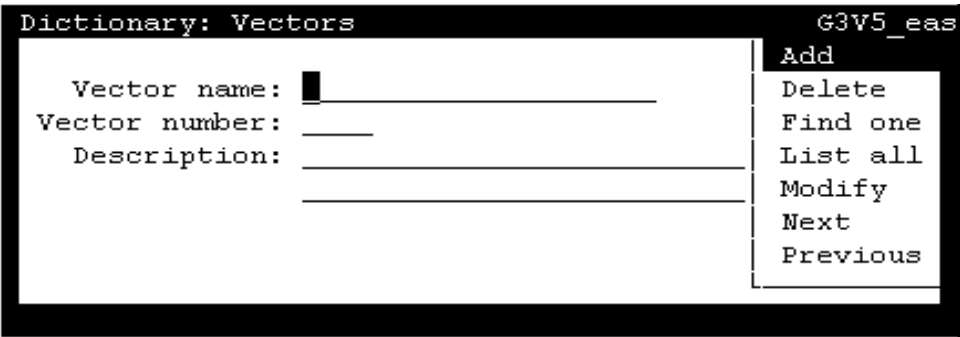


Figure 4-25: Vectors Window

Table 4-22: Vectors Window Fields

Field	Description
Vector name:	Enter the name of a vector that you want to add, change, delete, or find. The name can have up to 20 alphanumeric characters.
Vector:	Enter the vector number for which you want to add, change, delete, or find a name.
Description:	Enter a description of the vector (for example, customer service - local retail).

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General Information

An exception is a type of activity in the ACD which falls outside of the limits you have defined. An exception condition is defined in the CMS Exceptions subsystem, and usually indicates abnormal or unacceptable performance in the ACD (by agents, splits/skills, VDNs, vectors, trunks, or trunk groups). CMS users can be automatically notified when an exception condition occurs.

An exception is noted when an ACD activity falls outside of the limits you have defined. When an exception occurs, *CentreVu* CMS notifies you in two ways:

- You can set the terminal to beep, flash, or both beep and flash. The default setting is for the terminal to beep. You receive notification for all ACDs for which you have exceptions permission. See "Selecting Your Exception Notification" in this chapter for more information.
- In the *CentreVu* CMS title bar, the EX: field shows a running count of current exceptions for all ACDs for which you have exceptions permission. When an exception occurs, the count increases by one. The count is reset to zero at the start of a new intrahour reporting interval.

You can access the Real-time Exception Log (described later in this chapter) for complete messages on current exceptions. You can also generate historical exceptions reports.

This chapter addresses exceptions in the following order:

- **Administration**—walks you through the process of administering agent, split/skill, trunk/trunk group, and VDN/vector exceptions.
- **Real-time Exception Log**—shows an example of the log.

Note

For more information on the Real-time Exception Log, refer to the *CentreVu™ CMS R3V5 Administration* (585-215-820) document.

- **Historical Reports**—defines each report and the report's input window.

Note

If you need to know what a report looks like or need report row and column definitions, refer to the *CentreVu™ CMS R3V5 Reports* (585-215-821) document.

Use the Exceptions subsystem to accomplish the following:

- Define conditions for ACD activity for which you want notification. Activities may include agents, splits or skills, trunks or trunk groups, vectors and VDNs.
- Generate reports on agent, split or skill, trunk and trunk group, vector, VDN, malicious call trace, and other exceptions.
- Run the Real-time Exception Log.

Note You can define exception conditions and generate reports for VDNs and vectors only if you have purchased the Vectoring feature.

You can define exception conditions and generate reports for skills only if you have purchased the Expert Agent Selection (EAS) feature.

Types of Exceptions

An exception can be one of three types: peg count, agent timed, and other timed exceptions.

Peg Count Exceptions

A peg count exception occurs when, within the current interval (described in the Current Interval for Peg Count Exceptions section), the number of occurrences of an ACD activity exceeds an occurrence **threshold** you define.

Current Interval for Peg Count Exceptions

The current interval is a set number of minutes. This means that *CentreVu* CMS starts collecting ACD event occurrences at the beginning of the interval and continues collecting ACD event occurrences until the end of the interval. The current interval can be 15, 30, or 60 minutes.

Exception conditions apply to ACD events occurring only within the **current** interval you defined. When the current interval changes, all ACD event occurrences are cleared, and *CentreVu* CMS begins to count event occurrences again starting from zero. Therefore, you should make sure your exception conditions realistically reflect what will trigger an exception within your current interval.

Agent Timed Exceptions

Agent timed exceptions are tracked from the time the agent logs in until the agent logs out. These exceptions can occur many times during the login period, and even within an interval. The exception count is cleared when the agent leaves the state that triggered the exception.

For example, you may define an exception to notify you whenever agents spend more than 5 minutes in AUX. When an agent spends longer than 5 minutes in AUX work, an exception is triggered for that agent. When the agent changes to some other state, such as AVAIL (available), the exception is reset so it can occur again when the agent reenters AUX.

Other Timed Exceptions

A timed exception occurs when the number of ACD activity occurrences exceeds a threshold, where the duration of each occurrence is either less than a minimum time limit or greater than a maximum time limit.

For example, you may set the time limit at 20 seconds for any call to wait in queue before being answered. You may then define an occurrence threshold of three for the acceptable number of calls which can wait in the queue for 20 seconds. An exception occurs if, within an interval, more than three separate calls wait in the queue longer than 20 seconds.

Timed occurrence thresholds for Other Timed Exceptions apply only to ACD activity within the last interval. At the beginning of the next interval, the occurrence count for any timed exception type (except for agent timed exceptions) is cleared and starts again from zero. However, since the time limit for a timed exception type can be more than one hour, the duration of an exception activity is not cleared at the end of the intrahour interval. *CentreVu* CMS continues to track the time spent on an exception activity that continues from one interval into the next.

Interval for Timed Exceptions

The limit for timed exceptions applies to occurrences that happen within an interval.

Exceptions Count in the Title Bar

The exceptions count in the Title Bar EX: field shows the current total for both peg count exceptions and timed exceptions for all ACDs for which you have exception permissions. The exceptions count is cleared at the end of each interval. The maximum exception count shown on the title bar is 9999.

General Rules for Administering Exceptions

- For any exception type, the occurrence threshold must be from 0 to 999.
- For timed exceptions, the time limit for each occurrence must be from 0 to 28,800 seconds (the equivalent of 8 hours).
- Whenever you define or change exceptions, *CentreVu* CMS starts checking for the exceptions immediately, as long as data collection is on.
- If you enter a time limit for an activity, you must also enter an occurrence threshold for the same activity.
- You must select **Find** one from the action list before selecting **Modify** so you will get the current settings.
- The default setting is *off* (not active) for most exceptions. Exceptions-checking for the following events, however, is always turned on. These events cannot be turned off.
 - Malicious call traces (Generic 2, Generic 3, except for G3iV1, and the ECS)
 - Data collection disruptions
 - Agent attempts to log in with more than one login ID.

Prerequisite System Administration

- You must have **read** permission for the Exceptions subsystem to access the Real-time Exception Log or historical reports.
- You must have **write** permission for the Exceptions subsystem to set up or modify checking for exceptions.
- Use the User Permissions: Feature Access window to assign permission for the Exceptions subsystem. See Chapter 7, “User Permissions,” for more information.

User Permissions for Exceptions

You must have exceptions permission for a particular split or skill, trunk group, VDN, or vector to be notified of an exception for that entity. (Notification is by beeping, flashing, or the exception count.) You also must have exceptions permission for that entity to see the exceptions in the Real-time Exception Log.

Permissions for a specific entity are assigned in one of the following User Permissions windows:

- Split/Skill Access
- Trunk Group Access
- ACD Access
- Vector Access
- VDN Access.

If you have multiple ACDs, you must have permission for each ACD to get exceptions for that ACD. You also must have permission for a particular split or skill, trunk group, VDN, or vector for the ACD to be notified of an exception for that element and to see exceptions in the Real-time Exception Log.

See Chapter 7, “User Permissions,” for more information.

Note

If you have exceptions permission to a given entity but have no permission for the exceptions subsystem, you will be notified when exceptions occur, but you will not be able to look at the exceptions log or any exception reports. Table 5-1 describes exceptions permissions.

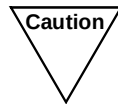
Table 5-1: Capabilities Based on Permissions

Read Permission for the Exceptions Subsystem	Exceptions Permission	Information You Can Get About Exceptions
yes	yes	Exception reports, messages in the Real-time Exception Log, and real-time notification of exceptions.
yes	no	Exception reports, but no messages in the Real-time Exception Log, and no real-time notification of exceptions.
no	yes	Real-Time notification of exceptions, but no access to the Real-time Exception Log or to any exception reports.
no	no	No access to the Real-time Exception Log or exception reports, and no notification of exceptions.

Relationships to Other Subsystems

System Setup

The number of historical exception records that *CentreVu* CMS stores is assigned in the System Setup: Data Storage Allocation window. *CentreVu* CMS can store up to 2000 exception records of each type. This number is the total for all ACDs for each category of ACD element. Thus, you can store up to 2000 agent, 2000 split or skill, 2000 trunk group, 2000 VDN, and 2000 vector exception records across all ACDs.



Whenever you select **Modify** from the Data Storage Allocation window, the exception records for the current intrahour interval are removed.

For each ACD, the number of entities (splits/skills, agents, trunks, trunk groups, VDNs, or vectors) for which you have exceptions must not be greater than the number of entities for which you have allocated space in Data Storage Allocation. For example, if you have 100 VDNs allocated, you should not administer exceptions for more than 100 VDNs. If more than 100 exceptions are administered, some of them will not be counted.

Maintenance

You cannot back up historical exceptions records. If a backup is performed using the Maintenance: Back Up Data window, only your exception administration is backed up.

Dictionary

When you set up *CentreVu* CMS either to check for exceptions or to order exceptions reports, you may enter the split or skill, trunk group, VDN, and vector name, instead of numbers if you have created the names in the appropriate window in the Dictionary subsystem. See Chapter 4, "Dictionary," for more information.

After you have created the names, exception notices in the Real-time Exception Log and data in the historical reports use those names instead of numbers.

User Permissions

You must have **read** or **read/write** permission for the Exceptions subsystem to access the Exceptions feature. You must have exceptions notification permission for the ACDs, Splits/Skills, Trunk Groups, VDNs,

and Vectors to be alerted when limits for any of these items are exceeded.

Custom Reports

You can create custom exception reports or reports that combine exceptions data with regular historical data in the Custom Reports subsystem.

Note

Although you can copy real-time reports and historical reports into a custom report, you cannot copy an exceptions report into a custom report. For exceptions, you must individually specify all exception items you want in the custom report.

For more information on creating custom reports, see the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document.

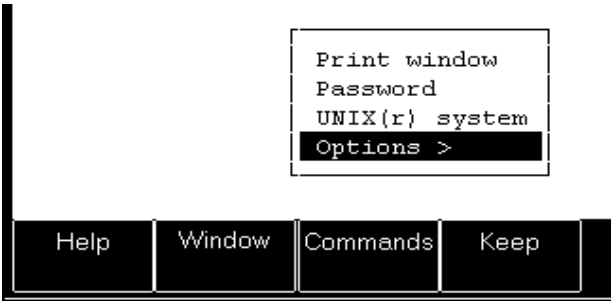
Timetable

You can schedule exceptions administration and historical reports using Timetable. See Chapter 3, “Timetable and Shortcut,” for more information and procedures.

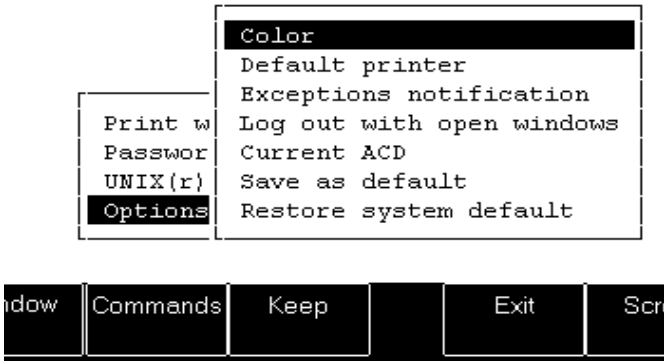
Selecting Your Exception Notification

When you receive an exception notification, you can set the terminal to beep, flash, or both beep and flash. Beep is the default value. To change your exception notification, follow these steps:

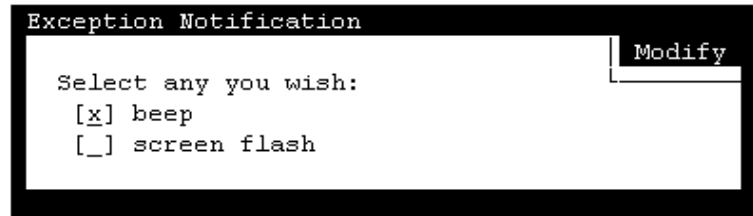
1. Press the **Commands** SLK. → *The Commands menu displays.*



2. Select **Options >**, and press the **Return** key. → *The Options menu displays.*



3. Select Exceptions notification, and press the **Return** key. → *The Exceptions Notification window displays.*



4. Enter an **x** next to beep or screen flash (either, both, or neither). → *The cursor moves to the action list.*
5. Press the **Return** key again. → *Working appears on the status line until the action completes, and then Successful appears.*
6. Press the **Exit** key to return to the current open window. → *The Exceptions Notification window disappears.*

Administration

The Exceptions menu shown in Figure 5-1 lists the Real-time Exception Log and Historical Reports before Administration. However, you should set up your exception conditions before you look at the Real-time Exception Log and order reports. If you look at the log and order reports *before* you set any exception conditions, you will not see any data except for link down and malicious call trace exception conditions. This chapter describes Exceptions Administration selection before describing the Real-time Exception Log and Historical Reports selections.

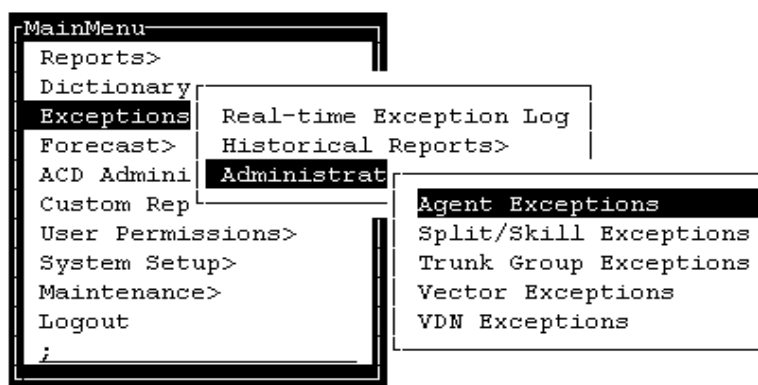


Figure 5-1: Administration Exceptions Submenu

Agent Exceptions

Use the Administration: Agent Exceptions window to define exceptions and to turn on *CentreVu* CMS checking for agent exceptions.

Things to Know Before You Start

- Agent exceptions are administered on a per-split or per-skill basis, so they apply to all agents logged into the split or skill.
- “External outbound” exceptions are a subset of “outbound” exceptions. If both types of exceptions are administered, the limit for “external outbound” covers external outbound calls, and the limit for “outbound” covers only internal outbound calls.
- All the standard procedures and common rules apply. See Chapter 2, “User Basics,” for this information.
- Review the following three chapter sections:
 - “General Rules for Administering Exceptions”
 - “Prerequisite System Administration” for read/write information
 - “Relationships to Other Subsystems”.

Agent Exceptions Window

You must complete the Administration: Agent Exceptions window shown in Figure 5-2 to set up and turn on *CentreVu* CMS checking for agent exceptions. Table 5-2 describes the Administration: Agent Exceptions window fields. Use the tab key or the scroll SLK to scroll to fields not shown when the window first opens.

Exceptions: Administration: Agent Exceptions G3V5_eas

Split(s)/Skill(s):

Active	Time Limit	Threshold	Exception Type
<u>n</u>	<u>0</u>	<u>0</u>	Time available
<u>n</u>	<u>0</u>	<u>0</u>	Time on inbound ACD call (min)
<u>n</u>	<u>0</u>	<u>0</u>	Time on inbound ACD call (max)
<u>n</u>	<u>0</u>	<u>0</u>	Time in after call work
<u>n</u>	<u>0</u>	<u>0</u>	Time on inbound ACW call
<u>n</u>		<u>0</u>	Number of inbound ACW calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time on outbound ACW call
<u>n</u>		<u>0</u>	Number of outbound ACW calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time in AUX work
<u>n</u>	<u>0</u>	<u>0</u>	Time on inbound AUX call
<u>n</u>		<u>0</u>	Number of inbound AUX calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time on outbound AUX call
<u>n</u>		<u>0</u>	Number of outbound AUX calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time in AUX with Reason Code 0

Add
 Delete
 Find one
 Modify
 Next
 Previous

54x66

Figure 5-2: Agent Exceptions Window

Table 5-2: Agent Exceptions Window Fields

Field	Description
Split(s)/Skill(s):	Enter the split or skill numbers or names for which you want to set up or modify <i>CentreVu</i> CMS checking for exceptions.
Active (Required)	Enter a y to turn a desired exception type on, or an n to turn it off.
Time Limit (Required)	For each desired timed exception type, enter a length of time to trigger the counting of an occurrence against the exception threshold when the time exceeds or falls below the limit. Enter the time in seconds, from 0 to 28800. This field requires an entry even if the Active field value is “no” (n).
Threshold (Required)	For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above that number generates an exception. If you want the first occurrence of an exception to notify you, enter a 0 in this field. This field requires an entry even if the Active field value is “no” (n).
Time available	The time an agent spends in Time available is idle time. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified of the exception when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts.
Time on inbound ACD call (min)	The minimum time that you want an agent to spend on an inbound ACD call. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the minimum time is not reached, an occurrence is counted toward the threshold. You are notified when the threshold is exceeded. This exception can trigger more than once within an intrahour interval.

Table 5-2: Agent Exceptions Window Fields (Contd)

Field	Description
Time on inbound ACD call (max)	The maximum time that you want an agent to spend on an ACD call. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Time in after call work	The maximum time that you want an agent to spend on after call work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Time on inbound ACW call	The maximum time that you want an agent to spend on an inbound call during after call work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Number of inbound ACW calls/agent	The total number of inbound calls that an agent can receive during after call work. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Time on outbound ACW call	The maximum time that you want an agent to spend on an outbound call during after call work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.

Table 5-2: Agent Exceptions Window Fields (Contd)

Field	Description
Number of outbound ACW calls/agent	The total number of outbound calls that an agent can make during after call work. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Time in AUX work	The maximum time that an agent can spend doing auxiliary work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Time on inbound AUX call	The maximum time that you want an agent to spend on an inbound call during auxiliary work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Number of inbound AUX calls/agent	The total number of inbound calls that an agent can receive during auxiliary work. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Time on outbound AUX call	The maximum time that you want an agent to spend on an outbound call during auxiliary work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Number of outbound AUX calls/agent	The total number of outbound calls that an agent can place during auxiliary work. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.

Table 5-2: Agent Exceptions Window Fields (Contd)

Field	Description
Time in AUX with Reason Code X (X is from 0 to 9)	The maximum time that an agent can spend doing auxiliary work with Reason Code X (X is from 0 to 9). <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Login violations	Notification of when a login violation occurs. A violation can occur when an agent attempts to log in with an ID that is not in the Dictionary. A violation can also occur if an agent tries to log in with two different IDs at the same voice terminal. In this case, <i>CentreVu</i> CMS notifies you if the agent tries to log into one split or skill a second time while already logged in or if the agent tries to log into multiple splits with more than one ID. For multiple splits or skills, no data is collected for the second or third ID. If you enter an n to turn off this exception, checking only for Dictionary login violations is turned off. You cannot turn off checking for agents who try to log in using more than one login ID. This exception cannot trigger more than once within an interval.
Logout attempt without valid reason code	Indicates if the agent enters an invalid code when attempting to log out. The switch sends this information if logout reason codes are forced or requested and the agent enters an invalid code, times out or goes on hook, or drops or releases the call without entering a code. If reason codes are forced, the logout will be denied. If reason codes are requested, the default reason code will be used and the logout will succeed. This exception cannot trigger more than once within an interval.

Table 5-2: Agent Exceptions Window Fields (Contd)

Field	Description
AUX attempt without valid reason code	The switch sends this information if AUX work reason codes are forced or requested and the agent attempting to change to AUX enters an invalid code, times out or goes on hook, or drops or releases the call without entering a code. If reason codes are forced, the switch will deny the change to AUX work. If reason codes are requested, the agent will be put into AUX work mode with the default reason code. This exception cannot trigger more than once within an interval.
Time on outbound ACD call (min) (Generic 3 and the ECS only)	The minimum time that you want an agent on an outbound ACD call. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. This exception can trigger more than once within an intrahour interval.
Time on outbound ACD call (max) (Generic 3 and the ECS only)	The maximum time that you want an agent on an outbound ACD call. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Number calls transferred	The total number of calls that an agent can transfer. You are notified when the threshold is exceeded. (With Generic 1, you are notified only if the agent transfers a call to a measured trunk from a measured trunk or to a measured split.) This exception cannot trigger more than once within an interval.
Time ACD call spent on hold (Generic 2, Generic 3 and the ECS only)	The maximum time that an agent can put an ACD call on hold. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. This exception can trigger more than once within an interval.

Table 5-2: Agent Exceptions Window Fields (Contd)

Field	Description
Number ACD calls placed on hold (Generic 2, Generic 3 and the ECS only)	The maximum number of ACD calls that an agent can place on hold. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Number ACD calls abandoned while on hold (Generic 2, Generic 3 and the ECS only)	The maximum number of calls that abandoned after being placed on hold by an agent. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Time ACD call spends ringing (Generic 2, Generic 3 and the ECS only)	The maximum time that a split or skill or direct agent ACD call can ring at an agent's telephone before an exception is counted. <i>CentreVu</i> CMS checks the allowed ringing time before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. This exception can trigger more than once within an intrahour interval.
Ringing call automatically redirected from agent (Generic 3 Versions 2 and later, and the ECS only)	This exception triggers if an agent lets an ACD call ring at the voice terminal and the switch automatically redirects the call back to the split or skill or to a VDN. The agent is automatically put into AUX work when this happens. There is no count associated with this exception, so you will be notified whenever it occurs. You must have the Redirection On No Answer feature on the switch.
Time on direct agent call (Generic 3 and the ECS only)	The maximum number of seconds that you want an agent to spend on a direct agent ACD call. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Number calls in direct agent queue (Generic 3 only)	The maximum number of direct agent ACD calls that an agent can have waiting in queue. You are notified each time the threshold is exceeded. For example, if "3" is the threshold to trigger an exception for the agent, and the number of calls in queue exceeded "3" at five different times during the interval, you are notified of the exception five different times.

Table 5-2: Agent Exceptions Window Fields (Contd)

Field	Description
Time call waited in direct agent queue (Generic 3 and the ECS only)	The maximum time that you want any call in the direct agent queue to wait. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Number calls abandoned from direct agent queue (Generic 3 and the ECS only)	The maximum number of direct agent ACD calls that can leave the direct agent queue by abandoning before you are notified. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Number calls outflowed from direct agent queue (Generic 3 and the ECS only)	The maximum number of direct agent calls that outflowed from the direct agent queue. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Time on external outbound ACW call (Generic 3, Generic 2.2 and the ECS only)	The maximum number of seconds that you want an agent to spend on an external outbound call during after call work (ACW). <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.
Number of external outbound ACW calls/agent (Generic 3, Generic 2.2, and the ECS only)	The maximum number of external outbound calls that an agent can make while in after call work (ACW). You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Time on external outbound AUX call (Generic 3, Generic 2.2, and the ECS only)	The maximum number of seconds that you want an agent to spend on an external outbound call during auxiliary work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. You are notified when the threshold is exceeded. Once the exception has occurred and the agent changes state, the exception is cleared and counting restarts. This exception can trigger more than once within an intrahour interval.

Table 5-2: Agent Exceptions Window Fields (Contd)

Field	Description
Number external outbound AUX calls/agent (Generic 3, Generic 2.2, and the ECS only)	The maximum number of external outbound calls that an agent can make during auxiliary work. You are notified when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Agent logged out with active/held calls	The agent had calls that were active or on hold when the agent logged out of the switch. This exception does not have a time limit or threshold count associated with it.
Agent entered invalid call work code	When an agent enters an unadministered call work code (CWC), an exception is pegged for CWC "0." This exception should be off (n) if you are collecting CWCs in call records only.
Agent could not be logged in	This exception is not on the Agent Exceptions Administration window. It is always enabled. If an agent cannot log into a split/skill, the exception Could not be logged in appears on the Agent Exceptions historical report.

Split/Skill Exceptions

Use the Split/Skill Exceptions Administration window to define exceptions and turn on *CentreVu* CMS checking for split or skill exceptions.

Things to Know Before You Start

- You must have purchased the EAS feature to define exception conditions for skills.
- All standard procedures and common rules apply. See Chapter 2, "User Basics."
- The chapter sections listed below also apply to Split/Skill Exception Administration:
 - "General Rules for Administering Exceptions"
 - "Prerequisite System Administration" for read/write information
 - "Relationships to Other Subsystems".

Split/Skill Exceptions Window

You must complete the Administration: Split/Skill Exceptions window shown in Figure 5-3 to set up and turn on *CentreVu* CMS checking for split or skill exceptions. Table 5-3 describes the Split/Skill Exceptions window fields. Use the tab key or the scroll SLK to scroll to fields not shown when the window first opens.

Exceptions: Administration: Split/Skill Exceptions G3V5_eas

Split(s)/Skill(s): _____

Active	Time Limit	Threshold	Exception Type
n	0	0	Time call has waited in queue
n		0	Number calls waiting
n		0	Number calls abandoned
n	0	0	Average speed of answer (seconds)
n		0	Number intraflowed-out calls
n		0	Number intraflowed-in calls
n		0	Number interflowed-out calls
n		0	Number calls handled as backup
n		0	Number calls transferred
n		0	Number calls offered while queue full
n	0	0	Expected Wait Time (pri Top) exceeds

26x65

Add
 Delete
 Find one
 Modify
 Next
 Previous

Figure 5-3: Split/Skill Exceptions Window

Table 5-3: Split/Skill Exceptions Window Fields

Field	Description
Split(s)/Skill(s):	Enter the split or skill numbers or names for which you want to set up or modify <i>CentreVu</i> CMS checking for exceptions.
Active (Required)	Enter a y to turn a desired exception type on, or an n to turn it off.
Time Limit (Required)	For each desired timed exception type, enter the length of time to wait before triggering the counting of an occurrence against the exception threshold. Triggering occurs when the time exceeds or falls below the limit. Enter the time in seconds, from 0 to 28800. This field requires an entry even if the Active field value is “no” (n).
Threshold (Required)	For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above that number generates an exception. If you want to be notified upon the first occurrence of an exception, enter a 0 in this field. This field requires an entry even if the Active field value is “no” (n).
Time call has waited in queue	This is the total acceptable time that any call in queue remains unanswered before an occurrence is counted against the threshold limit. When a call in queue exceeds the threshold, you are notified. This exception cannot trigger more than once within an interval.
Number calls waiting	The maximum number of calls that you want waiting in queue at any one time. Since this condition can come and go, you are notified each time the number of waiting calls exceeds the threshold. For example, if “5” is the threshold to trigger an exception for the split or skill, and the number of calls in queue exceeded “5” at two different times during the interval, you are notified of the exception two different times.
Number calls abandoned	The total number of acceptable abandoned calls. You are notified when the number of abandoned calls exceeds the threshold. This exception cannot trigger more than once within an interval.

Table 5-3: Split/Skill Exceptions Window Fields (Contd)

Field	Description
Average speed of answer (seconds)	An occurrence is counted against the threshold limit when the average speed of answer for the split or skill is longer than the limit administered. The average is computed at the end of each call. An occurrence is counted against the threshold if the average speed of answer is greater than the administered limit. You are notified when the number of occurrences exceeds the threshold set for the average speed of answer. This exception cannot trigger more than once within an interval.
Number intraflowed-out calls	The acceptable number of calls that can intraflow out of the split or skill before an occurrence is counted against the threshold limit. You are notified when the number of intraflowed-out calls exceeds the threshold. This exception cannot trigger more than once within an interval.
Number intraflowed-in calls	The acceptable number of calls that can intraflow into the split or skill before an occurrence is counted against the threshold limit. You are notified when the number of intraflowed-in calls exceeds your threshold. This exception cannot trigger more than once within an interval.
Number interflowed-out calls	The acceptable number of calls that can interflow out of the split or skill before you are notified. This exception cannot trigger more than once within an interval.
Number calls handled as backup (Generic 3, Generic 2 with vectoring, and the ECS only)	The acceptable number of calls that this split or skill can handle as a backup for another split or skill before you are notified. This exception cannot trigger more than once within an interval.
Number calls transferred (Generic 2.1 with vectoring, Generic 2.2, Generic 3, and the ECS only)	The acceptable number of calls that can be transferred from this split or skill before you receive an exception notification. This exception cannot trigger more than once within an interval. (G1 only counts transfers to a measured split, or from a measured trunk to a measured trunk.)
Number calls offered while queue full (Generic 3 and the ECS only)	The acceptable number of calls that can be offered to the split or skill while the queue is full before you receive an exception notification. This exception cannot trigger more than once within an interval.

Table 5-3: Split/Skill Exceptions Window Fields (Contd)

Field	Description
Expected Wait Time (priority Top) exceeds threshold (Generic 3 Version 4 or later)	This is an estimate of how long an incoming call with the highest priority will wait in queue before connecting to an agent. This exception is triggered only once per interval, when the time limit exceeds the number of times specified in the threshold.
Expected Wait Time (priority High) exceeds threshold (Generic 3 Version 4 or later)	This is an estimate of how long an incoming call with the second highest priority will wait in queue before connecting to an agent.
Expected Wait Time (priority Medium) exceeds threshold (Generic 3 Version 4 or later)	This is an estimate of how long an incoming call with the third highest priority will wait in queue before connecting to an agent.
Expected Wait Time (priority Low) exceeds threshold (Generic 3 Version 4 or later)	This is an estimate of how long an incoming calls with the lowest priority will wait in queue before connecting to an agent.
Rolling Average speed of answer (seconds) (Generic 3 Version 4 or later)	The average speed of answer (ASA) as sent to <i>CentreVu</i> CMS from the switch. An occurrence is counted when <i>CentreVu</i> CMS receives an ASA that exceeds the time limit specified for a split or skill. An exception is generated when the threshold is exceeded. This type of exception is triggered only once per interval.

Trunk Group Exceptions

Use the Administration: Trunk Group Exceptions window to define exceptions and turn on *CentreVu* CMS checking for trunk group exceptions.

Things to Know Before You Start

- All standard procedures and common rules apply. See Chapter 2, "User Basics."
- The chapter sections listed below also apply to Trunk Group Exceptions Administration:
 - "General Rules for Administering Exceptions"
 - "Prerequisite System Administration" for read/write information
 - "Relationships to Other Subsystems".
- The Audio Difficulty exception is always provided for all switches that support event counts.

Trunk Group Exceptions Window

You must complete the Trunk Group Exceptions window shown in Figure 5-4 to define and turn on *CentreVu* CMS checking for trunk group exceptions. Table 5-4 describes the Trunk Group Exceptions window fields.

Exceptions: Administration: Trunk Group Exceptions G3V5_eas

Trunk groups:

Active	Time Limit	Threshold	Exception Type
☐			Time trunk in use (min)
☐			Time trunk in use (max)
☐			Time any trunk maintenance busy
☐			Length of time all trunks busy
☐			Number trunk failures in group
☐			Number of trunks in use
☐			Number of trunks maintenance busy
☐			Number of failures on a single trunk

Add
 Delete
 Find one
 Modify
 Next
 Previous

Figure 5-4: Trunk Group Exceptions Window

Table 5-4: Trunk Group Exceptions Window Fields

Field	Description
Trunk group(s):	Enter the trunk group numbers or names for which you want to set up or modify <i>CentreVu</i> CMS checking for trunk group exceptions.
Active (Required)	Enter a y to turn a desired exception type on, or an n to turn it off.
Time Limit (Required)	For each desired timed exception type, enter the length of time to wait before triggering the counting of an occurrence against the exception threshold. Triggering occurs when the time exceeds or falls below the limit. Enter the time in seconds, from 0 to 28800. This field requires an entry even if the Active field value is “no” (n).
Threshold (Required)	For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above that number generates an exception. If you want to be notified upon the first occurrence of an exception, enter a 0 in this field. This field requires an entry even if the Active field value is “no” (n).
Time trunk in use (min) (Exceptions per trunk)	The minimum acceptable time that a trunk in the trunk group can be in use. <i>CentreVu</i> CMS checks the allowed time the trunk is in use before an occurrence is counted against the threshold for that trunk. You receive an exception notification when the threshold is exceeded. This exception cannot trigger for the same trunk more than once within an interval.
Time trunk in use (max) (Exceptions per trunk)	The maximum acceptable time that a trunk in the trunk group is in use. <i>CentreVu</i> CMS checks the allowed time the trunk is in use before an occurrence is counted against the threshold for that trunk. You receive an exception notification when the threshold is exceeded. This exception cannot trigger for the same trunk more than once within an interval.

Table 5-4: Trunk Group Exceptions Window Fields (Contd)

Field	Description
Time any trunk maintenance busy (Exceptions per trunk)	The maximum time that a trunk in the trunk group can be maintenance busy. <i>CentreVu</i> CMS checks the allowed time the trunk is maintenance busy before an occurrence is counted against the threshold for that trunk. When the threshold is exceeded, you receive an exception notification for that trunk. This exception cannot trigger for the same trunk more than once within an interval.
Length of time all trunks busy (Exceptions per trunk group)	The total time that all trunks can be busy in the trunk group before counting as an occurrence. You receive an exception notification when the threshold is exceeded. This exception cannot trigger more than once within an interval.
Number of trunk failures in group (Exceptions per trunk group, G2 only)	The maximum acceptable number of trunks failing to carry a call in a trunk group. <i>CentreVu</i> CMS checks the allowed number of trunk failures before you receive an exception notification. This exception cannot trigger more than once within an interval.
Number of trunks in use (Exceptions per trunk group)	The maximum acceptable number of trunks that can be in use at any one time in the trunk group. Since this condition can come and go, you receive an exception notification each time the allowed number of trunks in use exceeds the threshold within the interval.
Number of trunks maintenance busy (Exceptions per trunk group)	The maximum acceptable number of trunks that can be maintenance busy in the trunk group without receiving an exception. Since this condition can come and go, you receive an exception notification each time the allowed number of trunks maintenance busy exceeds the threshold within the interval.
Number of failures on a single trunk (Exceptions per trunk group, G2 only)	The maximum acceptable number of failures that a single trunk can have in the trunk group without counting as an occurrence. <i>CentreVu</i> CMS checks the allowed number of trunk failures before you receive an exception notification for that trunk. This exception cannot trigger for the same trunk more than once within an interval.

Vector Exceptions

Note

The Administration: Vector Exceptions window is available only if you have purchased the Vectoring feature.

Things to Know Before You Start

- On Generic 3 and the ECS, calls may generate some exceptions for a vector, even after the vector has given routing control to the adjunct by an adjunct routing command. Exceptions may occur, even with adjunct routing, because a call is tracked in the vector until:
 - a call rings at an agent
 - the caller abandons
 - the call is routed to another vector
 - the call is routed to another VDN
 - the call is routed to an unmeasured destination.
- All standard procedures and common rules apply. See Chapter 2, "User Basics."

Prerequisite System Administration

- Some exception types require that an appropriate step exist in the vector. For example, to get exceptions on unsuccessful Look Ahead Interflow attempts, the vector must have at least one "route to" step which routes calls to a remote switch.
- See "Prerequisite System Administration" earlier in this chapter for the read/write information.

Vector Exceptions Window

To define vector exceptions and to turn on CentreVu CMS checking for vector exceptions, you must complete the Administration: Vector Exceptions window shown in Figure 5-5. Table 5-5 describes the Vector Exceptions window fields.

Active	Time Limit	Threshold	Exception Type
<u>n</u>	<u>0</u>	<u>0</u>	Time in vector (max)
<u>n</u>		<u>0</u>	Number calls abandoned while in vector
<u>n</u>		<u>0</u>	Number calls forced busy
<u>n</u>		<u>0</u>	Number calls disconnected
<u>n</u>		<u>0</u>	Number calls in an ACD split queue
<u>n</u>		<u>0</u>	Number unsuccessful lookahead interflow attempts
<u>n</u>		<u>0</u>	Number unsuccessful adjunct routing attempts

Figure 5-5: Vector Exceptions Window

CentreVu CMS checking for vector exceptions begins when a call enters the vector. Checking ends when the call connects to an agent, abandons, or is routed to another destination.

Table 5-5: Vector Exceptions Window Fields

Field	Description
Vector(s):	Enter the vector numbers or names for which you want to set up or modify checking for vector exceptions.
Active (Required)	Enter a y to turn a desired exception type on, or an n to turn it off.
Time Limit (Required)	For each desired timed exception type, enter the length of time to wait before triggering the counting of an occurrence against the exception threshold. Triggering occurs when the time exceeds or falls below the limit. Enter the time in seconds, from 0 to 28800. This field requires an entry even if the Active field value is "no" (n).

Table 5-5: Vector Exceptions Window Fields (Contd)

Field	Description
Threshold (Required)	For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above that number generates an exception. If you want to be notified upon the first occurrence of an exception, enter a 0 in this field. This field requires an entry even if the Active field value is "no" (n).
Time in vector (max)	This is the time that a vector takes to process each call. An occurrence is counted against the threshold when the time exceeds the number of seconds specified in the Time Limit field. This exception cannot trigger more than once within an interval.
Number calls abandoned while in vector	This is the number of calls that abandoned during vector processing. An occurrence is counted against the threshold each time a call is abandoned during vector processing. This exception cannot trigger more than once within an interval.
Number calls forced busy	This is the number of calls that are given a busy signal by the switch. An occurrence is counted against the threshold each time a call is given a busy signal. This exception cannot trigger more than once within an interval.
Number calls disconnected	This is the number of calls that are disconnected by the switch Disconnect vector command, the vector disconnect timer or, for Generic 3 Version 2 and later G3 versions, and the ECS, because the call reached the end of vector processing without being queued. An occurrence is counted against the threshold each time a call is automatically disconnected during vector processing. This exception cannot trigger more than once within an interval.
Number calls in an ACD split or skill queue	This is the total number of calls that are in queue for the vector's main and backup splits or skills. An occurrence is counted when this number exceeds the threshold. Since this condition can come and go, you receive an exception each time the threshold is exceeded.

Table 5-5: Vector Exceptions Window Fields (Contd)

Field	Description
Number unsuccessful lookahead interflow attempts	This is the number of calls that fail to interflow to another switch and remain in the current vector for processing. An occurrence is counted against the threshold each time a call fails to interflow. This exception cannot trigger more than once within an interval.
Number unsuccessful adjunct routing attempts	An occurrence is counted against the threshold each time an “adjunct routing” step fails. A failure occurs when the adjunct host computer does not take routing control of the call. This failure can occur because the connection to the adjunct is down or busy, or because the adjunct software rejects control. This exception cannot trigger more than once within an interval.

VDN Exceptions

Note

The Administration: VDN Exceptions window is available only if you have purchased the Vectoring feature.

Things to Know Before You Start

- On Generic 2.2, Generic 3, and the ECS, because of the “go to vector” command, the exception “Time in vector” may include time in more than one vector.
- All standard procedures and common rules apply. See Chapter 2, “User Basics.”

Prerequisite System Administration

- Some exception types require that an appropriate step exist in the vector to which the VDN is assigned. For example, to get exceptions on unsuccessful Look Ahead Interflow attempts, the VDN's vector must have at least one “route to” step which routes calls to a vector on a remote switch.
- See "Prerequisite System Administration" earlier in this chapter for the read/write information.

VDN Exceptions Window

To define VDN exceptions and to turn on *CentreVu* CMS checking for VDN exceptions, you must complete the Administration: VDN Exceptions window shown in Figure 5-6. Table 5-6 describes the VDN Exceptions window fields.

Exceptions: Administration: VDN Exceptions G3V5_eas

VDNs:

Add
 Delete
 Find one
 Modify
 Next
 Previous

Active	Time Limit	Threshold	Exception Type
n	0	0	Time in vector (max)
n	0	0	Time at agent (min)
n	0	0	Time at agent (max)
n		0	Number calls abandoned while in vector
n		0	Number calls forced busy
n		0	Number calls disconnected
n		0	Number calls in an ACD split queue
n		0	Number calls that flowed into VDN
n		0	Number calls that flowed out of VDN
n		0	Number calls interflowed out of VDN
n		0	Number calls handled by backup split
n		0	Number unsuccessful lookahead interflow attempts
n		0	Number unsuccessful adjunct routing attempts
n	0	0	Rolling Average Speed of Answer (seconds)

Figure 5-6: VDN Exceptions Window

CentreVu CMS checking for VDN exceptions begins when a call connects to the VDN and ends when the call is disconnected, sent to another VDN, sent to an external destination, or transferred. The call remains connected to the VDN if:

- the call routes to another vector (by the “go to vector” step), or,
- the call is sent (by a “route to” or “adjunct routing” step) to an extension (other than a VDN) internal to the local switch.

Table 5-6: VDN Exceptions Window Fields

Field	Description
VDN(s) :	Enter the VDN numbers or names for which you want to set up or modify checking for VDN exceptions.
Active (Required)	Enter a y to turn a desired exception type on, or an n to turn it off.
Time Limit (Required)	For each desired timed exception type, enter the length of time to wait before triggering the counting of an occurrence against the exception threshold. Triggering occurs when the time exceeds or falls below the limit. Enter the time in seconds, from 0 to 28800. This field requires an entry even if the Active field value is “no” (n).
Threshold (Required)	For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above the specified number generates an exception. If you want to be notified upon the first occurrence of an exception, enter a 0 in this field. This field requires an entry even if the Active field value is “no” (n).
Time in vector (max)	This is the length of time that a call is connected to a vector. An occurrence is counted against the threshold when the time exceeds the number of seconds specified in the Time Limit field. This exception cannot trigger more than once within an interval.
Time at agent (min)	This is the length of time that a call is connected to an agent while still in the VDN. An occurrence is counted against the threshold when the time does not last as long as the number of seconds specified in the Time Limit field.

Table 5-6: VDN Exceptions Window Fields (Contd)

Field	Description
Time at agent (max)	This is the length of time that a call is connected to an agent while still in the VDN. An occurrence is counted against the threshold when the time exceeds the number of seconds specified in the <code>Time Limit</code> field. This exception cannot trigger more than once within an interval.
Number calls abandoned while in vector	This is the number of calls that are abandoned while they are queued to at least one split/skill, ringing, or sent to other vectors in the ACD using the “go to” vector command. An occurrence is counted against the threshold each time a call is abandoned during vector processing. This exception cannot trigger more than once within an interval.
Number calls forced busy	This is the number of calls that received a forced busy while in the VDN. An occurrence is counted against the threshold each time a call is given a busy signal by the switch. Calls that received a forced busy after they were sent to other vectors (by a “go to vector” step) in the ACD are included in the count. This exception cannot trigger more than once within an interval.
Number calls disconnected	This is the number of calls that were disconnected: • by the “disconnect” vector command, • by the vector disconnect timer, or, • because the calls reached the end of vector processing without being queued. (This applies to G3V2 and later.) An occurrence is counted against the threshold each time a call is automatically disconnected from the switch (see Disconnect command). Calls that disconnected after receiving a busy signal via the Busy command are not included. This exception cannot trigger more than once within an interval.

Table 5-6: VDN Exceptions Window Fields (Contd)

Field	Description
Number calls in an ACD split/skill queue	This is the total number of calls that are in queue for all main and backup splits or skills. An occurrence is counted when this number exceeds the threshold. Calls that queued to a split/skill after they were sent to other vectors by a “go to vector” step in the ACD are included. Since this condition can come and go, you receive an exception each time the threshold is exceeded.
Number calls that flowed into VDN	This counts an occurrence against the occurrence threshold each time a call connects to the VDN for one of three reasons: 1. The call was routed to the VDN by a “route to” step from a vector in the local ACD. 2. The call was transferred to the VDN from a local extension using the Transfer button while still being tracked by a different VDN. 3. The call was routed to the VDN by adjunct routing. Calls that connected to the VDN because of Look Ahead Interflow or normal interflow (where the call was sent from another switch) are not included in the count.
Number calls that flowed out of VDN	This is the routing of a call from the VDN to an external destination or other VDN. An occurrence is counted against the threshold each time a call is routed from the VDN to an external destination or to another VDN. This exception cannot trigger more than once within an interval.
Number calls interflowed out of VDN	This is the routing of a call from the VDN to an outside destination. An occurrence is counted against the threshold each time a call is routed from the VDN to a destination outside of the local switch. This exception cannot trigger more than once within an interval.
Number calls handled by backup split or skill	This is the number of calls that connected to an agent in a backup split or skill referenced by a “backup split or skill,” “messaging split or skill,” “route to split/skill” or “route to direct agent” step in the VDN's vector. An occurrence is counted against the threshold each time that a call is connected due to one of these steps. This exception cannot trigger more than once within an interval.

Table 5-6: VDN Exceptions Window Fields (Contd)

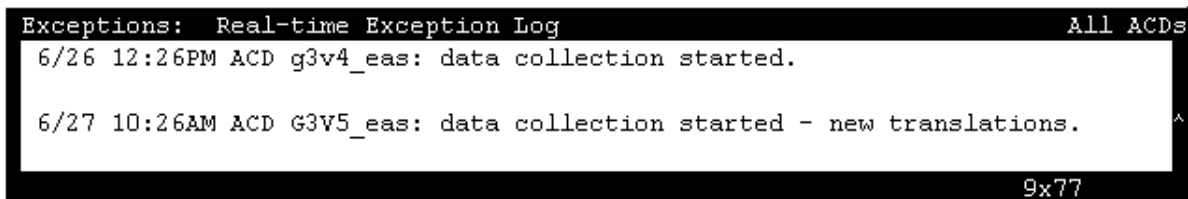
Field	Description
Number unsuccessful lookahead interflow attempts	An occurrence is counted against the threshold each time a call fails to Look Ahead Interflow to another switch. The result is that the call remains in the current VDN and vector for continued processing. This exception cannot trigger more than once within an interval.
Number unsuccessful adjunct routing attempts	The adjunct host computer does not take routing control of the call. Each time an “adjunct routing” step fails, an occurrence is counted against the threshold. This failure can occur because the trunk to the adjunct is down or busy, or because the adjunct software rejects control. This exception cannot trigger more than once within an interval.
Rolling Average Speed of Answer (seconds) (Generic 3 Version 4 and the ECS)	The switch sends the rolling average speed of answer for the measured VDN to <i>CentreVu</i> CMS. An occurrence is counted when <i>CentreVu</i> CMS receives an ASA that exceeds the time limit specified for a VDN. An exception is generated when the threshold is reached. The rolling ASA for the VDN is switch-based. The exception can be triggered only once per interval.

Real-time Exception Log

When first displayed, the Real-time Exception Log shown in Figure 5-7 displays exception records for the last ten exceptions. The log lists exception records in chronological order, with the oldest exception listed first.

The Real-time Exception Log holds up to 100 exception records. As each new exception occurs, *CentreVu* CMS adds a new record to the log. If the log already contains 100 records, *CentreVu* CMS deletes the oldest exception record from the log at the same time that it adds the new exception record.

The log simultaneously displays exception records for all elements of the ACD or ACDs for which you have exceptions permissions, regardless of whether the exceptions involve agents, splits or skills, trunk groups, VDNs, or vectors. You cannot select exception records for only one item, such as VDNs, or vectors. However, you see exception records on only specific ACD elements, such as splits or skills, for which you have exception permissions. See Chapter 7, “User Permissions,” for more information.



```
Exceptions: Real-time Exception Log All ACDs
6/26 12:26PM ACD g3v4_eas: data collection started.
6/27 10:26AM ACD G3V5_eas: data collection started - new translations.
9x77
```

Figure 5-7: Real-time Exception Log

How to Use the Real-time Exception Log

You can use the Real-time Exception Log in two ways:

- Access the log periodically, or whenever you get notification of an exception, to see exactly what has happened.
- Maintain the log as an open window so you can monitor exceptions as they occur.

When you first access the log, the most recent exception record is on the last line in the window. Then, as long as the log's window remains open, the log automatically scrolls to display each new exception record. If you manually page or scroll up to see older exception records, automatic scrolling for new exceptions stops until you page or scroll back to the bottom of the log.

What Exception Log Records Tell You

Each exception record in the Real-time Exception Log gives you the following:

- The date and time the exception occurred.
- The ACD name for which the exception occurred.
- The specific ACD element, such as a specific agent, split/skill, or VDN that was involved in the exception. If you have defined names in the Dictionary subsystem, the names display. These names may be truncated if they are longer than the space allowed in the exception record.
- The conditions you set up for exception checking in the associated Exceptions Administration window.

Note

The record tells you only that an activity has fallen outside of the exception conditions you set. Thus, for a peg count exception, the exception record shows the occurrence threshold you set, even though the actual number of occurrences may be substantially greater. For a timed exception, the exception record shows the time limit you set, not the actual duration of an occurrence.

Historical Reports

Historical reports give you information on out-of-the-ordinary occurrences, as tracked by *CentreVu* CMS. You set your own exceptions thresholds using the Administration part of the Exceptions subsystem.

Historical Reports Submenus

Figure 5-8 shows the Historical Reports submenu.

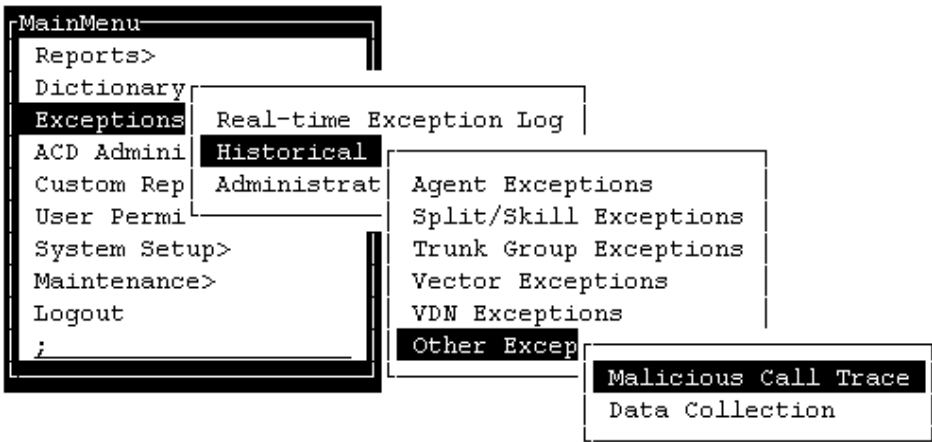


Figure 5-8: Historical Reports Submenus

How This Section is Organized

This section gives a brief description of each available historical report, examples of report input windows, and definitions of the input fields. It provides you with the information you need to complete any exceptions report input screen.

If you need to know what a report looks like or need report row and column definitions, refer to the *CentreVu™ CMS R3V5 Reports* (585-215-821) document.

The sections listed below follow this introduction.

- **Things to Know About Historical Reports** — This gives you information about things that can affect the information in exceptions historical reports and the types of reports available to you.
- **Prerequisite System Administration** — This describes system administration that must be performed prior to using the Historical Reports part of the Exceptions subsystem.
- **Relationships to Other Subsystems** — This describes how the Historical Reports subsystem interacts with the Timetable and Shortcut subsystems.

The historical reports included in this section are as follows:

- Agent Exceptions
- Split/Skill Exceptions
- Trunk Group Exceptions
- Vector Exceptions
- VDN Exceptions
- Malicious Call Trace
- Data Collection.

Each reports section has the following headings:

- **Prerequisite System Administration:** This is included only if a report has specific administration that must be performed in order to run successfully.
- **Relationships to Other Subsystems:** This is included only if a report has specific relationships that do not apply to the majority of real-time reports.

Things to Know About Historical Reports

The number of days in the past for which you can get exceptions is determined by the following:

- The number of exception records allocated for storage on the System Setup: Data Storage Allocation window. The maximum number of exception records of each type you can store is 2000.
- The frequency with which exceptions are recorded each day. For example, if you allocate storage for 1000 exception records, and about 100 exceptions occur each day, you will be able to save exception records for approximately the last 10 days.

The Audio Difficulty exception, found in the Trunk Group Exceptions selection of the Historical Reports menu, is always provided for all switches that support event (stroke) counts.

Prerequisite System Administration

The following system administration tasks need to be completed before running any historical reports.

Dictionary

If you want names to appear on split/skill, trunk group, agent, VDN, or vector reports, the names must first be entered in the Dictionary subsystem. If names are not assigned in the Dictionary subsystem, numbers appear as the default.

User Permissions

For a report to display data, you must have **read** permission for the ACD and for the split/skill, trunk group, VDN, or vector. For example, if you have read permission for splits 1, 2, and 4, and you try to run a report on splits 1, 4, and 5, you will receive data for splits 1 and 4. You will not receive data for split 5, because you do not have read permission for that split. See Chapter 7, "User Permissions," for more information.

Relationships to Other Subsystems

Exceptions historical reports interact with the Timetable and Shortcut subsystems as described below.

Timetable and Shortcut

You can place any historical report on a timetable. If your report fails to run on a timetable, an error is logged in the customer Error Log Report. For more information, see the Maintenance: Error Log Report. A message is not sent to the customer Error Log Report if the report runs successfully. The Timetable: List All window also shows the success or failure status of a timetable's last run.

You can place any historical report on a shortcut. See Chapter 3, "Timetable and Shortcut".

Agent Exceptions Historical Report

The Agent Exceptions historical report shows exceptions that have occurred in the past for the agents you select. For each agent exception, the report shows the time, agent, and type of exception that occurred.

Prerequisite System Administration

- To get data for an agent exception:
 - checking for exceptions on the Administration: Agent Exceptions window must be turned on (active) for the time period of the report, and
 - exceptions must have occurred for the active exception types.

Things to Know About This Report

- See Agent Exceptions—Input Fields in this chapter for definitions of the agent exception types.
- Although exceptions data can be used in custom reports, the reports themselves cannot be copied and customized.

Agent Exceptions Input Window

You must complete the Agent Exceptions Input window shown in Figure 5-9 to run an Agent Exceptions historical report. Table 5-7 describes the Agent Exceptions Input window fields. Use the tab key or the scroll SLK to scroll to fields not shown when the window first opens.

```
Exceptions: Historical Reports: Agent Exceptions Input      G3V5_eas
Run
Date: _____
Split/Skill: _____
Agent(s): _____
Order by (Select one):
  <X> Time
  <_> Agent

Exceptions (select as many as you wish):
  [_] Time available
  [_] Time on inbound ACD call (min)
  [_] Time on inbound ACD call (max)
  [_] Time in after call work
  [_] Time on inbound ACW call
  [_] Number of inbound ACW calls/agent
  [_] Time on outbound ACW call
  [_] Number of outbound ACW calls/agent
  [_] Time in AUX work
  [_] Time on inbound AUX call
  [_] Number of inbound AUX calls/agent
  [_] Time on outbound AUX call
```

Figure 5-9: Agent Exceptions Input Window

Table 5-7: Agent Exceptions Input Window Fields

Field	Description
Date: (Required)	Enter the date for which you want the report. Enter date in MM/DD/YY format (for example, 4/15/96), or as a relative day (for example 0 for today, -1 for yesterday, or -7 for one week ago).
Split/Skill: (Required)	Enter the Split/Skill name or number for which you want a report.
Agent(s):	Enter the agent names for which you want a report. You can leave this blank to see exceptions for all agents in the split/skill.
Order by (Select one):	Enter an x in either the Time or Agent field to determine how the exceptions data for each day is sorted. If you select Time, exceptions data are listed by the time exceptions occurred. If you select Agent, exceptions data are listed numerically by login ID.
Exceptions (Select any you wish):	Enter an x in the field for each exception type that you want to include in the report. Enter a blank (space) next to each exception type you do not want in the report.
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file will be overwritten with the new report data. The file is in your home directory in the <i>UNIX</i>[*] system/<i>Solaris</i>[†] system (/usr/<your login ID>) unless you specify a full path name. This window scrolls automatically when you move the cursor to fields not currently visible.

* UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

† Solaris is a trademark of Sun Microsystems, Inc.

Agent Exceptions Report Example

Figure 5-10 shows an example of an Agent Exceptions report. Table 5-8 describes the Agent Exceptions report fields.

03/20/94 08:30 AM

CentreVu(TM) CMS

Windows: 1 of 1

Agent Exceptions

Date: 5/27/93

Printed: 05/28/93 09:30 PM

Split/Skill: 1

ACD 1

Time	Agent Name	LoginID	Exception	Reason Code	Time Limit	Threshold
08:47AM	Klein, Cal	5641	Time on inbound ACD call (max)		300	2
09:32AM	Birkby, Emma	5555	Time available		300	1
10:16AM	Birkby, Emma	5555	Time on inbound ACD call (min)		10	3
11:35AM	Nguyen, Jenny	5234	Invalid call work code			
01:04PM	Klein, Cal	5641	Could not be logged in			

Figure 5-10: Agent Exceptions Report Example

Table 5-8: Agent Exceptions Report Fields

Field	Description
Date	The date all the exceptions in the report occurred.
Printed	The date and time the report was printed.
Split/Skill	The name or number of the split or skill in which the exception occurred.
ACD	The name or number of the ACD in which the exception occurred.
Time	The time the exception occurred for the agent.
Agent Name	The name of the agent or login ID (if the name has not been administered) who had the exception.
Login ID	The login ID of the agent who had the exception.
Exception	The type of exception that occurred.
Reason Code	The reason associated with the AUX state.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for <i>CentreVu</i> CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field on the Administration: Agent Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Agent Exceptions window.

Split/Skill Exceptions Historical Report

The Split/Skill Exceptions historical report shows exceptions that have occurred in the past for the split/skill you select. For each split/skill exception, the report shows the time and type of exception that occurred.

Prerequisite System Administration

- To get data for a split or skill exception:
 - checking for exceptions on the Split/Skill Exceptions Administration window must have been turned on (active) for the time period of the report, and
 - exceptions must have occurred for active exception types.

Things to Know About This Report

- See Split/Skill Exceptions—Input Fields in this chapter for definitions of the split/skill exception types.
- Although exceptions data can be used in custom reports, the reports themselves cannot be copied and customized.

Split/Skill Exceptions Input Window

You must complete the Historical Reports: Split/Skill Exceptions Input window shown in Figure 5-11 to run a Split/Skill Exceptions historical report. Table 5-9 describes the Split/Skill Exceptions Input window fields. Use the tab key or the scroll SLK to scroll to fields not shown when the window first opens.

Exceptions: Historical Reports: Split/Skill Exceptions Input G3V5_eas
Run

Date:

Split(s)/Skill(s):

Order by (Select one):

☒ Time

☐ Split/Skill

Exceptions (select as many as you wish):

- ☐ Time call has waited in queue
- ☐ Number calls waiting
- ☐ Number calls abandoned
- ☐ Average speed of answer (seconds)
- ☐ Number intraflowed-out calls
- ☐ Number intraflowed-in calls
- ☐ Number interflowed-out calls
- ☐ Number calls handled as backup
- ☐ Number calls transferred
- ☐ Number calls offered while queue full
- ☐ Expected Wait Time (pri Top) exceeds threshold
- ☐ Expected Wait Time (pri High) exceeds threshold

31x61

Figure 5-11: Split/Skill Exceptions Input Historical Reports Window

Table 5-9: Split/Skill Input Window Fields

Field	Description
Date: (Required)	Enter the date for which you want the report. Enter date in MM/DD/YY format (for example, 4/15/96), or as a relative day (for example 0 for today, -1 for yesterday, or -7 for one week ago).
Split(s)/Skill(s):	Enter the Split/Skill names or numbers for which you want a report. If you want a report for all available splits or skills, leave this field blank, or complete this field to restrict the report to certain splits or skills.
Order by (Select one):	Enter an x in either the Time or Split/Skill field to determine how the exceptions data for each day is sorted. If you select Time , exceptions data are listed by the time exceptions occurred. If you select Split/Skill , exceptions data are listed numerically by Split/Skill number.
Exceptions (Select any you wish):	Enter an x in the field for each exception type that you want to include in the report. Enter a blank (space) next to each exception type you do not want in the report.
Report destination (Select one):	Enter an x next to Terminal , Printer , or File . Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file will be overwritten with the new report data. The file is in your home directory in the <i>UNIX</i> system/<i>Solaris</i> system (/usr/<your login ID>) unless you specify a full path name. This window scrolls automatically when you move the cursor to fields not currently visible.

Split/Skill Exceptions Report Example

Figure 5-12 shows an example of a Split/Skill Exceptions report.
Table 5-10 describes the Split/Skill Exceptions report fields.

08/20/96 08:30 AM

CentreVu(TM) CMS

Windows: 1 of 1

Split/Skill Exceptions

Date: 7/27/96

Printed: 08/20/96 09:30 PM
ACD 1

Time	Split/Skill	Exception	Time Limit	Threshold
10:02AM	Catalog Sales	Number calls waiting		20
10:04AM	Catalog Sales	Average speed of answer	10	0
10:07AM	Customer Service	Number calls waiting		10
10:09AM	Catalog Sales	Expected wait time (pri top)	10	1
10:13AM	Customer Service	Number calls waiting		10
10:22AM	Catalog Sales	Expected wait time (pri high)	15	5
10:28AM	Service	Expected wait time (pri medium)	30	10
10:37AM	Catalog Sales	Expected wait time (pri low)	45	15
10:45AM	Catalog Sales	Number calls abandoned		15
10:53AM	Service	Rolling average speed of answer	20	10

Figure 5-12: Split/Skill Exceptions Report Example

Table 5-10: Split/Skill Exceptions Report Fields

Field	Description
Date	The date all the exceptions in the report occurred.
Printed	The date and time the report was printed.
ACD	The name or number of the ACD in which the exception occurred.
Time	The time the exception occurred for the split or skill.
Split/Skill	The name or number of the split or skill that had the exception.
Exception	The type of exception that occurred.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for <i>CentreVu</i> CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field as specified on the Administration: Split/Skill Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Split/Skill Exceptions window.

Trunk Group Exceptions Historical Report

The Trunk Group Exceptions historical report shows exceptions that have occurred in the past for the trunk groups you select. For each trunk group exception, the report shows the time and type of exception that occurred.

Prerequisite System Administration

- To get data for a trunk group exception:
 - checking for exceptions on the Administration: Trunk Group Exceptions window must have been turned on (active) for the time period of the report, and
 - exceptions must have occurred for the active exception types.

Things to Know About This Report

- See Trunk Group Exceptions—Input Fields in this chapter for definitions of the trunk group exception types.
- The Audio Difficulty exception is always provided for all switches that support event (stroke) counts.
- Although exceptions data can be used in custom reports, the reports themselves cannot be copied and customized.

Trunk Group Exceptions Window

You must complete the Historical Reports: Trunk Group Exceptions Input window shown in Figure 5-13 to run a Trunk Group Exceptions historical report. Table 5-11 describes the Trunk Group Exceptions Input window fields. Use the tab key or the scroll SLK to scroll to fields not shown when the window first opens.

Exceptions: Historical Reports: Trunk Group Exceptions Input G3V5_eas

Run

Date: _____

Trunk Groups: _____

Order by (Select one):

- <x> Time
- <_> Trunk Group
- <_> Trunk location

Exceptions (select as many as you wish):

- ☐ Time trunk in use (min)
- ☐ Time trunk in use (max)
- ☐ Time any trunk maintenance busy
- ☐ Length of time all trunks busy
- ☐ Number trunk failures in group
- ☐ Number of trunks in use
- ☐ Number of trunks maintenance busy
- ☐ Number of failures on a single trunk
- ☐ Audio difficulty

Report destination (Select one):

26x60

Figure 5-13: Trunk Group Exceptions Input Window

Table 5-11: Trunk Group Exceptions Input Window Fields

Field	Description
Date: (Required)	Enter the date for which you want the report. Enter date in MM/DD/YY format (for example, 4/15/96), or as a relative day (for example 0 for today, -1 for yesterday, or -7 for one week ago).
Trunk group(s):	Enter the trunk group names or numbers for which you want a report. If you want a report for all available trunk groups, leave this field blank, or complete this field to restrict the report to certain trunk groups.
Order by (Select one):	Enter an x in either the Time, Trunk group, or Trunk location field to determine how the exceptions data for each day is sorted. If you select Time, exceptions data are listed by the time exceptions occurred. If you select Trunk group, exceptions data are listed numerically by trunk group. If you select Trunk location, exceptions data are listed numerically by trunk equipment location.
Exceptions (Select any you wish):	Enter an x in the field for each exception type that you want to include in the report. Enter a blank (space) next to each exception type you do not want in the report.
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file will be overwritten with the new report data. The file is in your home directory in the <i>UNIX</i> system/<i>Solaris</i> system (/usr/<your login ID>) unless you specify a full path name. This window scrolls automatically when you move the cursor to fields not currently visible.

Trunk and Trunk Group Exceptions Report Example

Figure 5-14 shows an example of a Trunk and Trunk Group Exceptions report. Table 5-12 describes the Trunk and Trunk Group Exceptions report fields.

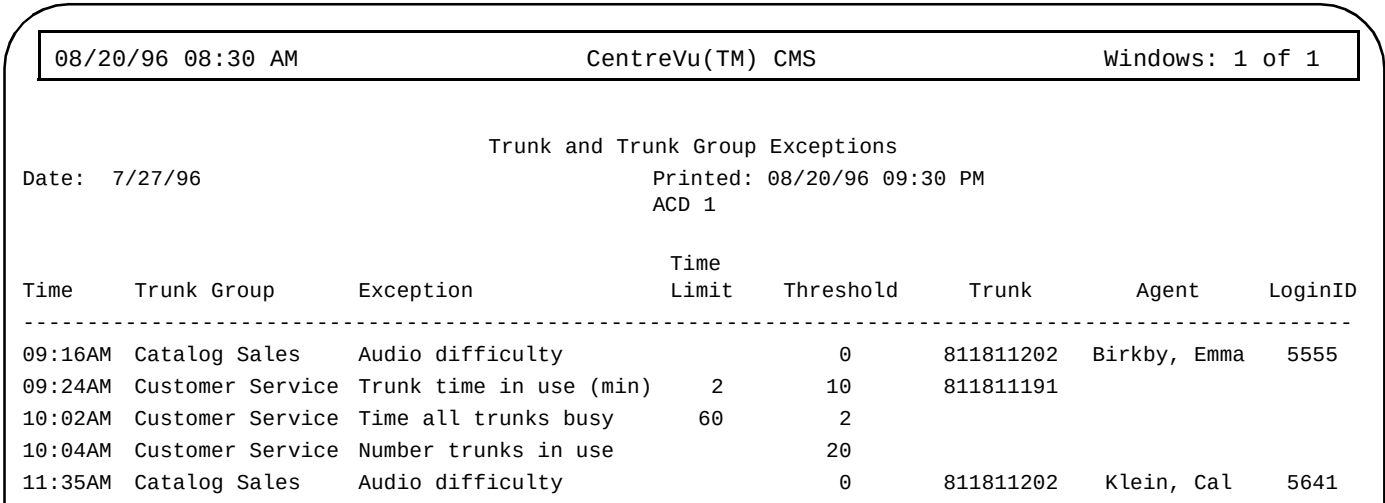


Figure 5-14: Trunk and Trunk Group Exceptions Report Example

Table 5-12: Trunk and Trunk Group Exceptions Report Fields

Field	Description
Date	The date all the exceptions in the report occurred.
Printed	The date and time the report was printed.
ACD	The name or number of the ACD in which the exception occurred.
Time	The time the exception occurred for the trunk or trunk group.
Trunk Group	The name or number of the trunk group that had the exception.
Exception	The type of exception that occurred.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for <i>CentreVu</i> CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field in the Administration: Trunk Group Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Trunk Group Exceptions window.
Trunk	The trunk number that had the exception. If the exception is for a trunk group, this field will be blank.
Agent	The name of the agent who reported audio difficulty.
Login ID	The login ID of the agent who reported the audio difficulty.

Vector Exceptions Historical Report

Note The Vector Exceptions historical report is available only if you have purchased the Vectoring feature.

The Vector Exceptions historical report shows exceptions that have occurred in the past for the vectors you select. For each vector exception, the report shows the time, vector, and type of exception that occurred.

Prerequisite System Administration

- To get data for an exception:
 - checking for vector exceptions on the Administration: Vector Exceptions window must have been turned on for the time period of the report, and
 - exceptions must have occurred for the active exception types.

Things to Know About This Report

- See Vector Exceptions—Input Fields in this chapter for definitions of the vector exception types.
- Although exceptions data can be used in custom reports, the reports themselves cannot be copied and customized.

Vector Exceptions Input Window

You must complete the Historical Reports: Vector Exceptions Input window shown in Figure 5-15 to run a Vector Exceptions Input historical report. Table 5-13 describes the Vector Exceptions Input window fields.

Exceptions: Historical Reports: Vector Exceptions Input G3V5_eas

Run

Date: ☐ _____

Vectors: _____

Order by (select one):

<x> Time

<_> Vector

Exceptions (select as many as you wish):

☐ Time in vector (max)

☐ Number calls abandoned while in vector

☐ Number calls forced busy

☐ Number calls disconnected

☐ Number calls in an ACD split queue

☐ Number unsuccessful lookahead interflow attempts

☐ Number unsuccessful adjunct routing attempts

Report destination (Select one):

<x> Terminal

<_> Printer, Printer name: _____

<_> File,

23x60

Figure 5-15: Vector Exceptions Input Window

Table 5-13: Vector Exceptions Input Window Fields

Field	Description
Date: (Required)	Enter the date for which you want the report. Enter date in MM/DD/YY format (for example, 4/15/96), or as a relative day (for example 0 for today, -1 for yesterday, or -7 for one week ago).
Vectors:	Enter the vector numbers or names for which you want a report. If you want a report for all available vectors, leave this field blank.
Order by (Select one):	Enter an x in either the Time or Vector field to determine how the exceptions data for each day is sorted. If you select Time, exceptions data are listed by the time exceptions occurred. If you select Vector, exceptions data are listed by vector number.
Exceptions (Select any you wish):	Enter an x in the field for each exception type that you want to include in the report. Enter a blank (space) next to each exception type you do not want in the report.
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file will be overwritten with the new report data. The file is in your home directory in the <i>UNIX</i> system/<i>Solaris</i> system (/usr/<your login ID>) unless you specify a full path name. This window scrolls automatically when you move the cursor to fields not currently visible.

Vector Exceptions Report Example

Figure 5-16 shows an example of a Vector Exceptions report. Table 5-14 describes the Vector Exceptions report fields.

08/20/96 08:30 AM		CentreVu(TM) CMS		Windows: 1 of 1	
Vector Exceptions					
Date: 07/27/96			Printed: 08/20/96 04:15 PM		
			ACD: burbank		
Time	Vector	Exception	Time Limit	Threshold	

09:16AM	Weekday Sales	Number calls abandoned in vector		20	
9:24AM	Weekday Sales	Calls in ACD split queue		10	
10:02PM	Weekday Cust Serv	Calls forced busy		5	

Figure 5-16: Vector Exceptions Report Example

Table 5-14: Vector Exceptions Report Fields

Field	Description
Date	The date the exception occurred.
Printed	The date and time the report was printed.
ACD	The name or number of the ACD in which the exception occurred.
Time	The time the exception occurred.
Vector	The vector name or number that had the exception.
Exception	The type of exception that occurred.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for <i>CentreVu</i> CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field on the Administration: Vector Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Vector Exceptions window.

VDN Exceptions Historical Report

Note

The VDN Exceptions Input historical report is available only if you have purchased the Vectoring feature.

The VDN Exceptions Input historical report shows exceptions that have occurred in the past for the VDNs you select. For each VDN exception, the report shows the time, VDN, vector, and type of exception that occurred.

Prerequisite System Administration

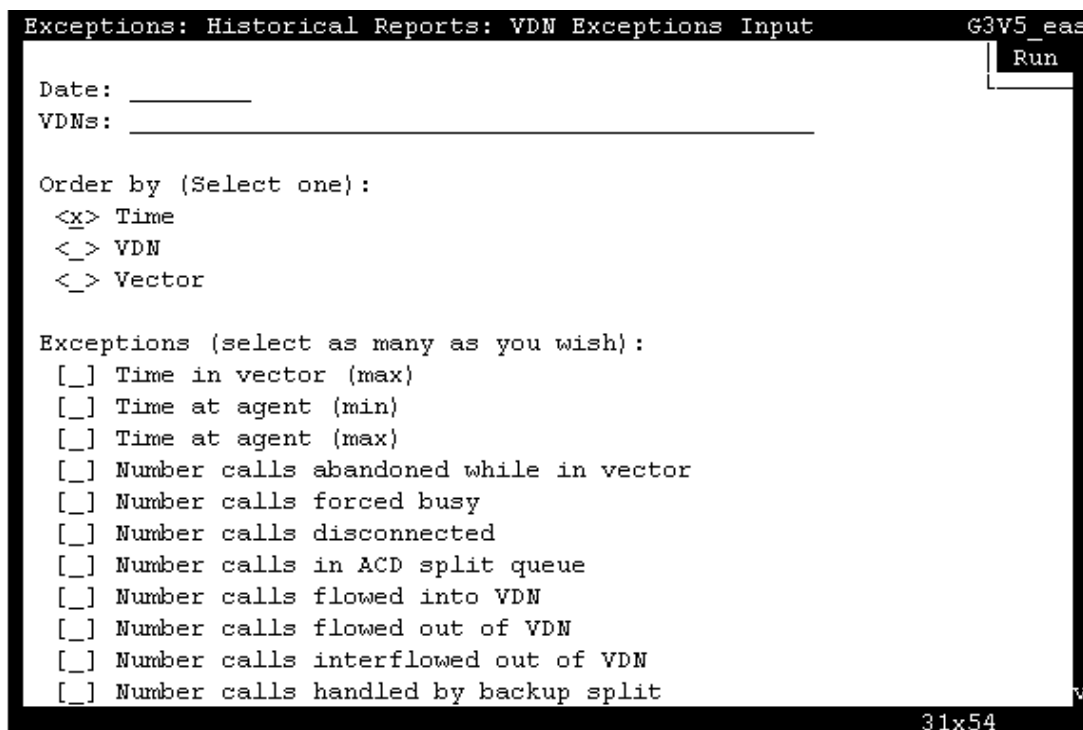
- To get data for an exception:
 - checking for VDN exceptions on the Administration: VDN Exceptions window must have been turned on for the time period of the report, and
 - exceptions must have occurred for the active exception types.

Things to Know About This Report

- See VDN Exceptions—Input Fields in this chapter for definitions of the VDN exception types.
- Although exceptions data can be used in custom reports, the reports themselves cannot be copied and customized.

VDN Exceptions Input Window

You must complete the Historical Reports: VDN Exceptions Input window shown in Figure 5-17 to run a VDN Exceptions Input historical report. Table 5-15 describes the VDN Exceptions Input window fields. Use the tab key or the scroll SLK to scroll to fields not shown when the window first opens.



```
Exceptions: Historical Reports: VDN Exceptions Input      G3V5_eas
Run
Date: _____
VDNs: _____

Order by (Select one):
<X> Time
<_> VDN
<_> Vector

Exceptions (select as many as you wish):
[ ] Time in vector (max)
[ ] Time at agent (min)
[ ] Time at agent (max)
[ ] Number calls abandoned while in vector
[ ] Number calls forced busy
[ ] Number calls disconnected
[ ] Number calls in ACD split queue
[ ] Number calls flowed into VDN
[ ] Number calls flowed out of VDN
[ ] Number calls interflowed out of VDN
[ ] Number calls handled by backup split
31x54
```

Figure 5-17: VDN Exceptions Input Window

Table 5-15: VDN Exceptions Input Window Fields

Field	Description
Date: (Required)	Enter the date for which you want the report. Enter date in MM/DD/YY format (for example, 4/15/96), or as a relative day (for example 0 for today, -1 for yesterday, or -7 for one week ago).
VDN(s) :	Enter the VDN numbers or names for which you want a report. If you want a report for all available VDNs, leave this field blank.
Order by (Select one):	Enter an x in either the Time, VDN, or Vector field to determine how the exceptions data for each day is sorted. If you select Time, exceptions data are listed by the time exceptions occurred. If you select VDN or vector, exceptions data are listed numerically by VDN or vector, respectively.
Exceptions (Select any you wish):	Enter an x in the field for each exception type you want to include in the report. Enter a blank (space) next to each exception type you do not want in the report.
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file will be overwritten with the new report data. The file is in your home directory in the <i>UNIX</i> system/<i>Solaris</i> system (/usr/<your login ID>) unless you specify a full path name. This window scrolls automatically when you move the cursor to fields not currently visible.

VDN Exceptions Report Example

Figure 5-18 shows an example of a VDN Exceptions report. Table 5-16 describes the VDN Exceptions report fields.

08/20/96 08:30 AM

CentreVu(TM) CMS

Windows: 1 of 1

VDN Exceptions

ACD: burbank

Date: 07/27/96

Printed: 08/20/96 04:35 PM

Time	VDN	Exception	Time Limit	Threshold
10:01AM	Catalog Sales	Number calls abandoned in vector	10	12
10:02AM	Catalog Sales	Calls in ACD split queue	15	5
10:06PM	Catalog Sales	Calls disconnected	30	3
10:21AM	Service	Rolling average speed of answer	45	15
10:33AM	Service	Rolling average speed of answer	20	10

Figure 5-18: VDN Exceptions Report Example

Table 5-16: VDN Exceptions Report Fields

Report Heading	Description
ACD	The name or number of the ACD in which the exception occurred.
Date	The date the exception occurred.
Printed	The date and time the report was printed.
Time	The time the exception occurred.
VDN	The VDN name or number that had the exception.
Vector	The vector name or number associated with the VDN that had the exception.
Exception	The type of exception that occurred.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for <i>CentreVu</i> CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field on the Administration: VDN Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: VDN Exceptions window.

Malicious Call Trace Historical Report

The Malicious Call Trace historical report gives you specific information on malicious call occurrences. The report shows the date and time each call occurred, and the agent and split or skill that received the call. If you have the Automatic Number Identification/Station Number Identification (ANI/SID) network feature with a Generic 2 switch, or a Generic 3 Version 4 or later G3 switch, or the ECS, the report also shows where the call originated.

Prerequisite System Administration

- You must have exception permission for the appropriate split or skill to be notified of a malicious call exception.

Things to Know About This Report

- Although exceptions data can be used in custom reports, the reports themselves cannot be copied and customized.

Malicious Call Trace Input Window

You must complete the Historical Reports: Malicious Call Trace Input window shown in Figure 5-19 to run a historical report on malicious call occurrences. Table 5-17 describes the Malicious Call Trace Input window fields. Use the tab key to scroll to fields not shown when the window first opens.

Exceptions: Historical Reports: Malicious Call Trace Input G3V5_eas

Dates: _____

Report destination (Select one):

<x> Terminal

<_> Printer, Printer name: _____

<_> File, File name: _____

Run

Figure 5-19: Malicious Call Trace Input Window

Table 5-17: Malicious Call Trace Input Window Fields

Field	Description
Dates: (Required)	Enter the date (or range of dates) that you want the report to cover. You can: • enter dates in a MM/DD/YY format (for example, 4/15/96) • enter dates as a relative day (for example 0 for today, -1 for yesterday, or -7 for one week ago) • use a semicolon to separate individual dates (for example, 4/15/96;4/17/96;4/18/96) • place a hyphen between entries to specify a range (for example, 4/15/96-4/18/96).
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file will be overwritten with the new report data. The file is in your home directory in the <i>UNIX</i> system/<i>Solaris</i> system (/usr/<your login ID>) unless you specify a full path name. This window scrolls automatically when you move the cursor to fields not currently visible.

Malicious Call Trace Report Example

Figure 5-20 shows an example of a Malicious Call Trace report. Table 5-18 describes the Malicious Call Trace report fields.

08/20/96 08:30 AM

CentreVu(TM) CMS

Windows: 1 of 1

Malicious Call Trace Report

ACD: 1

Printed: 07/28/96 09:30 PM

Date	Time	Split/Skill	Agent	LoginID	Trunk group	Trunk	VDN	ANI/SID
04/12/93	09:32AM	Customer service	Oilman, Kay	5555	Customer service	811202	5882	2015552434
04/13/93	11:12PM	Sales	Smith, Jack	5432	Sales	821181	5885	2015552434

Figure 5-20: Malicious Call Trace Report Example

Table 5-18: Malicious Call Trace Report Fields

Field	Description
ACD	The name or number of the ACD in which the malicious call occurred.
Printed	The date and time the report was printed.
Date	The date the malicious call in the report occurred.
Time	The time the malicious call occurred.
Split/Skill	Name of the split or skill that carried the malicious call.
Agent	The name of the agent that received the malicious call.
Login ID	The login ID of the agent.
Trunk Group	The name of the trunk group that carried the malicious call.
Trunk	The trunk number that carried the malicious call.
VDN	The VDN number that carried the malicious call.
ANI/SID	For Generic 2 and G3V4 and later G3 switches only, and the ECS, the ANI/SID number from which the call originated.
Information Indicator	Information Indicator digits (II digits) are a two-digit string provided by ISDN PRI to indicate the type of originating line of the caller, for example, a pay phone, a hospital, or a prison. The column is blank if the call does not contain Information Indicator digits.

Data Collection Historical Report

The Data Collection historical report shows any event that affects data collection. This includes starting or stopping data collection, resetting the clock, and session (link) down.

Prerequisite System Administration

- You must have exceptions permissions for the ACD to be notified of a link down exception.

Things to Know About This Report

- Although exceptions data can be used in custom reports, the reports themselves cannot be copied and customized.

Data Collection Input Window

You must complete the Data Collection Input window shown in Figure 5-21 to run a Data Collection historical report. Table 5-19 describes the Data Collection Input window fields.

The screenshot shows a window titled "Exceptions: Historical Reports: Data Collection Input" with a user identifier "G3V5_eas" in the top right corner. A "Run" button is located in the top right. The main content area contains the following fields and options:

- Dates:** A text input field with a cursor.
- Report destination (Select one):**
 - ☒ Terminal
 - ☐ Printer, Printer name: _____
 - ☐ File, File name: _____

Figure 5-21: Data Collection Input Window

Table 5-19: Data Collection Input Window Fields

Field	Description
Dates: (Required)	Enter the date (or range of dates) that you want the report to cover. You can: • enter dates in a MM/DD/YY format (for example, 4/15/96) • enter dates as a relative day (for example 0 for today, -1 for yesterday, or -7 for one week ago) • use a semicolon to separate individual dates (for example, 4/15/96;4/17/96;4/18/96) • place a hyphen between entries to specify a range (for example, 4/15/96-4/18/96).
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file will be overwritten with the new report data. The file is in your home directory in the <i>UNIX</i> system/<i>Solaris</i> system (/usr/<your login ID>) unless you specify a full path name. This window scrolls automatically when you move the cursor to fields not currently visible.

Data Collection Report Example

Figure 5-22 shows an example of a Data Collection report. Table 5-20 describes the Data Collection report fields.

```

Exceptions: Historical Reports: Data Collection: Report      g3v5_eas

      Data Collection Report

      ACD: g3v5_eas                      Printed: 10/26/96  3:14 PM

Date      Time      Event
10/17/96   1:21 PM   data collection busied out
10/17/96   1:34 PM   data collection started
10/17/96   3:55 PM   data collection busied out
10/17/96   3:55 PM   data collection started

Successful
  
```

Figure 5-22: Data Collection Report Example

Table 5-20: Data Collection Report Fields

Field	Description
ACD	The name or number of the ACD associated with the data collection.
Printed	The date and time the report was printed.
Date	Date the data collection event occurred.
Time	Time the data collection event occurred.
Event	Any event that affected data collection, for example: Data collection started. Data collection started - new translations. Data collection turned off. Data collection timed out. Unable to receive data from switch. Data collection clock was reset. Data collection session down. Switch reloaded — agents must log in again.

Chapter 6

ACD Administration

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DEFINITY ECS/Generic 3 Switches with EAS

Introduction

From the ACD Administration subsystem, you can do the following:

- Set an acceptable service level and service level increments which are used to track answered and abandoned calls in the Split/Skill Call Profile reports.
- Start an agent trace and list agents being traced.
- Run a report that lists trunk group members and their equipment locations.
- View trunk group assignments.

With the Call Vectoring feature, you also can do the following:

- Define vectors.
- Run a report that lists, by vector, the trunk groups and VDNs that direct calls to vectors.
- Set an acceptable service level and service level increments which are used to track answered and abandoned calls in the VDN Call Profile reports.
- Change VDN-to-vector assignments.

With the Expert Agent Selection (EAS) feature purchased and enabled, you can also do the following:

- Change an agent's assigned skills (for the *DEFINITY*® Enterprise Communications Server (ECS) Release 5 and the Generic 3 Version 2 or later switches).
- Change one assigned skill for as many as 32 agents while the agents remain staffed (for the *DEFINITY* ECS and the Generic 3 Version 4 switch).
- Change VDN skill preferences.
- With the Call Vectoring and EAS features purchased and enabled for the *DEFINITY* ECS, you can run a report that displays agents currently in AUX work for a skill and their AUX work reason codes (if any), and also a report that displays a list of logged-in agents with their associated skills and skill levels.

DEFINITY ECS/G3 with EAS ACD Administration Menus

The items on the ACD Administration menu vary depending on the type of switch *CentreVu* CMS is connected to and the features that are available for and enabled on the switch. All items that appear on the ACD Administration menus for the *DEFINITY* ECS and the Generic 3 switches with the Call Vectoring and EAS features purchased and enabled are described in this section of the chapter.

Figure 6-1 shows the ACD Administration menu for the *DEFINITY* ECS and the Generic 3 Version 4 switch with the Call Vectoring and EAS features purchased and enabled. If you are using the *DEFINITY* ECS or the Generic 3 switch, you should continue reading this section.

Other Switches' Menus in This Chapter

Figure 6-21 shows the ACD Administration menu for the *DEFINITY* ECS and the Generic 3 switches with the Call Vectoring feature purchased and enabled, but **not** the EAS feature. Figure 6-22 shows the ACD Administration menu for the *DEFINITY* ECS and the Generic 3 switches without the Call Vectoring or the EAS feature purchased or enabled. If you are using the *DEFINITY* ECS or the Generic 3 switches without the EAS feature, you should begin reading “DEFINITY ECS/Generic 3 Switches Without EAS” on page 61.

Figure 6-39 shows the ACD Administration menu for the Generic 2.2 switch with both the Call Vectoring and EAS features purchased and enabled. Figure 6-40 shows the ACD Administration menu for Generic 2 switches with the Call Vectoring feature purchased and enabled, but **not** the EAS feature. Figure 6-41 shows the ACD Administration menu for Generic 2 switches without the Call Vectoring or the EAS feature purchased or enabled. If you are using the Generic 2 switches, you should begin reading “DEFINITY Generic 2 Switches” on page 111.

ACD Administration Menu with EAS

Figure 6-1 shows the ACD Administration menu for the *DEFINITY* ECS with the Call Vectoring and EAS features.

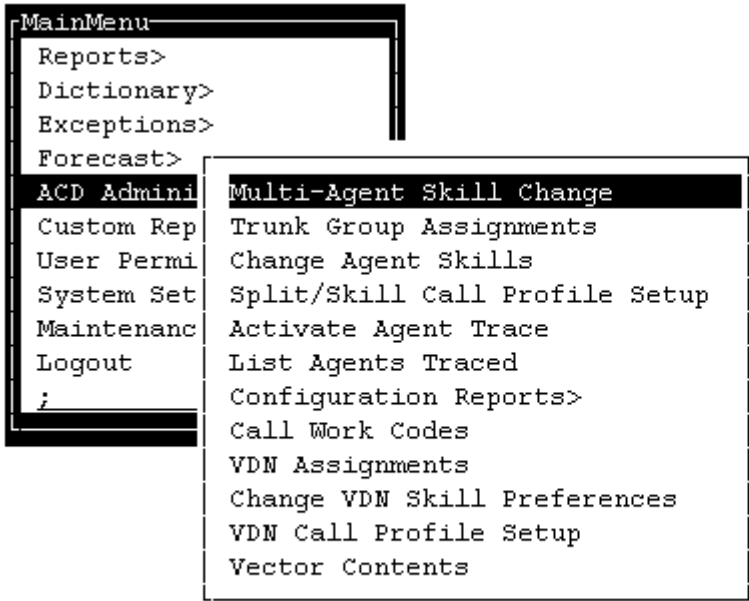


Figure 6-1: ACD Administration Menu—*DEFINITY* ECS with EAS

Multi-Agent Skill Change

Note

This item appears only if the EAS feature has been purchased and enabled on the *DEFINITY* ECS or Generic 3 Version 4 switch.

Purpose

Use the Multi-Agent Skill Change window to view current skill assignments or to change a skill for as many as 32 agents. You can also specify the skill level (1-16 for the *DEFINITY* ECS with EAS-PHD or 1-2 with EAS but **not** EAS-PHD) or skill type (primary or secondary for the Generic 3 Version 4 switch with EAS) for a skill that is added or modified.

Things to Know Before You Start

- If you have a Generic 3 Version 4 switch with the EAS feature, the Multi-Agent Skill Change window displays the single-character `New skill type` input field instead of the two-character `New skill level` field that is described in this section.
- When you change agent skills, the change is made in switch administration and remains in effect until you make another change.
- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** Screen-Labeled Key (SLK).
- The requested skill change takes place immediately for agents who are in the AUX work mode, available, or logged out. For agents who are handling calls (including non-ACD calls, calls on hold, and direct agent calls waiting in queue) or are in the After Call Work (ACW) mode, the change is pending until the agent logs out, changes to AUX work mode, or completes all calls and ACW and becomes available. When these conditions are met, the agents are automatically logged out and then logged back in with the new skill.

Note

For agents who frequently have calls on hold, skill changes can remain pending for a long time.

- See Appendix D, "CentreVu CMS and the Expert Agent Selection Feature" for more information about EAS.
- See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To change skills, you need **read/write** permission for the ACD Administration subsystem and for all affected skills. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
- To view skill assignments, you need **read** permission for the ACD Administration subsystem.

Relationships to Other Subsystems

Dictionary

To enter an Agent name in the Agent(s) field or a Skill name in the Current Skill or New skill fields, the name must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary".

Timetable

You can place the Multi-Agent Skill Change window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Note

When Timetable is used to change agent skills, information about the status of the change is not saved.

Multi-Agent Skill Change Window

Use the Multi-Agent Skill Change window (Figure 6-2) to view current skill assignments or to change one skill for as many as 32 agents.

Figure 6-2: Multi-Agent Skill Change (*DEFINITY* ECS or Generic 3 Version 4 with EAS)

Field/Action List Usage

Add

Adds a new skill to as many as 32 agents. To add a new skill, complete the New skill, New skill level (or type), and Agent(s) fields, and select Add from the action List.

Delete

Removes a skill from as many as 32 agents. To remove a skill, complete the `Current skill` and `Agent(s)` fields, and select `Delete` from the action list.

Note If an agent has only one skill assigned, it cannot be removed. If the current skill is designated the Direct Agent Skill for the agent, it cannot be removed.

Find one and List all

The `Find one` and `List all` actions apply only to the `Current skill` and `Agent(s)` fields. Furthermore, these actions find only staffed (logged-in) agents—agents who have the specified skill but are not staffed are not listed.

The `List all` action indicates whether an agent has a skill-assignment change pending or not. The `Pending?` column shows a `y` for an agent who has a skill-assignment change pending.

Modify

Replaces a current skill with a new skill or changes the skill level (or type) associated with a skill for as many as 32 agents.

To replace a current skill with a new skill, complete the `Current skill`, `New skill`, and `Agent(s)` fields and select `Modify` from the action list. The `New skill level (or type)` field is optional for the `Modify` action. If you do not enter a new skill level, the skill level associated with the current skill will be associated with the new skill.

To change the skill level associated with a skill, enter the current skill in both the `Current skill` and `New skill` fields, and then enter the new skill level in the `New skill level (or type)` field and the login IDs or names (must be previously assigned in the Dictionary subsystem) of the agents to whom the new skill level will apply in the `Agent(s)` field.

Note If the `Current skill` is also designated the Direct Agent Skill for the agent and the `Modify` action succeeds, the `New skill` will now be designated the Direct Agent Skill for the agent.

Note If you select `Add`, `Delete`, or `Modify` and the link to the *DEFINITY ECS* or switch is down, or the information you entered in the input window is not valid, etc., an Acknowledgment window displays the reason for failure.

Field Descriptions

Current skill:

Enter the current skill number or name (must be previously assigned in the Dictionary subsystem) you want to view or change. You must enter a value in this field for the **Delete** and **Modify** actions.

New skill:

Enter the new skill number or name (must be previously assigned in the Dictionary subsystem) to be added or changed. You must enter a value in this field for the **Add** and **Modify** actions. To change **only** the agents' skill level (or skill type), enter the same value in this field and the **Current skill** field, and a different value for level or (type) in the **New skill level** (or **New skill type**) field.

New skill level:

Enter a number from **1** (most skilled) to **16** (least skilled) or from **1** to **2** (without EAS-PHD) to indicate the skill level for each skill. (For Generic 3 Version 4 switches, enter a **P** or **p** if the skill is a primary skill or an **S** or **s** if the skill is a secondary skill in the **New skill type** field instead.) You must enter a value in this field for the **Add** action. If you leave this field blank and perform the **Modify** action, then the skill level (or type) associated with the agents' **Current skill** will be associated with the agents' **New skill**.

Agent(s):

Enter the login ID or name (must be previously assigned in the Dictionary subsystem) of as many as 32 agents for whom you want to view current skill assignments or change a skill. You must enter a value in this field for the **Add**, **Delete**, and **Modify** actions.

Status Window

If one or more of the requested skill changes fail or if changes are pending, a secondary status window shows the login IDs that were not changed and the reason, or the status of the pending skill changes.

Trunk Group Assignments



If you have not purchased and enabled the Call Vectoring feature on the *DEFINITY* ECS or Generic 3 switch, then this Trunk Group Assignments window is **not** available.

Purpose

Use the Trunk Group Assignments window (Figure 6-3) to see what VDNs or non-vector-controlled splits your trunk groups are assigned to.

Automatic-in trunk groups on the *DEFINITY* ECS or the Generic 3 switch must be assigned to VDNs or non-vector-controlled splits using a switch administration tool.



You cannot use this window to assign trunk groups or to change trunk group assignments.

Things to Know Before You Start

- DID trunk groups are **not** assigned to VDNs or splits since, with DID trunk groups, the Central Office passes VDN digits or split extension digits to the switch.
 - Trunk groups are **never** assigned to vector-controlled splits because vector-controlled splits can only receive calls through vector processing.
-

Prerequisite System Administration

- Trunk groups must be assigned to VDNs or splits using a switch administration tool. You can use *CentreVu* CMS only to **view** trunk-group assignments on the *DEFINITY* ECS and Generic 3 switches with the vectoring feature.
- To view trunk-group assignments, you must have **read** permission for the ACD Administration subsystem and for any trunk group(s), split(s), and VDN(s) you want to view. See "Feature Access" and either "Trunk Group Access" or "Split/Skill Access" or "VDN Access" in Chapter 7, "User Permissions" for more information.

Trunk Group
Assignments
Window (ECS/G3
with Vectoring)

Use the Trunk Group Assignments window (Figure 6-3) to view trunk-group assignments for the *DEFINITY* ECS and for Generic 3 switches with the Call Vectoring feature.

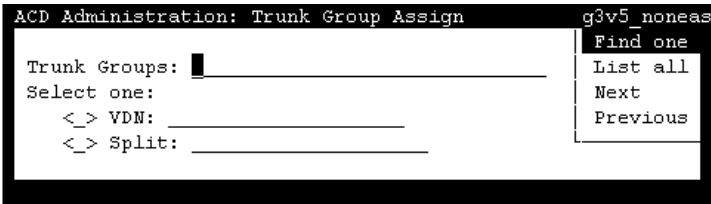


Figure 6-3: Trunk Group Assignments Window (*DEFINITY* ECS/Generic 3 with Vectoring)

Field/Action List
Usage

Find one
To view specific trunk group assignments, complete the Trunk Groups field and either the VDN or the Split field.

List all
Selecting List all with blank fields displays a list of trunk groups and the VDNs or splits to which they are assigned.

Field Descriptions

Trunk Groups:
Enter the number(s) of the trunk group(s) you want to view; or leave blank to see any trunk group assigned to the selected VDN or split/skill.

VDN:
Enter an **x** to select VDN as the object(s) to search for. Also, enter the number or name (must be previously assigned in the Dictionary subsystem) of the VDN whose assigned trunk group(s) you want to view.

Split:
Enter an **x** to select Split as the object(s) to search for. Also, enter the number or name (must be previously assigned in the Dictionary subsystem) of the split whose assigned trunk group(s) you want to view.

Change Agent Skills

Note

This menu item appears only for the *DEFINITY* ECS or Generic 3 Version 2, 3, or 4 switch with the EAS feature enabled.

Purpose

Use the Change Agent Skills window to view an agent's current skill assignments or to change one or more skills and the associated skill type (primary or secondary for Generic 3 Versions 2, 3 or 4 switches) or skill level (1-16 for the *DEFINITY* ECS with EAS-PHD; 1-2 without EAS-PHD).

Things to Know Before You Start

- If you have the *DEFINITY* ECS with the EAS feature, then you will see the window pictured in this section. This new window:
 - Displays the new `Direct Agent Skill` and `Call handling preference (Select one)` fields
 - Allows as many as 20 skills (each associated with one of 16 skill levels) if the Expert Agent Selection Preference Handling Distribution (EAS-PHD) feature has been purchased and enabled on the *DEFINITY* ECS. (If this feature is not enabled, then at most four skills and two levels may be used on this window.)
- If you have a Generic 3 Version 2, Version 3, or Version 4 switch with the EAS feature, you will see a different Change Agent Skills window than the one pictured in this section. That window displays:
 - A maximum of four skills instead of 20
 - Associated skill types (primary or secondary) instead of levels.
- When you change agent skills, the change is made in switch administration and remains in effect until you make another change.
- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current SLK**.
- The skill that is administered as `Skill 1` affects the way tracking is done for an agent. Extension calls and call-handling time are attributed to the first skill administered and successfully logged into. (For the Generic 3 Version 2, Version 3, or Version 4 switches, direct agent calls also are tracked similarly. But for the *DEFINITY* ECS, direct agent calls are tracked to the `Direct Agent Skill`.)

- For Generic 3 Version 4 switches and the *DEFINITY* ECS, the requested skill change takes place immediately for agents who are in the AUX work mode, available, or logged out. For agents who are handling calls (including non-ACD calls, calls on hold, and direct agent calls waiting in queue) or are in the ACW mode, the change is pending until the agent logs out, changes to AUX work mode, or completes all calls and ACW and becomes available. When these conditions are met, the agent is automatically logged out and logged back in with the new skill set.

Note

For agents who frequently have calls on hold, skill changes can remain pending for a long time.

- For Generic 3 Version 2 and Version 3 switches, the requested skill changes go into effect after the agent manually logs out.
- See Appendix D, "CentreVu CMS and the Expert Agent Selection Feature" for more information about EAS.
- See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To change agent skills, you need **read/write** permission for the ACD Administration subsystem and the skills to which the agents will be assigned. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
- To view skill assignments, you need **read** permission for the ACD Administration subsystem.

Relationships to Other Subsystems

Dictionary

To enter an Agent name in the `Agent` field or a Skill name in the `Skill` field, the name must first be entered in the Dictionary. See Chapter 4, "Dictionary" for more information on administering names for agents and skills.

Timetable

You can place the Change Agent Skills window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Note

When Timetable is used to change agent skills, information about the status of the change is not saved.

Change Agent Skills Window

Use the Change Agent Skills window (Figure 6-4) to view an agent's current skill assignments or to change one or more skills and the associated skill type (primary or secondary for the Generic 3 Version 2, 3, or 4 switches) or level (1-16 for the *DEFINITY* ECS with EAS-PHD; 1-2 with EAS but **not** EAS-PHD).

Skill	Level	Skill	Level
1: _____	—	11: _____	—
2: _____	—	12: _____	—
3: _____	—	13: _____	—
4: _____	—	14: _____	—
5: _____	—	15: _____	—
6: _____	—	16: _____	—
7: _____	—	17: _____	—
8: _____	—	18: _____	—
9: _____	—	19: _____	—
10: _____	—	20: _____	—

Figure 6-4: Change Agent Skills (*DEFINITY* ECS or Generic 3 with EAS)

Field/Action List Usage

Modify

Changes the skills and any associated skill levels for the specified agent.

For Generic 3 Version 4 switches and the *DEFINITY* ECS, the requested skill change takes place immediately for agents who are in the AUX work mode, available, or logged out. For agents who are handling calls (including non-ACD calls, calls on hold, and direct agent calls waiting in queue) or are in the ACW mode, the change is pending until the agent logs out, changes to AUX work mode, or completes all calls and ACW and becomes available.

Note

For agents who frequently have calls on hold, skill changes can remain pending for a long time.

For Generic 3 Version 2 and Version 3 switches, the requested skill changes go into effect after the agent manually logs out.

Field Descriptions**Agent :**

Enter the login ID or name (must be previously assigned in the Dictionary subsystem) of the agent whose skills you want to view (with the Find one action) or change (with the Modify action).

Direct agent skill:

Enter the number or name (must be previously entered in the Dictionary subsystem) of the skill to be used for queuing the specified agent's direct agent calls, or leave the field blank if you do not wish to assign this agent a Direct Agent Skill. If you enter a skill, it must also be assigned as one of the agent's skills in the **Skill** fields below, or *CentreVu* CMS will deny the request.

Call handling preference (Select one)

Choose between distributing calls to the agent based on the **Skill Level** administered for each of the agent's skills, or based on Greatest need. See Appendix D, "CentreVu CMS and the Expert Agent Selection Feature" for more information.

Skill 1: through 20:

Enter the number or name (must be previously entered in the Dictionary subsystem) of the skill to be assigned to the agent in each of the skill fields. (As many as 20 skill fields with EAS-PHD, or as many as 4 of the skill fields with EAS but *not* EAS-PHD.)

Each skill must be unique (the same skill cannot be specified twice) or may be blank on *CentreVu* CMS. The skill that is administered as **1:** has an impact on the way tracking is done for an agent. Extension calls and call-handling time are attributed to the first skill administered and successfully logged into. (For the Generic 3 Version 2, Version 3, or Version 4 switches, direct agent calls also are tracked similarly—to the first administered primary skill if one or more exists, or secondary skill if no primary skill exists. But for the *DEFINITY* ECS, direct agent calls are tracked to the skill that has been designated as the **Direct Agent Skill**.)

Level

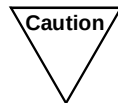
Enter a number from **1** to **16** to indicate the skill level for each skill. (Without EAS-PHD, use **1** or **2**.) **1** is the highest and **16** is the lowest skill level that an agent can be assigned. (Without EAS-PHD, **1** is primary and **2** is secondary.) The agent's "top skill" is the first skill among all the agent's assigned skills associated with that agent's highest skill level. For example, if an agent's highest skill level is 3, and level 3 is associated with two of the agent's assigned skills, then the first of the two level 3 skills is that agent's "top skill." The "top skill" concept is only useful for agents whose call handling preference is based on **Skill Level**.

Split/Skill Call Profile Setup

Purpose

Use the Split/Skill Call Profile Setup window to set a target *acceptable service level* (time limit in seconds) for calls to wait in queue before being answered and also to define the service level increments for split/skill call profile reports and graphs. You can then use the Split/Skill Call Profile reports to see how many calls were either answered or abandoned within each increment.

Things to Know Before You Start



You should turn off data collection to change the parameters in Call Profile Setup. See "Data Collection" in Chapter 8, "System Setup" for more information.

If you change the service level increments while CMS is collecting data, any data collected for the interval in which you made the change will be distorted. *CentreVu* CMS deletes the split/skill call profile data already collected for that interval and keeps only the split/skill call profile data collected in that interval after the change. *CentreVu* CMS then tries to combine the split/skill call profile data gathered both before and after the change into a single daily record of split/skill call profile data. As a result, some data are in the wrong service level increments. Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The increments shown on the report that includes the date on which the change was made will be the larger of the values for each increment before and after the change. For example, if you change from all "0s" to 1, 3, 5, 10, ..., the Split/Skill Call Profile report shows 1, 3, 5, 10, ... If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report shows 1, 5, 7, 10 for the date of the change.

To avoid misleading split/skill call profile data, change the increments early in the day, preferably before agents begin staffing splits/skills and before much data has been gathered. Also change the increments at the beginning of your reporting week and, if possible, the beginning of the month. If the beginning of the week does not coincide with the beginning of the month, you will not be able to avoid some misleading call profile data for the month in which you make the changes.

- You can set each of the first nine service level increments to a different time length. Each increment represents a unit of wait time.
 - If you do not administer this window, zero (0) seconds is used for all service level increments (therefore, all calls appear in the first increment on the Split/Skill Call Profile report).
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To add, delete, or change a split/skill call profile, you need **read/write** permission for the ACD Administration subsystem and for all affected splits/skills. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
 - To view split/skill call profiles, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To use names for splits/skills, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for split(s) or skill(s).

Reports

CentreVu CMS counts the calls that are either answered or abandoned within each increment and then displays the totals on the Split/Skill Call Profile reports and graph reports. Therefore, what you enter here affects what you see on the Split/Skill Call Profile reports (real-time and historical).

Timetable

You can place the Split/Skill Call Profile Setup window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Split/Skill Call
Profile Setup
Window

Use the Split/Skill Call Profile Setup window (Figure 6-5) to specify an acceptable service level for calls to wait in queue before being answered and to define the service level increments for splits/skills.

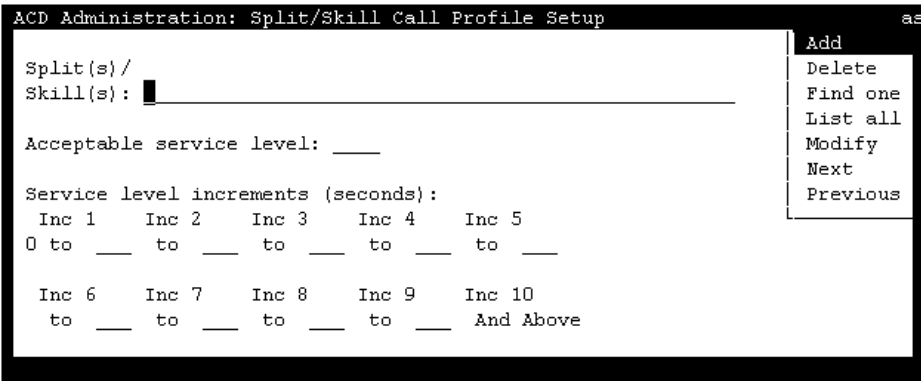


Figure 6-5: Split/Skill Call Profile Setup Window

Field Descriptions

Split(s)/Skill(s):

Enter the split or skill number(s) or name(s) (must be previously assigned in the Dictionary subsystem) you are searching for or modifying.

Acceptable service level: (Required entry)

Enter the number of seconds that it is acceptable for an ACD call to wait before connecting to an agent.

Service level increments (seconds): (Required entry)

Enter a progressively greater number of seconds in each “to” field. The seconds before and after each word “to” define an increment in seconds of wait time. For example, “0 to 5 to 10 to 25 ...” means 0-5, 6-10, and 11-25, etc.

Each of the nine increments can vary in length (for example, 0 to 15, 16 to 20, 21 to 26, 27 to 38, 39 to 43, etc.). Each increment represents a progressively longer wait time for the call and is used for both answered and abandoned calls.

Activate Agent Trace

Purpose

Use the Activate Agent Trace window to start or stop *CentreVu* CMS tracing of agent activities, including agent state changes.

Things to Know Before You Start

- You can activate traces for a maximum of 250 agents (if your *CentreVu* CMS server is a *Sun Microsystems*^{*} computer) or 100 agents (if your *CentreVu* CMS server is an *Intel*[†]-based computer). This limit applies to the number of agents administered to be traced by one *CentreVu* CMS server across all ACDs. It does not take into account whether or not the agents are logged in.
- The agent trace file rolls over (the oldest records are discarded as the newest records are written) when the number of records reaches your allocated number (up to a maximum of 500,000 records). You do not have to delete agent trace records. If you want to keep old agent traces, you should print them.
- To list agents and dates for which there are data in the current trace file, select the List Agents Traced menu option.
- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have Data Collection turned **on** for the ACD to start/stop agent traces. See "Data Collection" in Chapter 8, "System Setup" for more information.
- To set the amount of agent trace data to store, see "Data Collection" in Chapter 8, "System Setup" for more information.
- To start or stop an agent trace, you need **read/write** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
- To view agents being traced, you need **read** permission for the ACD Administration subsystem.

* Sun is a registered trademark of Sun Microsystems, Inc.

† Intel is a registered trademark of Intel Corporation.

Relationships to
Other
Subsystems

Historical Reports

You must start an agent trace before you can run an Agent Trace report. This report lists each agent activity and the time it occurred. The Agent Trace report can be helpful when evaluating how well individual agents are using their time. See the “Historical Reports” chapter in the *CentreVu™ Call Management System Release 3 Version 5 Real-Time and Historical Reports* (585-215-821) document for more information on the Agent Trace report.

Timetable

You can place the Activate Agent Trace window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Activate Agent
Trace Window

Use the Activate Agent Trace window (Figure 6-6) to start or stop *CentreVu* CMS tracing of agent activities.

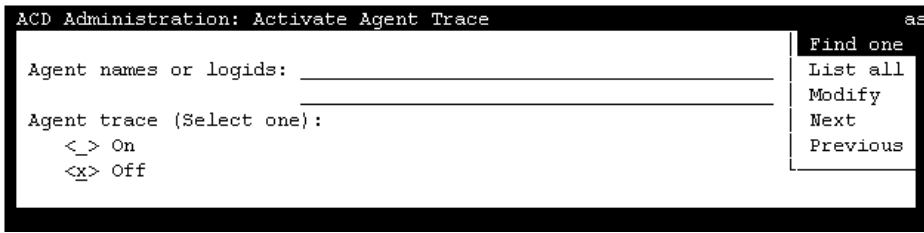


Figure 6-6: Activate Agent Trace Window

Field/Action List
Usage

Modify

Use the `Modify` action to start or stop an agent trace. Complete the `Agent names or logids` field to specify the agents for whom a trace will be started or stopped.

List all

If you leave the `Agent` field blank, the list includes **all** agents in the ACD whose tracing status has been modified and their current tracing status.

Field Descriptions

Agent names or logids:

Enter agent login ID(s) or name(s) (must be previously assigned in the Dictionary subsystem).

Agent trace (Select one): (Required entry)

Enter an **x** next to **On** or **Off** to start/stop a trace. **Off** is the default.

Note

Turning an agent trace off does **not** delete the records for that agent. Agent trace records are overwritten automatically when the trace file has filled up.

List Agents Traced

Purpose

Use the List Agents Traced window to list the agents and dates for which agent trace data are available for the current ACD.

Things to Know Before You Start

- You can list all the agents for which data are available for given dates, all the dates for which data are available for given agents, or all the dates and all the agents for which data are available.
 - See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- You must have turned **on** agent trace for some agents at some time in the past. See the "Activate Agent Trace" section for more information. Also, at some time in the past, those agents for whom traces were activated must have logged in to produce agent trace records.
 - To view a list of agents traced, you need **read** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Timetable

You can place the List Agents Traced window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

List Agents Traced Window

Use the List Agents Traced window (Figure 6-7) to view a list of agents and dates for which agent trace data are available.

ACD Admin: List Agents Traced as

Agent(s): _____

Dates: _____

Successful

- Find one
- List all
- Next
- Previous

ACD Admin: List Agents Traced: List All as

Printed: 10/16/96 7:21PM

<u>Date</u>	<u>Agent Traced</u>	<u>Login ID</u>
10/16/96	5001	5001
10/16/96	5002	5002
10/16/96	5003	5003
10/16/96	5004	5004
10/16/96	5005	5005

5 matches found; permitted ones displayed

Figure 6-7: List Agents Traced Window

Field/Action List Usage

List all

This action brings up a secondary window listing the dates and agents for which agent trace data are available. This list is displayed by date.

Field Descriptions

Agent(s):

Enter a list of agent login IDs or names (must have been previously assigned in the Dictionary subsystem).

Note

If you leave this field blank, all agents for whom agent trace data are available are displayed.

Dates:

Enter a list or range of dates.

Note

If you leave this field blank, all dates for which agent trace data are available are displayed.

AUX Agent Configuration (*DEFINITY* ECS with EAS)

Note This menu item appears only when the EAS feature has been purchased and enabled for the *DEFINITY* ECS.

Purpose

Use the AUX Agent Report Input window to run a report showing the AUX reason codes for agent(s) in a skill that you specify. This report is helpful for viewing which agents are in the AUX state and listing their reasons for being in AUX .

Things to Know Before You Start

- You cannot create a custom report from the AUX Agent report.
 - See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To run an AUX Agent configuration report, you need **read** permission for the ACD Administration subsystem and for all affected skills. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Dictionary

To use names for skills, the name must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for skills.

Timetable

You can place the AUX Agent Configuration Input window and report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

AUX Agent Report Input Window

Use the AUX Agent Report Input window (Figure 6-8) to run the AUX Agent Configuration report.

ACD Admin: Conf Report: AUX Agent Report Input Bull163V5pe

Skill:

AUX reason code(s):

Agent(s):

Report destination (Select one):

<x> Terminal

<_> Printer, Printer name:

<_> File, File name:

Run

Figure 6-8: AUX Agent Report Input Window

Field/Action List Usage

Run

Select **Run** to generate a report.

Field Descriptions

Skill:

Enter a skill number or name (must be previously assigned in the Dictionary subsystem). Valid ranges of skill numbers are 1-600.

AUX reason code(s):

You may enter the number or name (must be previously assigned in the Dictionary subsystem) of one or more reason codes that you want to see listed on the AUX Agent Report, or you can leave this field blank to see all AUX reason codes on this report.

Agent(s):

You may enter the login ID or name (must be previously assigned in the Dictionary subsystem) of one or more agents for whom you want to view current reason codes for the AUX state, or leave this field blank for all agents in the specified skill (or with the specified code, or both).

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX*^{*} system (/usr/<your login ID>) or *Solaris*[†] system (/export/home/<your login ID>) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

AUX Agent Configuration Report

The AUX Agent Configuration report (Figure 6-9) lists the selected AUX reason codes in numerical order, each skill's assigned name, and the agent names and login IDs that are in the AUX state for those reasons. If the skill does not have a name assigned, the **Skill:** field displays the skill number.

```
ACD Admin: Conf Report: AUX Agent Report      BullG3V5pe
                                     AUX Agent Configuration Report
Skill: Sk401                                Printed: 10/10/96  1:00 PM

Agent      Login ID  AUX reason
Agent 54002      54002   lunch4 r4eason code4
Agent 54001      54001   lunch4 r4eason code4
Agent 54008      54008   lunch4 r4eason code4

Successful
```

Figure 6-9: AUX Agent Configuration Report

* UNIX is a registered trademark of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

List Agent Skills Configuration

Note

This menu item appears only when the EAS feature has been purchased and enabled for the *DEFINITY* ECS.

Purpose

Use the List Agent Skills Report Input window to run a report showing a list of logged-in agent(s) that you specify with their associated skill(s) and skill level(s). This report is helpful for verifying agents' skill and skill level assignments. However, use the Change Agent Skills or Multi-Agent Skill Change windows to change agent skill and skill level assignments.

Things to Know Before You Start

- You cannot create a custom report from the List Agent Skills report.
- See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To run a List Agent Skills configuration report, you need **read** permission for the ACD Administration subsystem and for all affected skills. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.

Relationships to Other Subsystems

Dictionary

To use names for agent(s) or skills, the name(s) must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for agent(s) and skills.

Timetable

You can place the List Agent Skills Configuration Input window and report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

List Agent Skills
Input Window

Use the List Agent Skills Input window (Figure 6-10) to run the List Agent Skills Configuration report.

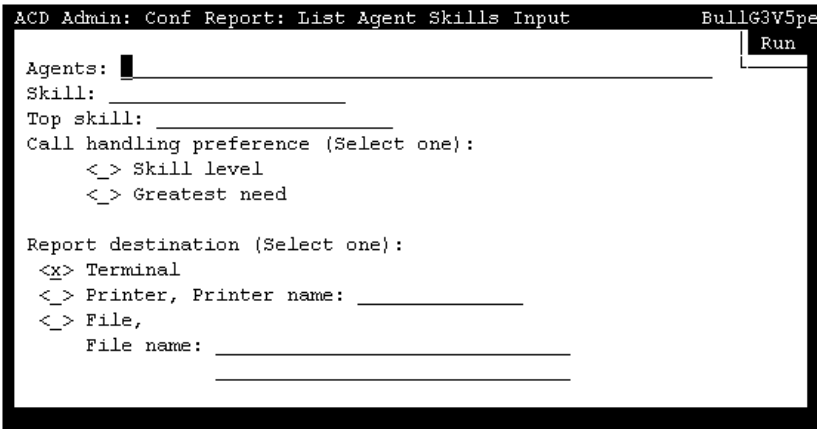


Figure 6-10: List Agent Skills Input Window

Field/Action List
Usage

Run

Select **Run** to generate a report.

Field Descriptions

Agent (s) :

You may enter the login ID or name (previously assigned in the Dictionary subsystem) of one or more agents for whom you want to view current skill(s) and skill level(s), or leave this field blank for all agents in the specified skill (or in the specified skill and with the specified skill level).

Skill:

Enter a skill number or name (previously assigned in the Dictionary subsystem) to show agents who have been assigned this skill. Valid ranges of skill numbers are 1-600.

Top skill:

You may also optionally enter the top skill number or name (assigned in the Dictionary) to show agents with this skill as their top skill. If you leave this field blank, the report lists agents with any specified **Skill** as their top skill.

Call handling preference (Select one):

You may optionally specify whether to list agents based on their assigned call-handling preference of **Skill level** or **Greatest need**.

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system/*Solaris* system (/export/home/<your login ID>) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

List Agent Skills Configuration Report

The List Agent Skills Configuration report (Figure 6-11) lists the selected agents with their login IDs, their Top and Direct Agent skills, their call handling preference (Greatest NEED or Skill LVL), and all their assigned skills and associated skill levels. The concept of “top skill” is useful only for agents whose call handling preference is based on skill level.

List Agent Skills Configuration Report										
Agent	Login	Top	Dir	Agt	Pref	Skills/Levels				
Agent 54001	54001	428	402	LVL		428/1	401/2	403/2	53/2	408/2 4
						406/6	407/7	409/9	410/10	411/11 4
Agent 54002	54002	402	402	LVL		402/1	401/1	403/2	404/3	405/5 4
						411/11	412/12	413/13	414/14	415/15 4
Agent 54006	54006	404	401	LVL		404/1	401/2	403/2	405/5	406/6 4
						412/12	413/13	414/14	415/15	420/13 4
Agent 54008	54008	401	401	LVL		401/2	403/2	404/3	405/5	406/6 4
						412/12	413/13	414/14	415/15	416/8 4

Successful 14x110 >

Figure 6-11: List Agent Skills Configuration Report

Trunk Group Members Configuration

Purpose

Use the Trunk Group Members Configuration Input window to run a report showing trunk group members and their equipment locations for a particular trunk group. This report helps you quickly find a trunk's location.

Things to Know Before You Start

- You cannot create a custom report from the Trunk Group Configuration report.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- You need **read** permission for the ACD Administration subsystem and for all affected trunk groups. See "Feature Access" and "Trunk Group Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Dictionary

To use names for trunk groups, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for trunk groups.

Timetable

You can schedule the Trunk Group Members Configuration Input window and report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Trunk Group Members Input Window

Use the Configuration Reports: Trunk Group Members Input window (Figure 6-12) to run the Trunk Group Configuration report.

Figure 6-12: Trunk Group Members Configuration Input Window

Field/Action List Usage

Run

Select **Run** to generate a report.

Field Descriptions

Trunk Groups:

Enter the trunk group number(s) or name(s) (must be previously assigned in the Dictionary subsystem).

- The report displays the trunk group number/name and trunk number within the trunk group.
- See on-line help for the valid numeric ranges for your particular switch.

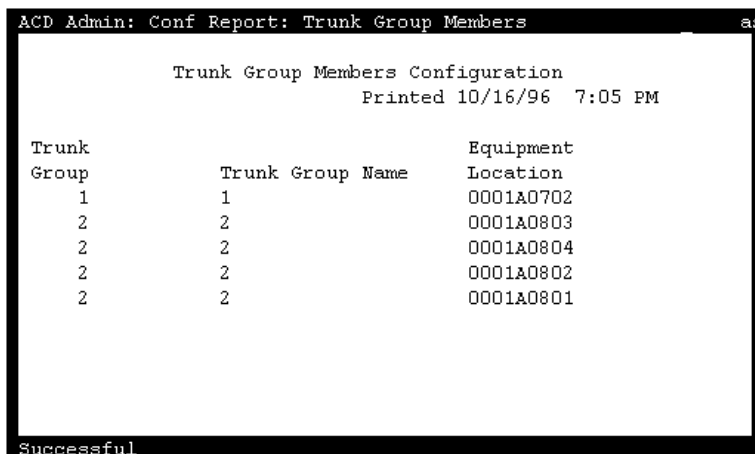
Report destination (Select one):

Enter an **x** next to **Terminal**, **Printer**, or **File**.

- **Terminal** is the default destination.
- If you selected **Printer** and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected **File**, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (*/usr/<your login ID>*) or *Solaris* system (*/export/home/<your login ID>*) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Trunk Group Members Configuration Report

The Trunk Group Members Configuration report (Figure 6-13) lists the selected trunk groups in numerical order, each trunk group's assigned name, and the equipment location of each trunk in the trunk group. If the trunk group does not have a name assigned, the Trunk Group Name field displays the trunk group number. If the trunk group does not have any trunks assigned to it, then the Equipment Location field is blank.



Trunk Group	Trunk Group Name	Equipment Location
1	1	0001A0702
2	2	0001A0803
2	2	0001A0804
2	2	0001A0802
2	2	0001A0801

Successful

Figure 6-13: Trunk Group Members Configuration Report

Vector Configuration with Skills

Purpose

Use the Vector Configuration with Skills input window to run the Vector Configuration with Skills report, which lists the trunk groups and VDNs that are associated with a given set of vectors and the skill preferences assigned to the VDNs.

Things to Know Before You Start

- A vector number may appear in the report even if it does not currently have an associated trunk group. A vector number may also appear even if the vector does not yet contain any steps.
 - You cannot create a custom report from a Vector Configuration report.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

To run a Vector Configuration with Skills report, you must have **read** permission for the ACD Administration subsystem and the vector(s) you want listed in the report. (See "Feature Access" and "Vector Access" in Chapter 7, "User Permissions" for more information.) However, the trunk groups and VDNs carrying calls to the vector(s) are listed even if you do not have read permission for those VDNs and trunk groups.

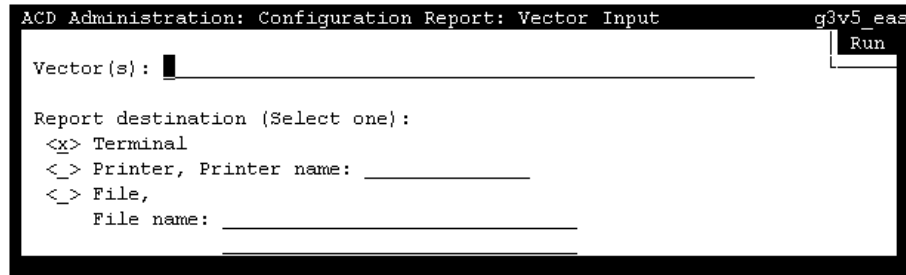
Relationships to Other Subsystems

Timetable

You can schedule the Vector Configuration with Skills report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Vector Input Window (EAS)

Use this window (Figure 6-14) to run the Vector Configuration with Skills report.



```
ACD Administration: Configuration Report: Vector Input      g3v5_eas
Run
Vector(s): _____
Report destination (Select one):
<x> Terminal
<_> Printer, Printer name: _____
<_> File,
    File name: _____
```

Figure 6-14: Vector Configuration with Skills Input Window

Field Descriptions

Vectors:

Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of vectors you want to appear in the report. You can enter a list or range of vectors.

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (`/usr/<your login ID>`) or *Solaris* system (`/export/home/<your login ID>`) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Vector Configuration with Skills Report

The Vector Configuration with Skills report (Figure 6-15) lists the trunk groups, VDNs, and VDN skill preferences associated with the specified vectors.

ACD Administration: Configuration Report: Vector sim...e

Vector Configuration with Skills
Printed 10/20/96 5:29 PM

Trunk Group		VDN		Vector		VDN Skills		
No.	Name	No.	Name	No.	Name	1st Name	2nd Name	3rd Name
---	---	---	---	---	---	---	---	---
18	18	1005	1005	1	1	1	2	3
19	19	1006	1006	2	2	2	3	4
20	20	1007	1007	3	3	3	4	5
21	21	1008	1008	4	4	4	5	1
22	22	1009	1009	5	5	5	1	2

Successful

Figure 6-15: Vector Configuration with Skills Report

Call Work Codes

Purpose

Use the Call Work Codes window to add, delete, or view the Call Work Codes for which *CentreVu* CMS collects data. A Call Work Code is a number you assign to a particular call type or activity your call center wants to track, for example, a sale item, complaints, repeat orders, promotional ads, or sales made using a credit card. Agents use the dial pad on their voice terminal to enter Call Work Codes. You can then see this data on the Call Work Code and Call Record historical reports.

Things to Know Before You Start

- Call Work Codes must be positive integers with 1 to 16 digits. Codes comprising 1 to 9 digits may be assigned names in the Dictionary subsystem. It is recommended that you specify a fixed number of digits for **all** Call Work Codes. A fixed number of digits makes it easier to add, delete, and search for Call Work Codes.
- Call Work Code 0 is always assigned and is used to collect information on unadministered Call Work Codes. You cannot delete Call Work Code 0. If an agent enters an unadministered Call Work Code, it shows up as code 0 on the Call Work Code report. If the Invalid Call Work Code exception is assigned, the Agent Exceptions historical report shows agents who entered invalid (unassigned) Call Work Codes.
- Call Work Codes are assigned to a specific ACD and as many as 1999 Call Work Codes can be assigned per *CentreVu* CMS (for all ACDs). If you try to assign more than 1999 codes, the add operation will fail.
- To use the standard Call Work Code reports, you must administer the codes using the Call Work Codes window. To use call records to collect call work code data, you do **not** have to use this window to administer the codes.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Disk space must be allocated for Call Work Code data storage. See "Data Storage Allocation" in Chapter 8, "System Setup" for more information.
 - You must also identify and specify where you want to store Call Work Code data. See "Free Space Allocation" in Chapter 8, "System Setup" for more information.
 - To add or delete Call Work Codes, you need **read/write** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
 - To view Call Work Codes, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Reports

Daily, weekly, and monthly standard historical reports are available for Call Work Codes. Call Work Codes also appear on the standard historical Call Record report. See the Call Work Code Report and Call Record sections of the Historical Reports chapter in the *CentreVu™ CMS R3V5 Real-Time and Historical Reports* document for more information on these reports.

Dictionary

For a name to appear in the report instead of the numerical code, the name must first be entered in the Dictionary subsystem. Only Call Work Codes comprising 1 to 9 digits can be assigned names. See "Call Work Codes" in Chapter 4, "Dictionary" for more information on administering names for Call Work Codes.

Exceptions

You can administer an exception for agents who enter invalid (unadministered) Call Work Codes. See Chapter 5, "Exceptions" for more information on these exceptions.

Timetable

You can place the Call Work Codes window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Call Work Codes Window

Use the Call Work Codes window (Figure 6-16) to add, delete, or view the Call Work Codes for which *CentreVu* CMS collects data.

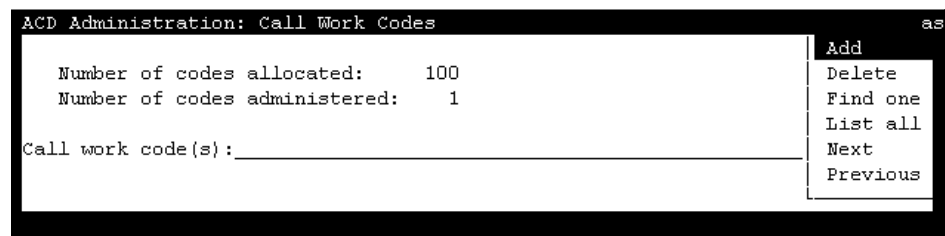


Figure 6-16: Call Work Codes Window

Field Descriptions

Number of codes allocated: (Display only)
This is the total number of Call Work Codes that will be saved in the *CentreVu* CMS database. (This number comes from the "Data Storage Allocation" window in the "System Setup" subsystem.)

Number of codes administered: (Display only)
This is the total number of Call Work Codes currently in use (administered using this window).

Call work code(s):
Enter the Call Work Code(s) you want agents to use.

Note

It is recommended that you specify a fixed number of digits for **all** Call Work Codes. A fixed number of digits makes it easier to add, delete, and search for Call Work Codes.

VDN Assignments

Purpose

Use the VDN Assignments window (Figure 6-17) to change VDN-to-vector assignments.

VDNs, which are initially assigned to vectors on the switch, provide a software link to vectors. This link is necessary for ACD calls to enter vector processing.

Things to Know Before You Start

- You can assign multiple VDNs to a single vector. However, you **cannot** assign a VDN to more than one vector.
 - You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current SLK**.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
 - When scheduling VDN moves, you need to group all VDN moves together on one timetable, or schedule them far enough apart so that one move completes before the next one starts.
-

Prerequisite System Administration

- To change VDN assignments, you must have **read/write** permission for the ACD Administration subsystem and for the vector to which you are assigning the VDNs. See "Feature Access" and "Vector Access" in Chapter 7, "User Permissions" for more information.
 - To view VDN assignments, you must have **read** permission for the ACD Administration subsystem and for the vector and VDN(s) you want to view.
-

Relationships to Other Subsystems

Timetable

You can schedule VDN assignment changes on a timetable. This capability can be particularly useful if you want to make assignments during off-hours. See Chapter 3, "Timetable and Shortcut".

VDN
Assignments
Window

Use the VDN Assignments window (Figure 6-17) to view or change the VDN-to-vector assignments.

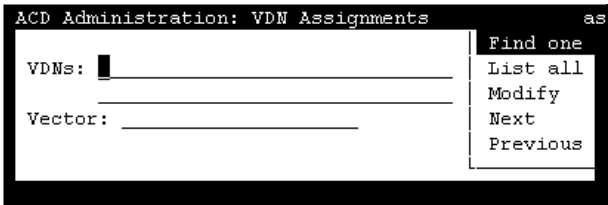


Figure 6-17: VDN Assignments Window

Field/Action List
Usage

Modify
To change VDN assignments, complete the VDNs and Vector fields and select Modify.

List all
Selecting List all with blank input fields displays a list of VDNs and the vectors to which they are assigned. If a VDN is not assigned to a vector, the VDN is shown with a blank Vector in the List All window.

Field Descriptions

VDNs :
Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of the VDN(s) you want to reassign.
To determine to what vectors all measured VDNs have been assigned, leave the input fields blank and select List all.

Vector :
Enter the number or name (must be previously assigned in the Dictionary subsystem) of the vector to which you want to assign the VDN(s). To determine what vectors the VDNs have been assigned to, leave the input fields blank and select List all.

Change VDN Skill Preferences

Purpose

Use the Change VDN Skill Preferences window to change the first, second, and third VDN skill preferences for a list of VDNs. You can also list the currently assigned skill preferences for VDNs, or list all the VDNs that currently have the specified skill preference assigned.

Things to Know Before You Start

- To find out which VDNs have a specified skill assigned as their first, second, or third skill preferences, do a `List all` three times, once for each skill preference.
 - When the VDN skill preferences are changed on the *DEFINITY* ECS or on a Generic 3 switch, the change takes effect immediately and can affect the processing of any call currently in progress in the VDN at the time of the change.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To change the skill preferences assigned to VDNs, you must have **read/write** permission for the ACD Administration subsystem and for the affected VDNs. See "Feature Access" and "VDN Access" in Chapter 7, "User Permissions" for more information.
 - To view current skill preference assignments, you must have **read** permission for the ACD Administration subsystem and for the affected VDNs.
-

Relationships to Other Subsystems

Timetable

You can schedule VDN skill preference changes on a timetable. This capability can be particularly useful if you want to make assignments during off-hours. See Chapter 3, "Timetable and Shortcut".

Change VDN Skill Preferences Window

Use the Change VDN Skill Preferences window (Figure 6-18) to change the skill preferences for a list of VDNs.

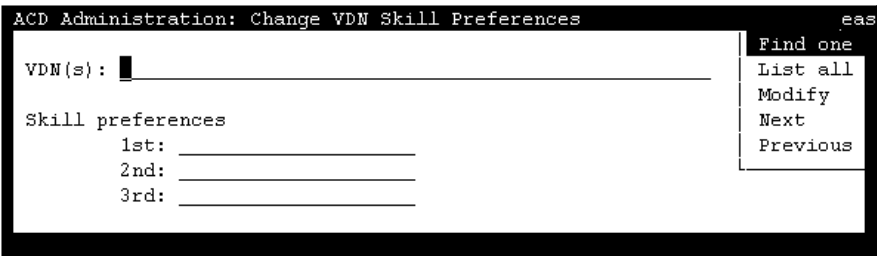


Figure 6-18: Change VDN Skill Preferences Window

Field/Action List Usage

Modify
Selecting **Modify** changes switch administration which affects calls currently in vector processing and new calls on the *DEFINITY* ECS or Generic 3 switch.

Field Descriptions

VDNs:
Enter a list or range of VDNs whose skill preferences you want to view or change.

To determine what VDNs you can assign, select **List all** with all blanks in this field.

Skill preferences 1st, 2nd, 3rd:
Enter the skill preferences to be assigned to the list of VDNs you entered.

The skill preferences are assigned as the first, second, and third VDN skill preferences, respectively.

To list the skill preferences that are currently assigned to VDNs, select **List all** on the Vector Configuration with Skill Preferences input window. See the "Vector Configuration with Skills (Switches with EAS)" section of this chapter.

VDN Call Profile Setup

Purpose

Use the VDN Call Profile Setup window (Figure 6-19) to set up a VDN call profile and to define acceptable service levels (wait time) and service level increments for VDNs.

CentreVu CMS counts the number of calls that are answered, connected to a non-ACD destination, and abandoned within each increment and displays them on the VDN Call Profile reports.

Note

CentreVu CMS stores zeros as default values for the profile increments. That is, *CentreVu* CMS does not collect or store meaningful VDN call profile report data until you administer the increments for a particular VDN. Instead, a call profile report for a VDN adds up all answered and connected calls, and displays the total, as well as the number of abandoned calls, in the first increment of the report.

Things to Know Before You Start

Caution

You should turn off data collection to change the parameters in Call Profile Setup. See "Data Collection" in Chapter 8, "System Setup" for more information.

If you change the service level increments while CMS is collecting data, any data that is collected for the interval in which you made the change will be distorted. *CentreVu* CMS deletes the VDN call profile data already collected for that interval and keeps only the VDN call profile data that was collected in that interval after the change. *CentreVu* CMS then tries to combine the VDN call profile data gathered both before and after the change into a single daily record of VDN call profile data. As a result, some data are placed in the wrong service level increments.

Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The increments shown on the report that includes the date on which the change was made will be the larger of the values for each increment before and after the change. For example, if you change from all "0s" to 1, 3, 5, 10, ..., the VDN Call Profile report shows 1, 3, 5, 10, ... If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report shows 1, 5, 7, 10 for the date of the change.

To avoid misleading VDN call profile data, change the increments early in the day, preferably before agents begin staffing splits/skills and before much data has been gathered. Also change the increments at the beginning of your reporting week and, if possible, the beginning of the month. If the beginning of the week does not coincide with the beginning of the month, you will not be able to avoid some misleading call profile data for the month in which you make the changes.

- You can set each of the first nine service level increments to a different time length. Each increment represents a unit of wait time.
- *CentreVu* CMS always tracks and records call information for each VDN the call reaches until the call is answered, connected to a non-ACD destination, abandoned, or routed to another VDN or off the switch.

Prerequisite System Administration

- To add, delete, or change a VDN call profile, you must have **read/write** permission for the ACD Administration subsystem and for the affected VDNs. See "Feature Access" and "VDN Access" in Chapter 7, "User Permissions" for more information.
- To view a VDN call profile, you must have **read** permission for the ACD Administration subsystem and for the affected VDNs.

Relationships to Other Subsystems

Reports

The service level increments you define for a VDN determine the increments that appear for that VDN on both the real-time and historical VDN Call Profile reports. The acceptable service level that you define for a VDN affects the percentage of calls answered within service level shown on that VDN's Call Profile report.

Timetable

You can schedule VDN Call Profile changes on a timetable.

VDN Call Profile Setup Window

Use the VDN Call Profile Setup window (Figure 6-19) to define the acceptable service level and service level increments for VDNs.

ACD Administration: VDN Call Profile Setup

VDNs:

Acceptable service level: _____

Service level increments (seconds):

Inc 1	Inc 2	Inc 3	Inc 4	Inc 5
0 to _____	to _____	to _____	to _____	to _____
Inc 6	Inc 7	Inc 8	Inc 9	Inc 10
to _____	to _____	to _____	to _____	And Above

Context Menu:

- Add
- Delete
- Find one
- List all
- Modify
- Next
- Previous

Figure 6-19: VDN Call Profile Setup Window

Field/Action List Usage

Add

To add a VDN call profile, complete all fields and select **Add**.

To copy an existing VDN call profile to a VDN that does not yet have a profile, use **Find one** to display the profile you want to copy; then change the VDN listed in the VDNs field to the desired VDN(s), and select **Add**.

Delete

To delete a VDN call profile, complete only the VDNs field and select **Delete**.

Modify

To modify a VDN call profile, use **Find one** to display a profile; then change the desired fields, and select **Modify**.

Field Descriptions

VDNs :

Enter the VDN number(s) or name(s) (must be previously assigned in the Dictionary subsystem) whose profile you want to add, delete, change, or copy.

To determine what VDNs are assigned to vectors, clear the input fields on the VDN Assignments window and select **List all** from the action list. See "VDN Assignments" in this chapter.

Acceptable service level:

Enter a number of seconds to define the maximum acceptable time for incoming calls to the VDN to wait before connecting to an agent. Calls answered within the service level, abandoned within the service level, and outflowed within the service level are recorded in the CMS database (ACCEPTABLE, SLVLABNS, and SLVLOUTFLOWS, respectively). These items can then be used to calculate call percentages within service level.

The number of seconds can be from 1 to 3600, the maximum number of seconds in an hour-long intrahour interval.

Inc 1

Enter a number of seconds from 1 to 3600 to specify the lowest service level increment.

- The number you enter is the top of the range of seconds.
- *CentreVu* CMS counts calls that are either answered, connected to non-ACD destinations, or abandoned within this range and it displays the totals on the VDN Call Profile report.

Inc 2 through Inc 9

Enter a number of seconds to define the second through the ninth service level increments.

- The number of seconds you enter for each increment must be at least 1 second greater than the number of seconds of the previous increment. For example, if the number of seconds you entered for previous increment is 25, you must enter at least 26 seconds in the current increment.
- The number you enter forms a range with the number you entered for the previous increment. Though the number you enter is included in the range (and is the top of the range), the number from the previous increment is not included in the range. For example, "0 to 5 to 10 to 25 ..." means 0-5, 6-10, and 11-25, etc. *CentreVu* CMS counts calls that are either answered, connected to a non-ACD destination, or abandoned within each range and it displays the totals on the VDN Call Profile report.

Vector Contents

Note

The Vector Contents window is available **only** if the current ACD is a real ACD (that is, it is not a pseudo-ACD).

Purpose

Use the Vector Contents window to add a new vector or to change an existing vector. A vector is an ordered set of call-processing commands called vector steps.

Things to Know Before You Start

- For the *DEFINITY* ECS and for Generic 3 Version 2 or later switches, a single vector can have as many as 32 steps.
- You cannot exit the Vector Contents window using the **Exit** SLK until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** SLK.
- Each step in a vector is a dynamic field in which you can enter one of a variety of commands and conditions. If you enter the first unique character(s) of a command, *CentreVu* CMS automatically displays command words and additional input fields that you must complete.
- When you have the Expert Agent Selection (EAS) feature, the vector commands refer to *skill* instead of *split*.
- Use the following keys in the Vector Contents window.

↓ or **Tab**

Move the cursor to the next field.

↑ or **Shift Tab**

Move the cursor to the previous field.

→

Move the cursor to the right within a field.

←

Move the cursor to the left within a field.

Back Space

Delete characters in a field.

Ctrl X

Delete characters from the cursor to the end of the field.

Ctrl Y

Delete all characters in the field.

Ctrl Z

Delete all steps in the vector.

- If you leave a blank step in a vector, *CentreVu* CMS automatically replaces the blank with a “goto step” command when you select **Modify**. The “goto step” command sends vector processing to the next step in the vector.
- You may enter vector commands that reference skills to which you have neither read nor write permission.
- You **cannot** place the Vector Contents window on a timetable.
- You can link one vector with another vector with a “goto vector” command. Linking two vectors creates a virtual vector of more than 32 steps (or 15 steps, for Generic 3 Version 1 and earlier switches). Yet, as a call moves from one vector to another, the original VDN continues to carry the call and permits accurate reports on specific-purpose call traffic.
- Your vectors may contain Call Vectoring commands, Call Prompting commands, or both, depending on which features have been purchased and enabled on the switch. See Table 6-1.
- The maximum queue length assigned to a skill could affect the “calls queued to skill” condition for “goto” and “check backup skill” commands. For example, if the maximum queue length administered on the switch for a skill is 20, but your calls queued condition is greater than 20, then the condition always fails.

Prerequisite System Administration

- To change a vector's contents, you must have **read/write** permission for the ACD Administration subsystem and for the vector. See “Feature Access” and “Vector Access” in Chapter 7, “User Permissions” for more information.
- To view a vector, you must have **read** permission for the ACD Administration subsystem and for the vector.
- To process calls, at least one VDN must be assigned to a vector.
- A skill referenced in a “queue to main skill” or “check backup skill” vector command must be specified as vector-controlled on the skill's Hunt Group Form. See the *DEFINITY® Enterprise Communications Server Call Vectoring/Expert Agent Selection (EAS) Guide*, 555-230-520.
- For Generic 3 switches with the Call Prompting feature, at least one TN744 circuit pack (which has eight touch-tone receivers) must be connected to the switch.

Vector Contents Window

Use the Vector Contents window (Figure 6-20) to view a vector's contents and to add a new vector or change the steps in an existing vector.

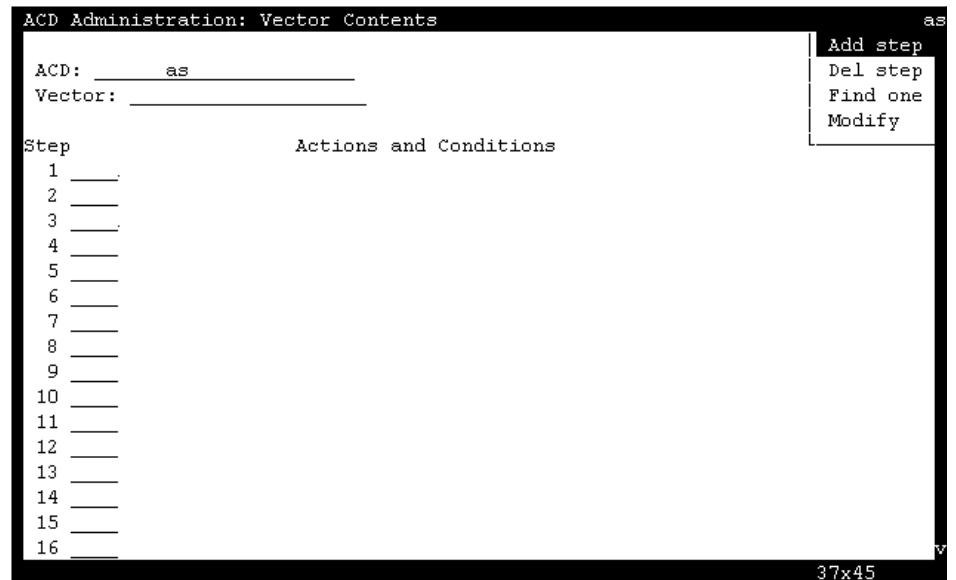


Figure 6-20: Vector Contents Window (*DEFINITY* ECS and Generic 3 Switches)

Field/Action List Usage

Modify

To **add** a vector, **change** the contents of a vector, or **copy** the contents of a vector, you must use **Modify**. See the appropriate procedure ("Adding a New Vector", "Modifying a Vector", or "Copying a Vector") later in this section.

Add step

To **insert** steps between existing steps in a vector, you can place the cursor on a step and select **Add step**. *CentreVu* CMS creates a blank step above the step on which you placed the cursor. You can then enter the command and conditions you want for the new step. However, you must still select **Modify** (see "Modifying a Vector") to save the vector with the steps you inserted.

Del step

To **delete** steps in a vector, you can place the cursor on a step and select **Del step**. *CentreVu* CMS deletes the command for that step and moves

any subsequent commands up one step. However, you must still select **Modify** (see "Modifying a Vector") to save the vector without the steps you deleted.

Find one

To **view** a vector's contents, complete the **ACD** and **Vector** fields and select **Find one**.



Your vector does not have to be complete or logical in order to save it. However, if an active VDN is assigned to an incomplete or illogical vector, calls will receive inappropriate treatment.

Field Descriptions

ACD:

Enter the number or name (must have been previously assigned in the Dictionary subsystem) of the ACD for which you want to define a vector.

The default ACD number or name in this field is the current ACD.

Vector:

Enter the number or name (must have been previously assigned in the Dictionary subsystem) of the vector you want to find, add or change.

Steps 1 through 32

To enter a vector command, move the cursor to the appropriate vector step and type the first unique letter(s) of the command (for example, **g** for the **goto** command). *CentreVu* CMS automatically displays the rest of the command.

Likewise, if the allowed values for an input field are words (for example, **mon, tue**), you have to enter only the first unique letter(s) of the word and *CentreVu* CMS automatically displays the rest of the word. This automatic display also applies to the **if** conditions for the **goto** and **check backup** commands.



Automatic display does not work for an input field if **none** is an allowed value (for example, the **disconnect** or the **collect digits** command), or if the allowed values include both numeric and alpha characters.

The input field for a command word contains only the first four letters of the word. These letters are usually underlined. To change a command word:

- Enter the first unique letter(s) of the word.

OR

- Press **Ctrl Y** to delete the four letters in the field, and then type the first unique letter(s) of a different command word.

CentreVu CMS automatically changes the remaining text and any other input fields in the command to match the word you entered. However, you must move the cursor to the remaining fields of the command and also enter the appropriate values.

You may need to press **Tab** or the spacebar in almost all fields. For the *DEFINITY* ECS and the Generic 3 Version 2 or later switches, if you are on the last field in the window, tabbing out of the field moves you to the next “page” of vector steps (17 through 32).

Table 6-1 lists the available vector commands for the *DEFINITY* ECS and the Generic 3 and later switches with the EAS feature, and the allowable values for each input field. For a more detailed description of each command, see Appendix B, “Call Vectoring and Related ECS/Generic 3 Features”.

Table 6-1: Vector Commands—DEFINITY ECS/Generic 3 with EAS

<u>adjunct routing link</u> _____ (extension of adjunct port)
<u>announcement</u> ^a _____ (1- to 5-digit extension)
<u>busy</u>
<u>collect</u> ^a _____ digits after announcement _____ (1-16 [all G3V4/ECS]) (Optional: 1- to 5-digit extension or none) (ced, cdpd [specific: ECS])
<u>disconnect after announcement</u> _____ (1- to 5-digit extension or none [default])
<u>messaging skill</u> ^a _____ for extension _____ (1-24 [specific: G3vs/s]) (1- to 5-digit extension, active, latest, none [default]) ^b (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])

a. This command is also available with Call Prompting.

b. Active means the called VDN as changed by VDN override. Latest means the VDN assigned to the vector in which the call is currently being processed.

Table 6-1: Vector Commands—*DEFINITY* ECS/Generic 3 with EAS (Contd)

<u>queue-to</u> main skill _____ pri ____ (1-24 [specific: G3vs/s]) (low, med, (1-99 [specific: G3i]) high, top) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])							
<u>route-to</u>	<u>digits</u> ^a	with cov _____ (y or n [default])					
<u>route-to</u>	<u>number</u>	_____ with cov _____ if _____ <u>digit</u> ^a _____ (1- to 16-digit number, (y or (<, >, <=, >=) (0-9) which may include ~p, n [default]) (< >, =) (0-9, #) ~s, ~w, ~W, ~m, *, or #)					
<u>unconditionally</u> ^b							
<u>stop</u> ^b							
<u>wait-time</u> ^b	_____ secs hearing _____ (0-998) ^c	_____ (music, ringback, silence, i-silent ^d)					
		_____ then _____ (1- to 5-digit extension) (continue, music, ringback, silence)					

a. The Call Prompting feature must be enabled.

b. This command is also available with Call Prompting.

c. Even numbers only.

d. i-silent restricts an Integrated Services Digital Network (ISDN) Progress message from being returned to the network. It is used with adjunct routing applications that work with the AT&T ADR (Alternate Destination Redirection) network service or with Look Ahead Interflow applications on the *DEFINITY* ECS/G3V4 or later switches only.

Table 6-1: Vector Commands—DEFINITY ECS/Generic 3 with EAS (Contd)

G3V2 or later only						
<u>check-backup skill</u>	_____	pri ____	if	<u>rolling-asa</u>	<	_____
	(1-24 [specific: G3vs/s]) (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])	(low, med, high, top)				(2-998) ^a
				<u>available-agents</u>	>	_____
						(0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
				<u>calls-queued</u>	<	_____
						(1-200 [G3vs/s/i]) (1-999 [G3r])
				<u>expected-wait</u>	<	_____
						(1-9999)
				<u>oldest-call-wait</u>	<	_____
						(2-998) ^a
				<u>staffed-agents</u>	>	_____
						(0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
				<u>unconditionally</u>		
<u>converse-on skill</u>	_____	pri ____	passing	<u>DATA 1</u> ^b	and	<u>DATA 2</u>
	(1-24 [specific: G3vs/s]) (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])	(low, med, high, top)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits,” ^c “qpos,” “wait,” ^d “#,” or “none”)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits,” ^c “qpos,” “wait,” ^d “#,” or “none”)

a. Even numbers only.

b. If DATA 1 is administered as “none,” DATA 2 must also be administered as “none.”

c. The Call Prompting feature must be enabled.

d. The Vectoring (G3V4 Enhanced) option must be enabled.

Table 6-1: Vector Commands—*DEFINITY* ECS/Generic 3 with EAS (Contd)

<u>goto step</u> ^a	<u>if</u> (1-32) or (1-15 [G3V1])	<u>ani</u> ^b	<u>(<, >, <=, >=)</u> ^c (< >, =)	<u>(1-16 characters: 0-9)</u> (1-16 characters: 0-9, ?, +, none) ^d
	<u>ani</u> ^b	<u>(in, not-in)</u>	<u>table</u>	<u>(1-5 [G3vs/s])</u> (1-10 [G3i]) (1-100 [G3r])
<u>rolling-asa for</u> ^e	<u>vdn</u>	<u>(VDN, active, latest)</u> ^f	<u>(<, <=)</u> (>, >=, < >, =)	<u>(2-998)^g</u> (0-998) ^g
<u>rolling-asa for</u> ^e	<u>skill</u>	<u>(1-24 [specific: G3vs/s])</u> (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])	<u>(<, <=)</u> (>, >=, < >, =)	<u>(2-998)^g</u> (0-998) ^g
<u>available-agents in skill</u>	<u>(1-24 [specific: G3vs/s])</u> (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])	<u>(<, <=)</u> (>, >=, < >, =)	<u>(1-150 [G3vs/s], 1-200 [G3i], 1-999 [G3r])</u> (0-149 [G3vs/s], 0-199 [G3i], 0-998 [G3r])	
<u>calls-queued in skill</u>	<u>(1-24 [specific: G3vs/s])</u> (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])	<u>pri</u> (low, med, high, top)	<u>(<, <=)</u> (>, >=, < >, =)	<u>(1-200 [G3vs/s/i], 1-999 [G3r])</u> (0-199 [G3vs/s/i], 0-998 [G3r])
<u>counted-calls to vdn</u> ^e	<u>(VDN, active, latest)</u> ^f	<u>(<, <=)</u> (>, >=, < >, =)	<u>(1-999)</u> (0-999)	
<u>digits</u> ^h	<u>(in, not-in)</u>	<u>table</u>	<u>(1-5 [G3vs/s])</u> (1-10 [G3i]) (1-100 [G3r])	
<u>digits</u> ^h	<u>(<, >, <=, >=)</u> (< >, =)	<u>(1-16 characters: 0-9)</u> (1-16 characters: 0-9, #, ?, +, none) ^d		

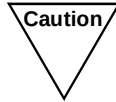
- The “goto vector” command is identical to the “goto step” command, except the word “step” is replaced by the word “vector.” The valid values for vector are: 1-48 [G3vs/s], 1-256 [G3i], 1-512 [G3r].
- The Vectoring (ANI/II-Digits Routing) and Vectoring (G3V4 Enhanced) options must be enabled.
- The <=, >=, < >, and = comparators are new for G3V4. <= means less than or equal to, >= means greater than or equal to, < > means not equal to, and = means equal to.
- A ? can be entered in any character position and matches any character in that single character position. A + must be entered as either the first or last character of the string and matches any or no characters. The + uses two of the 16 available characters.
- The Vectoring (G3V4 Advanced Routing) and Vectoring (G3V4 Enhanced) options must be enabled.
- Active means the called VDN as changed by VDN override. Latest means the VDN assigned to the vector in which the call is currently being processed.
- Even numbers only.
- The Call Prompting feature must be enabled.

Table 6-1: Vector Commands—DEFINITY ECS/Generic 3 with EAS (Contd)

<u>goto step</u> ^a	<u>if</u> (1-32) or (1-15 [G3V1])	<u>expected-wait for</u> ^b	<u>skill</u> (1-24 [specific: G3vs/s]) (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1-600 [specific: ECS]) (1st, 2nd, 3rd [VDN])	<u>pri</u> <u>low, med,</u> <u>high, top</u>	<u><, <=</u> ^c (>, >=, < >, =)	<u>(1-9999)</u> (0-9999)
		<u>expected-wait for</u> ^b	<u>call</u> (in, not-in)	<u><, <=</u> (>, >=, < >, =)	<u>(1-9999)</u> (0-9999)	
	<u>ii-digits</u> ^d		<u>table</u> (in, not-in)		<u>(1-5 [G3vs/s])</u> <u>(1-10 [G3i])</u> <u>(1-100 [G3r])</u>	
	<u>ii-digits</u> ^d		<u><, >, <=, >=</u> (< >, =)	<u>(00-99)</u> <u>[00-99, +, +?, ?+, ??, ?x (where x = 0-9), x?, none]</u> ^e		
	<u>oldest-call-wait in skill</u>		<u>(1-24 [specific: G3vs/s])</u> <u>(1-99 [specific: G3i])</u> <u>(1-255 [specific: G3r])</u> <u>(1-600 [specific: ECS])</u> <u>(1st, 2nd, 3rd [VDN])</u>	<u>pri</u> <u>low, med,</u> <u>high, top</u>	<u><, <=</u> (>, >=, < >, =)	<u>(2-998)</u> ^f (0-998) ^f
	<u>staffed-agents in skill</u>		<u>(1-24 [specific: G3vs/s])</u> <u>(1-99 [specific: G3i])</u> <u>(1-255 [specific: G3r])</u> <u>(1-600 [specific: ECS])</u> <u>(1st, 2nd, 3rd [VDN])</u>	<u><, <=</u> (>, >=, < >, =)	<u>(1-150 [G3vs/s], 1-200 [G3i], 1-999 [G3r])</u> <u>(0-149 [G3vs/s], 0-199 [G3i], 0-998 [G3r])</u>	
	<u>time-of-day is</u>		<u>(mon, tue,</u> <u>wed, thur, fri,</u> <u>sat, sun, all)</u>	<u>to</u> <u>(hh:mm in</u> <u>military time</u> <u>or am/pm)</u>	<u>(mon, tue,</u> <u>wed, thur, fri,</u> <u>sat, sun, all)</u>	<u>(hh:mm in</u> <u>military time</u> <u>or am/pm)</u>
	<u>unconditionally</u> ^g					

- The “goto vector” command is identical to the “goto step” command, except the word “step” is replaced by the word “vector.” The valid values for vector are: 1-48 [G3vs/s], 1-256 [G3i], 1-512 [G3r].
- The Vectoring (G3V4 Advanced Routing) and Vectoring (G3V4 Enhanced) options must be enabled.
- The <=, >=, < >, and = comparators are new for G3V4. <= means less than or equal to, >= means greater than or equal to, < > means not equal to, and = means equal to.
- The Vectoring (ANI/II-Digits Routing) and Vectoring (G3V4 Enhanced) options must be enabled.
- A ? matches any digit 0-9 in that single digit position. A + matches any or no characters.
- Even numbers only.
- This command is also available with Call Prompting.

Adding a New Vector



You should **always** test your vector by sending test calls to the vector. You can send test calls by dialing a test VDN that is assigned to the vector. A test VDN should not be currently in use for real calls nor referenced (by way of a “route to” command) in a vector that is currently in use. If you do not test your vectors, real incoming calls may receive inappropriate treatment.

1. Select Vector Contents from the ACD Administration submenu. → *The Vector Contents window appears with the current ACD name or number displayed in the ACD field.*
2. Enter the number or name of the vector you want to add in the Vector field. Do a Find one first to ensure you are not overwriting steps that already exist for the vector. → *The steps in the vector appear.*



Do not delete or change the name or number that appears in the ACD field.

3. For each vector step, enter the initial letter(s) of a command, and complete the remaining fields of the command. See Table 6-1 for *DEFINITY* ECS/Generic 3 Version 4 for the allowed values for each command.

4. Select **Modify** after adding your steps to save the vector on the switch.
- *A window displays asking you to verify that you want to make the change. After you select **y**, **Successful** appears on the status line to indicate that the vector has been added on the switch. If the switch does not accept the vector or a step in the vector, **Failed** appears on the status line, and an error message identifies the problem.*

Copying a Vector

1. Select Vector Contents from the ACD Administration submenu. → *The Vector Contents window appears with the current ACD name or number displayed in the ACD field.*
2. Enter the number or name of the vector you want to copy from in the Vector field, and then select Find one. → *The steps in the vector appear.*

3. Enter the copy-to vector name or number in the Vector field. You can also change the ACD name or number.

If you change the ACD name or number and some vector steps are not valid for the new (changed) switch type, a message displays indicating which steps are in error. If you change the ACD and the switch type for the new ACD supports fewer vector steps, a message asks if you want to lose the additional steps. If you change the ACD and the switch type for the new ACD supports more vector steps, additional vector steps are added automatically.

4. Add or delete any steps desired.
5. Select Modify. → *Successful appears on the status line to indicate that the vector has been copied.*

Modifying a Vector

1. In the Vector Contents window, enter the vector name or number you want to change in the Vector field, and then select Find one. → *The steps of the vector appear.*



Do not delete or change the name or number that appears in the ACD field.

- 2a. To **change** a command, move the cursor to the command you want to change, and press **Ctrl** **Y** to erase all characters in the field or **Ctrl** **X** to erase characters from the cursor to the end of the field. → *The data in the field disappears.*

Enter the new command, condition, or value in the field.

The new command overwrites the old command.

Complete, if necessary, any additional fields associated with the new command.

- 2b. To **insert** a command between two existing steps, move the cursor to the second of the two steps, and select Add step. After selecting Add step, type the desired command in the blank. *A blank step appears above the step on which the cursor was resting. The command the cursor was on, and any subsequent commands, move down one step.*

- 2c. To **delete** a command, move the cursor to the step that contains the command, and select Del step. *The command is removed, and any subsequent commands move up one step.*

3. Select Modify.

If the switch accepts the vector, Successful appears on the status line. If the switch does not accept the vector or a step in the vector, Failed appears on the status line, and an error message identifies the problem.

Note

You cannot insert a command in a vector that already uses all 32 allowable vector steps (or 15 allowable vector steps, for Generic 3 Version 1 and earlier switches).

Deleting a Vector's Contents

1. On a blank Vector Contents window, enter the name or number of the vector for which you want to delete the contents in the `Vector` field.

Note

Make sure that the name or number in the `ACD` field is the ACD from which you want to delete the contents of the specified vector.

2. Select `Modify`. → *A message asks you if you want to delete the vector's contents.*
3. Enter `y` to delete the vector's contents. → *The vector's contents are deleted.*

Note

You can also erase all steps in a vector by pressing `Ctrl Z`.

DEFINITY ECS/Generic 3 Switches Without EAS

Introduction

From the ACD Administration subsystem, you can do the following:

- Set an acceptable service level and service level increments which are used to track answered and abandoned calls in the Split/Skill Call Profile reports.
- Start an agent trace and list agents being traced.
- Run a report that lists extensions that are members of a specific split.
- Run a report that lists trunk group members and their equipment locations.
- View trunk group assignments.
- Move extensions between splits.

With the Call Vectoring feature, you also can do the following:

- Define vectors.
- Run a report that lists, by vector, the trunk groups and VDNs that direct calls to vectors.
- Set an acceptable service level and service level increments which are used to track answered and abandoned calls in the VDN Call Profile reports.
- Change VDN-to-vector assignments.

DEFINITY ECS/G3 Without EAS ACD Administration Menus

The items on the ACD Administration menu vary depending on the type of switch *CentreVu* CMS is connected to and the features that are available for and enabled on the switch. All Generic 3 non-EAS ACD Administration menu items are described in this section.

Note

More than most other subsystems in *CentreVu* CMS, the ACD Administration menus that you see depend on the type of switch that you have and its features.

For example, if the Call Vectoring feature has **not** been purchased and enabled, then menu items with VDN or Vector in their names do **not** appear on the ACD Administration or Configuration Reports menus.

ACD Administration Menu with Vectoring

Figure 6-21 shows the ACD Administration menu for the *DEFINITY* ECS and the Generic 3 switches with the Call Vectoring feature but *not* the EAS feature.

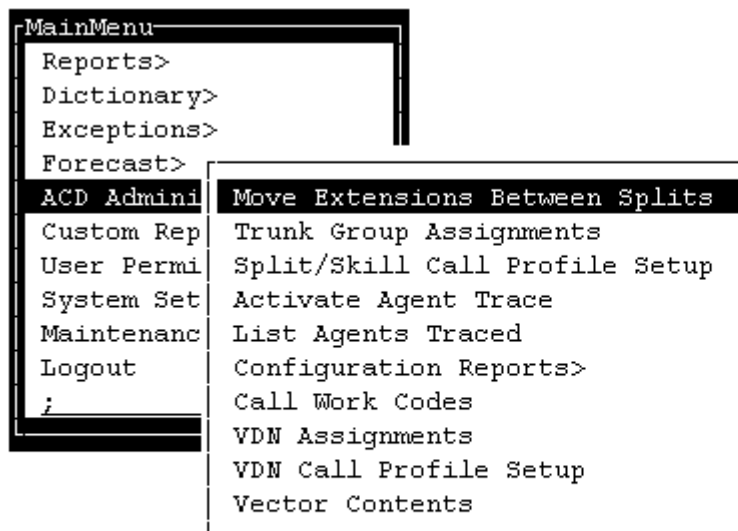


Figure 6-21: ACD Administration Menu—*DEFINITY* ECS/G3 Switches with Vectoring

ACD Administration Menu Without Vectoring

Figure 6-22 shows the ACD Administration menu for switches without the Call Vectoring or EAS features.

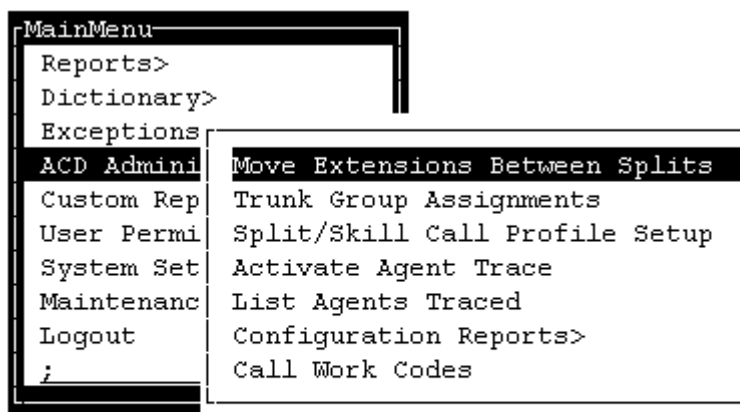


Figure 6-22: ACD Administration Menu—*DEFINITY* ECS/G3 Switches Without Vectoring

Move Extensions Between Splits

Purpose

Use the Move Extensions Between Splits window to view current extension assignments or to move extensions between measured splits.

Things to Know Before You Start

- You can move as many as 32 extensions in a single move.
- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** Screen-Labeled Key (SLK).
- For the *DEFINITY* ECS and the Generic 3 Version 4 switch, the requested move takes place immediately for agents who are in the AUX work mode, available, or logged out. For agents who are handling calls (including non-ACD calls, calls on hold, and direct agent calls waiting in queue), are in the ACW mode, or are the last agent in a non-vector-controlled split with calls in queue, the move is pending until the agent logs out, changes to AUX work mode, or completes all calls and ACW and becomes available. When these conditions are met, the agent extensions are automatically logged out of the moving-from split and logged in to the moving-to split.

Note

For agents who frequently have calls on hold, a move-extensions request can remain pending for a long time.

If agents are moved while staffed, they need a way to determine their current split assignment(s) so they know which split(s) to log out of. The VuStats feature (available for the *DEFINITY* ECS and the Generic 3 Version 3 or Version 4 switches) can provide agents with current split assignment and other ACD-related information.

- For Generic 3 Version 2 and Version 3 switches, the requested move takes place after the agent manually logs out.
- For the *DEFINITY* ECS or the Generic 3 Version 4 switch, agents cannot be preassigned to splits (through switch administration) and then moved to those splits from *CentreVu* CMS. If agents are preassigned to splits, the message “already assigned” appears if you try to move an agent to one of the preassigned splits.
- See Chapter 2, “User Basics” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite
System
Administration

- To move extensions between splits, you need **read/write** permission for the ACD Administration subsystem and for all affected splits. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
- To view extension assignments, you need **read** permission for the ACD Administration subsystem and for the splits you want to view.

Relationships to
Other
Subsystems

Dictionary

To enter a split name in the Split moving from or Split moving to field, the name must first be assigned in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for splits.

Timetable

You can place the Move Extensions Between Splits window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Note

When Timetable is used to move extensions between splits, information about the status of the move is not saved.

Move Extensions
Between Splits
Window

Use the Move Extensions Between Splits window (Figure 6-23) to view current extension assignments or to move extensions between splits.

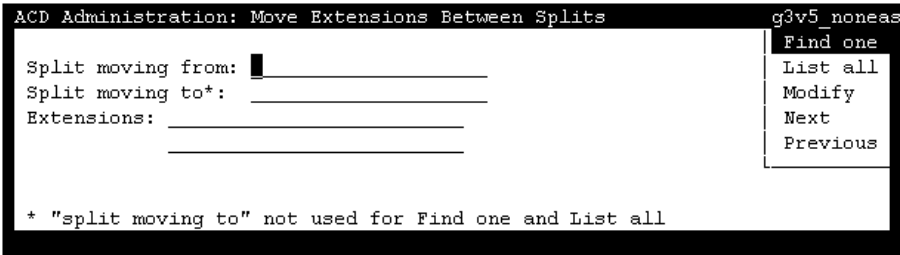


Figure 6-23: Move Extensions Between Splits Window

Field/Action List
Usage

Find one, Next, and Previous

When data are displayed as a result of a Find one, Next, or Previous action, only the current split that the agent is in is displayed in

the Split moving from field, and the Split moving to field is blank.

Find one and List all

Find one and List all use only the Split moving from field for the search.

Modify

Moves the specified extensions from their current split (Split moving from) to a different split (Split moving to). An entry is required in all fields for the modify action.

If you select Modify and the entire move request fails because the link to the *DEFINITY* ECS or switch is down, the information you entered in the input window is not valid, etc., an Acknowledgment window shows the reason for failure.

If the entire move completes successfully, Successful appears on the status line. If one or more of the requested moves fail or if moves are pending, a secondary status window shows the extensions that were not moved and the reason, or the pending status.

Field Descriptions**Split moving from:** (optional)

Enter the split number or name (must be previously assigned in the Dictionary subsystem) from which you are moving extensions. You must enter a value in this field for extensions (agents) that are members of multiple splits.

Split moving to*:

Enter the split number or name (must be previously assigned in the Dictionary subsystem) to which you are moving extensions.

Extensions:

Enter the extension number(s) to be moved.

As many as 32 extensions can be moved at the same time.

Status Window

If one or more of the requested moves fail or if moves are pending, a secondary status window shows the extensions that were not moved and the reason, or it shows the pending status.

Trunk Group Assignments (Switches with Vectoring)

Note If you have not purchased and enabled the Call Vectoring feature, then this Trunk Group Assignments window is **not** available.

Purpose

Use the Trunk Group Assignments window (Figure 6-24) to see what VDNs or non-vector-controlled splits your trunk groups are assigned to.

Automatic-in trunk groups on the *DEFINITY* ECS or Generic 3 switch must be assigned to VDNs or non-vector-controlled splits using a switch administration tool.

Note You cannot use this window to assign trunk groups or to change trunk group assignments.

Things to Know Before You Start

- DID trunk groups are **not** assigned to VDNs or splits since, with DID trunk groups, the Central Office passes VDN digits or split extension digits to the switch.
 - Trunk groups are **never** assigned to vector-controlled splits because vector-controlled splits can only receive calls through vector processing.
-

Prerequisite System Administration

- Trunk groups must be assigned to VDNs or splits using a switch administration tool. You can use *CentreVu* CMS only to **view** trunk-group assignments on the *DEFINITY* ECS or Generic 3 switches with the vectoring feature.
- To view trunk-group assignments, you must have **read** permission for the ACD Administration subsystem and for any trunk group(s), split(s), and VDN(s) you want to view. See "Feature Access" and "Split/Skill Access", "Trunk Group Access", or "VDN Access" in Chapter 7, "User Permissions" for more information.

Trunk Group Assignments Window (with Vectoring)

Use the Trunk Group Assignments window (Figure 6-24) to view trunk-group assignments for the *DEFINITY* ECS and for Generic 3 switches with the Call Vectoring feature.

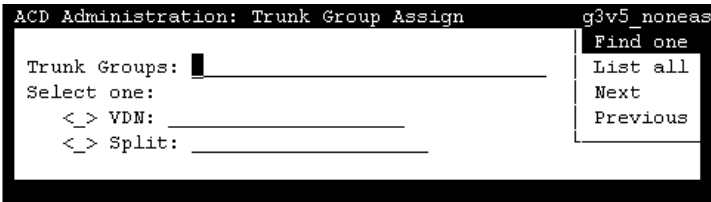


Figure 6-24: Trunk Group Assignments Window (*DEFINITY* ECS/Generic 3 with Vectoring)

Field/Action List Usage

Find one
To view specific trunk group assignments, complete the Trunk Groups field and either the VDN or the Split field.

List all
Selecting List all with blank fields displays a list of trunk groups and the VDNs or splits to which they are assigned.

Field Descriptions

Trunk Groups:
Enter the number(s) of the trunk group(s) you want to view.

VDN:
Enter an x to select VDN as the object(s) to search for. Also, enter the number or name (must be previously assigned in the Dictionary subsystem) of the VDN whose assigned trunk group(s) you want to view.

Split:
Enter an x to select Split as the object(s) to search for. Also, enter the number or name (must be previously assigned in the Dictionary subsystem) of the split whose assigned trunk group(s) you want to view.

Trunk Group Assignments (Switches Without Vectoring)

Purpose

Use the Trunk Group Assignments window to view trunk group assignments for the *DEFINITY* ECS and all switches.

Things to Know Before You Start

- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** Screen-Labeled Key.
 - If you have the Call Vectoring or Call Prompting feature, your window looks different. See the Call Vectoring/Prompting description for more information.
 - For the *DEFINITY* ECS and the Generic 3 switches, trunk group assignments can be displayed in this window [see the "Trunk Group Assignments (Switches with Vectoring)" section], but you cannot make any changes to them.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To change trunk group assignments, you need **read/write** permission for the ACD Administration subsystem and all affected trunk groups. See "Feature Access" and "Trunk Group Access" in Chapter 7, "User Permissions" for more information.
 - All affected splits and trunk groups must be measured.
 - To view trunk group assignments, you must have **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To use trunk group names, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information.

Timetable

You can place the Trunk Group Assignments window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Trunk Group Assignments Window (Without Vectoring)

Use the Trunk Group Assignments window (Figure 6-25) to view trunk group assignments for the *DEFINITY* ECS and all switches.

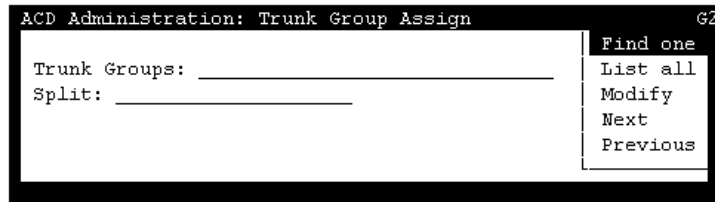


Figure 6-25: Trunk Group Assignments Window (Switches Without Vectoring)

Field Descriptions

Trunk Groups:

Enter the trunk group number(s) or name(s) (must be previously assigned in the Dictionary subsystem) that you are modifying (moving) or searching for. See on-line help for the valid numeric ranges for your particular switch.

Split:

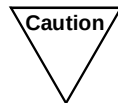
Enter the split number or name (must be previously assigned in the Dictionary subsystem) to which you are moving the trunk group(s). See on-line help for the valid numeric ranges for your particular switch.

Split/Skill Call Profile Setup

Purpose

Use the Split/Skill Call Profile Setup window to set a target *acceptable service level* (time limit in seconds) for calls to wait in queue before being answered and also to define the service level increments for split/skill call profile reports and graphs. You can then use the Split/Skill Call Profile reports to see how many calls were either answered or abandoned within each increment.

Things to Know Before You Start



You should turn off data collection to change the parameters in Call Profile Setup. See "Data Collection" in Chapter 8, "System Setup" for more information.

If you change the service level increments while CMS is collecting data, any data collected for the interval in which you made the change will be distorted. *CentreVu* CMS deletes the split/skill call profile data already collected for that interval and keeps only the split/skill call profile data collected in that interval after the change. *CentreVu* CMS then tries to combine the split/skill call profile data gathered both before and after the change into a single daily record of split/skill call profile data. As a result, some data are in the wrong service level increments. Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The increments shown on the report that includes the date on which the change was made will be the larger of the values for each increment before and after the change. For example, if you change from all "0s" to 1, 3, 5, 10, ..., the Split/Skill Call Profile report shows 1, 3, 5, 10, ... If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report shows 1, 5, 7, 10 for the date of the change.

To avoid misleading split/skill call profile data, change the increments early in the day, preferably before agents begin staffing splits/skills and before much data has been gathered. Also change the increments at the beginning of your reporting week and, if possible, the beginning of the month. If the beginning of the week does not coincide with the beginning of the month, you will not be able to avoid some misleading call profile data for the month in which you make the changes.

- You can set each of the first nine service level increments to a different time length. Each increment represents a unit of wait time.
 - If you do not administer this window, zero (0) seconds is used for all service level increments (therefore, all calls appear in the first increment on the Split/Skill Call Profile report).
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To add, delete, or change a split/skill call profile, you need **read/write** permission for the ACD Administration subsystem and for all affected splits/skills. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
 - To view split/skill call profiles, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To use names for splits/skills, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for split(s)/skill(s).

Reports

CentreVu CMS counts the calls that are either answered or abandoned within each increment and then displays the totals on the Split/Skill Call Profile reports and graph reports. Therefore, what you enter here affects what you see on the Split/Skill Call Profile reports (real-time and historical).

Timetable

You can place the Split/Skill Call Profile Setup window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Split/Skill Call
Profile Setup
Window

Use the Split/Skill Call Profile Setup window (Figure 6-26) to specify an acceptable service level for calls to wait in queue before being answered and to define the service level increments for splits/skills.

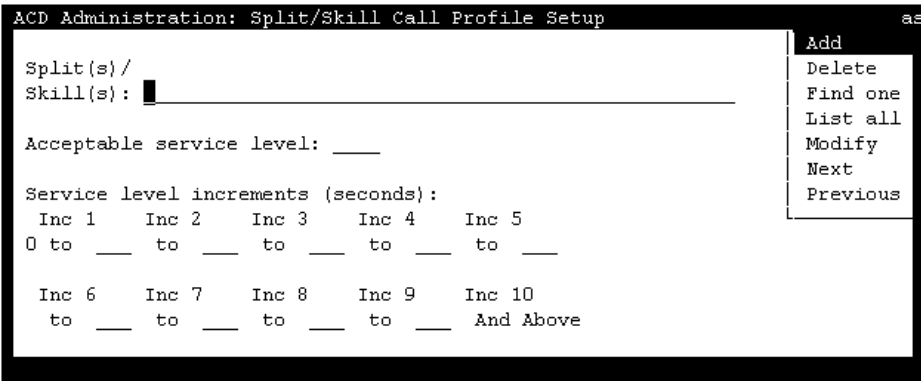


Figure 6-26: Split/Skill Call Profile Setup Window

Field Descriptions

Split(s)/Skill(s):

Enter the split or skill number(s) or name(s) (must be previously assigned in the Dictionary subsystem) you are searching for or modifying.

Acceptable service level: (Required entry)

Enter the number of seconds that is acceptable for an ACD call to wait before connecting to an agent.

Service level increments (seconds): (Required entry)

Enter a progressively greater number of seconds in each “to” field. The seconds before and after each word “to” define an increment in seconds of wait time. For example, “0 to 5 to 10 to 25 ...” means 0-5, 6-10, and 11-25, etc.

Each of the nine increments can vary in length (for example, 0 to 15, 16 to 20, 21 to 26, 27 to 38, 39 to 43, etc.). Each increment represents a progressively longer wait time for the call and is used for both answered and abandoned calls.

Activate Agent Trace

Purpose

Use the Activate Agent Trace window to start or stop *CentreVu* CMS tracing of agent activities, including agent state changes.

Things to Know Before You Start

- You can activate traces for a maximum of 250 agents (if your *CentreVu* CMS server is a *Sun Microsystems* computer) or 100 agents (if your *CentreVu* CMS server is an *Intel*-based computer). This limit applies to the number of agents administered to be traced by one *CentreVu* CMS server across all ACDs. It does not take into account whether or not the agents are logged in.
 - The agent trace file rolls over (the oldest records are discarded as the newest records are written) when the number of records reaches your allocated number (up to a maximum of 500,000 records). You do not have to delete agent trace records. If you want to keep old agent traces, you should print them.
 - To list agents and dates for which there are data in the current trace file, select the List Agents Traced menu option.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- You must have Data Collection turned **on** for the ACD to start/stop agent traces. See "Data Collection" in Chapter 8, "System Setup" for more information.
 - To set the amount of agent trace data to store, see "Data Storage Allocation" in Chapter 8, "System Setup" for more information.
 - To start or stop an agent trace, you need **read/write** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
 - To view agents being traced, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Historical Reports

You must start an agent trace before you can run an Agent Trace report. This report lists each agent activity and the time it occurred. The Agent Trace report can be helpful when evaluating how well individual agents

are using their time. See the “Historical Reports” chapter in the *CentreVu™ CMS R3V5 Real-Time and Historical Reports* (585-215-821) document for more information on the Agent Trace report.

Timetable

You can place the Activate Agent Trace window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Activate Agent Trace Window

Use the Activate Agent Trace window (Figure 6-27) to start or stop *CentreVu* CMS tracing of agent activities.

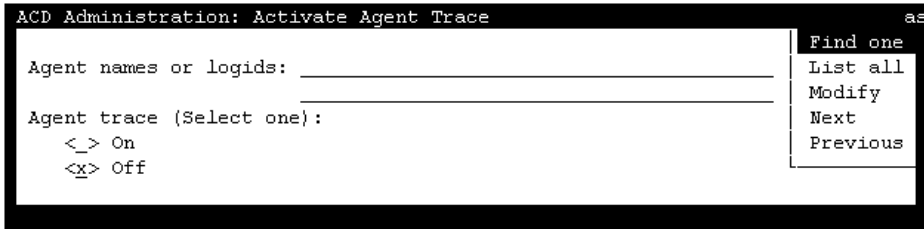


Figure 6-27: Activate Agent Trace Window

Field/Action List Usage

Modify

Use the `Modify` action to start or stop an agent trace. Complete the `Agent names or logids` field to specify the agents for whom a trace will be started or stopped.

List all

If you leave the fields blank, the list includes **all** agents in the ACD and their tracing status.

Field Descriptions

Agent names or logids:

Enter agent login ID(s) or name(s) (must be previously assigned in the Dictionary subsystem).

Agent trace (Select one): (Required entry)

Enter an `x` next to `On` or `Off` to start/stop a trace. `Off` is the default.

Note

Turning an agent trace off does **not** delete the records for that agent. Agent trace records are overwritten automatically when the trace file has filled up.

List Agents Traced

Purpose

Use the List Agents Traced window to list the agents and dates for which agent trace data are available for the current ACD.

Things to Know Before You Start

- You can list all the agents for which data are available for given dates, all the dates for which data are available for given agents, or all the dates and all the agents for which data are available.
 - See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- You must have turned **on** agent trace for some agents at some time in the past. See the "Activate Agent Trace" section for more information. Also, at some time in the past, those agents for whom traces were activated must have logged in to produce agent trace records.
 - To view a list of agents traced, you need **read** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Timetable

You can place the List Agents Traced window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

List Agents Traced Window

Use the List Agents Traced window (Figure 6-28) to view a list of agents and dates for which agent trace data are available.

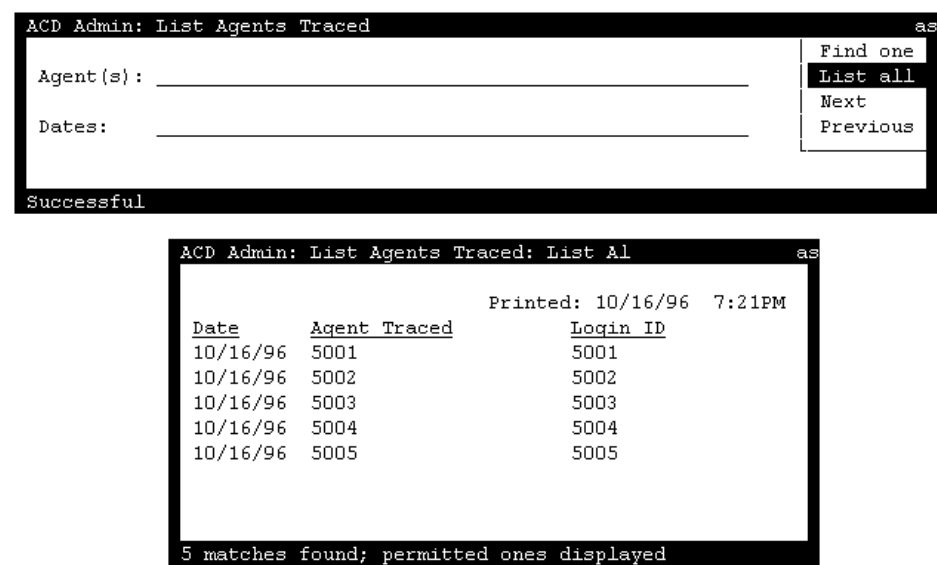


Figure 6-28: List Agents Traced Window

Field/Action List Usage

List all

This action brings up a secondary window listing the dates and agents for which agent trace data are available. This list is displayed by date.

Field Descriptions

Agent(s) :

Enter a list of agent login IDs or names (must have been previously assigned in the Dictionary subsystem).

Note If you leave this field blank, all agents for whom agent trace data are available are displayed.

Dates :

Enter a list or range of dates.

Note If you leave this field blank, all dates for which agent trace data are available are displayed.

Split Members Configuration

Purpose

Use the Split Members Configuration Input window to run a report showing extensions that are members of a specific split. This report is helpful for listing your splits and the extensions assigned to those splits.

Things to Know Before You Start

- You cannot create a custom report from the Split Members Configuration report.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To run a Split Members Configuration report, you need **read** permission for the ACD Administration subsystem and for all affected splits. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Dictionary

To use names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for splits.

Timetable

You can place the Split Members Configuration Input window and report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Split Members Input Window

Use the Configuration Reports: Split Members Input window (Figure 6-29) to run the Split Members Configuration report.

Figure 6-29: Split Members Configuration Input Window

Field/Action List Usage

Run

Select **Run** to generate a report.

Field Descriptions

Splits:

Enter split number(s) or name(s) (must be previously assigned in the Dictionary subsystem). See on-line help for the valid numeric ranges for your particular switch.

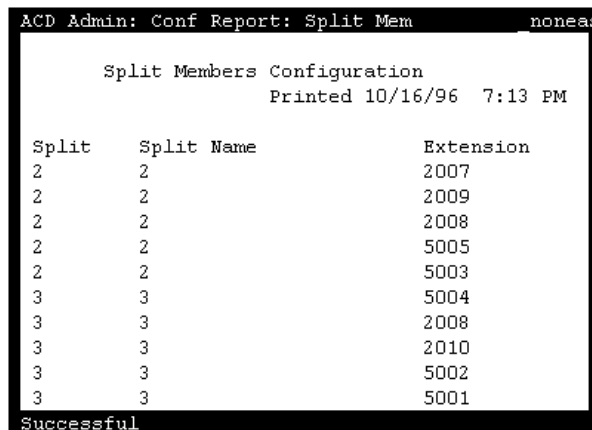
Report destination (Select one):

Enter an **x** next to **Terminal**, **Printer**, or **File**.

- **Terminal** is the default destination.
- If you selected **Printer** and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected **File**, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (*/usr/<your login ID>*) or *Solaris* system (*/export/home/<your login ID>*) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Split Members Configuration Report

The Split Members Configuration report (Figure 6-30) lists the selected splits in numerical order, each split's assigned name, and the extensions that are assigned to the split. If the split does not have a name assigned, the `Split Name` field displays the split number. If the split does not have any extensions assigned to it, the `Extension` field is blank.



```
ACD Admin: Conf Report: Split Mem      noneas
```

Split	Split Name	Extension
2	2	2007
2	2	2009
2	2	2008
2	2	5005
2	2	5003
3	3	5004
3	3	2008
3	3	2010
3	3	5002
3	3	5001

Successful

Figure 6-30: Split Members Configuration Report

Trunk Group Members Configuration

Purpose

Use the Trunk Group Members Configuration Input window to run a report showing trunk group members and their equipment locations for a particular trunk group. This report helps you quickly find a trunk's location.

Things to Know Before You Start

- You cannot create a custom report from the Trunk Group Configuration report.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To run this configuration report, you need **read** permission for the ACD Administration subsystem and for all affected trunk groups. See "Feature Access" and "Trunk Group Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Dictionary

To use names for trunk groups, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for trunk groups.

Timetable

You can schedule the Trunk Group Members Configuration Input window and report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Trunk Group Members Input Window

Use the Configuration Reports: Trunk Group Members Input window (Figure 6-31) to run the Trunk Group Configuration report.

Figure 6-31: Trunk Group Members Configuration Input Window

Field/Action List Usage

Run

Select **Run** to generate a report.

Field Descriptions

Trunk Groups:

Enter the trunk group number(s) or name(s) (must be previously assigned in the Dictionary subsystem).

- The report displays the trunk group number/name and trunk number within the trunk group.
- See on-line help for the valid numeric ranges for your particular switch.

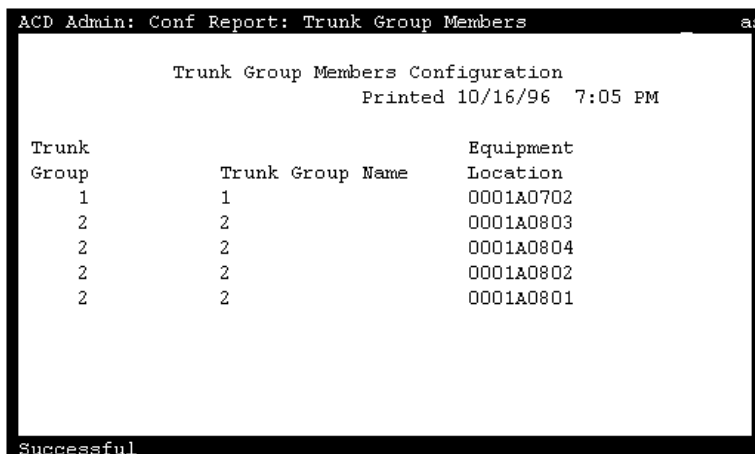
Report destination (Select one):

Enter an **x** next to **Terminal**, **Printer**, or **File**.

- **Terminal** is the default destination.
- If you selected **Printer** and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected **File**, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (`/usr/<your login ID>`) or *Solaris* system (`/export/home/<your login ID>`) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Trunk Group Members Configuration Report

The Trunk Group Members Configuration report (Figure 6-32) lists the selected trunk groups in numerical order, each trunk group's assigned name, and the equipment location of each trunk in the trunk group. If the trunk group does not have a name assigned, the Trunk Group Name field displays the trunk group number. If the trunk group does not have any trunks assigned to it, then the Equipment Location field is blank.



Trunk Group	Trunk Group Name	Equipment Location
1	1	0001A0702
2	2	0001A0803
2	2	0001A0804
2	2	0001A0802
2	2	0001A0801

Figure 6-32: Trunk Group Members Configuration Report

Vector Configuration

Note

If you have not purchased and enabled the Call Vectoring feature, the Vector Configuration window is **not** available.

Purpose

Use the Vector Configuration Input window to run the Vector Configuration report which lists the trunk groups and VDNs associated with the specified vector.

Things to Know Before You Start

- A vector number may appear in the report even if it does not currently have an associated trunk group. A vector number may also appear even if the vector does not yet contain any steps.
 - On the *DEFINITY* ECS or the Generic 3 switches, a “goto vector” step can cause a trunk group and/or VDN to carry calls to a vector to which the carrying VDN has not been assigned. Trunk groups and VDNs that carry calls to a secondary vector this way do not appear in the configuration report for those secondary vectors.
 - You cannot create a custom report from a Vector Configuration report.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To run a Vector Configuration report, you must have **read** permission for the ACD Administration subsystem and the vector(s) you want listed in the report. (See "Feature Access" and "Vector Access" in Chapter 7, "User Permissions" for more information.) However, the trunk groups and VDNs carrying calls to the vector(s) are listed even if you do not have read permission for those VDNs and trunk groups.

Relationships to Other Subsystems

Timetable

You can schedule the Vector Configuration report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Vector Input Window (Without EAS)

Use the Configuration Reports: Vector Input window (Figure 6-33) to run the Vector Configuration report.

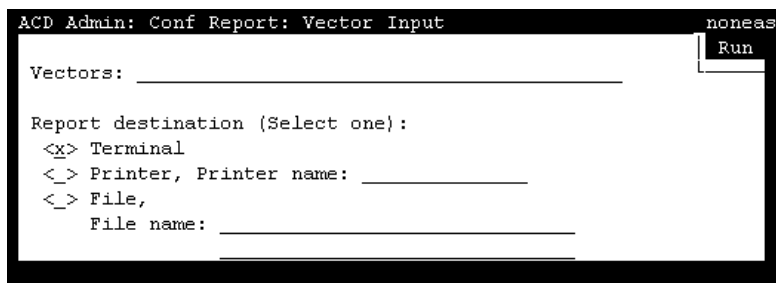


Figure 6-33: Vector Configuration Input Window (*DEFINITY* ECS/Generic 3 Switches Without EAS)

Field Descriptions

Vectors:

Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of one or more vectors for which you want to see the assigned VDNs and trunk groups.

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (/usr/<your login ID>) or *Solaris* system (/export/home/<your login ID>) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Vector Configuration Report

The Vector Configuration report (Figure 6-34) lists the specified vectors, each vector's assigned VDN(s), and each VDN's assigned trunk group(s). If a VDN has no assigned trunk groups, the Trunk Group and Trunk Group Name fields are blank. If a vector has no assigned VDNs, the VDN and VDN Name fields are also blank.

Although the report lists each vector's VDNs, VDNs that have trunk groups assigned are listed first.

ACD Admin: Conf Report: Vector noneas

Vector Configuration Printed 10/16/96 6:55 PM

Trunk Group	Trunk Group Name	VDN	VDN Name	Vector	Vector Name
		2002	2002	2	2
		2003	2003	3	3
		2001	2001	4	4
				1	1
				5	5

Successful

Figure 6-34: Vector Configuration Report

Call Work Codes

Purpose

Use the Call Work Codes window to add, delete, or view the Call Work Codes for which *CentreVu* CMS collects data. A Call Work Code is a number you assign to a particular call type or activity your call center wants to track, for example, a sale item, complaints, repeat orders, promotional ads, or sales made using a credit card. Agents use the dial pad on their voice terminal to enter Call Work Codes. You can then see this data on the Call Work Code and Call Record historical reports.

Things to Know Before You Start

- Call Work Codes must be positive integers with 1 to 16 digits. Codes comprising 1 to 9 digits may be assigned names in the Dictionary subsystem. It is recommended that you specify a fixed number of digits for **all** Call Work Codes. A fixed number of digits makes it easier to add, delete, and search for Call Work Codes.
 - Call Work Code 0 is always assigned and is used to collect information on unadministered Call Work Codes. You cannot delete Call Work Code 0. If an agent enters an unadministered Call Work Code, it shows up as code 0 on the Call Work Code report. If the Invalid Call Work Code exception is assigned, the Agent Exceptions historical report shows agents who entered invalid (unassigned) Call Work Codes.
 - Call Work Codes are assigned to a specific ACD and as many as 1999 Call Work Codes can be assigned per *CentreVu* CMS (for all ACDs). If you try to assign more than 1999 codes, the add operation will fail.
 - To use the standard Call Work Code reports, you must administer the codes using the Call Work Codes window. To use call records to collect call work code data, you do **not** have to use this window to administer the codes.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- Disk space must be allocated for Call Work Code data storage. See "Data Storage Allocation" in Chapter 8, "System Setup" for more information.

- You must also identify and specify where you want to store Call Work Code data. See "Free Space Allocation" in Chapter 8, "System Setup" for more information.
 - To add or delete Call Work Codes, you need **read/write** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
 - To view Call Work Codes, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Reports

Daily, weekly, and monthly standard historical reports are available for Call Work Codes. Call Work Codes also appear on the standard historical Call Record report. See the Call Work Code Report and Call Record sections of the Historical Reports chapter in the *CentreVu™ Call Management System R3V5 Real-Time and Historical Reports* (585-215-821) document for more information on these reports.

Dictionary

For a name to appear in the report instead of the numerical code, the name must first be entered in the Dictionary subsystem. Only Call Work Codes comprising 1 to 9 digits can be assigned names. See "Call Work Codes" in Chapter 4, "Dictionary".

Exceptions

You can administer an exception for agents who enter invalid (unadministered) Call Work Codes. See Chapter 5, "Exceptions" for more information.

Timetable

You can place the Call Work Codes window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Call Work Codes Window

Use the Call Work Codes window (Figure 6-35) to add, delete, or view the Call Work Codes for which *CentreVu* CMS collects data.

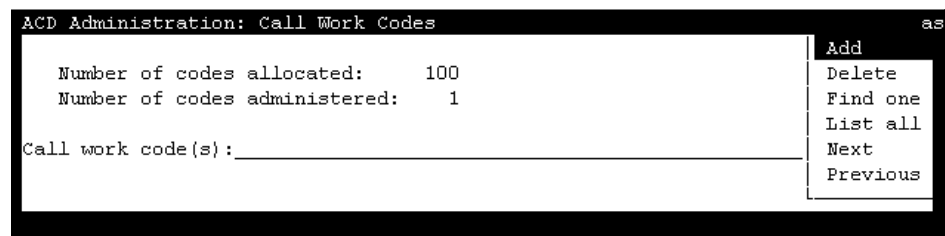


Figure 6-35: Call Work Codes Window

Field Descriptions

Number of codes allocated: (Display only)

This is the total number of Call Work Codes that will be saved in the *CentreVu* CMS database. (This number comes from the "Data Storage Allocation" window in the "System Setup" subsystem.)

Number of codes administered: (Display only)

This is the total number of Call Work Codes currently in use (administered using this window).

Call work code(s):

Enter the Call Work Code(s) you want agents to use.

Note

It is recommended that you specify a fixed number of digits for **all** Call Work Codes. A fixed number of digits makes it easier to add, delete, and search for Call Work Codes.

VDN Assignments

Note

If you have not purchased and enabled the Call Vectoring feature, the VDN Assignments window is **not** available.

Purpose

Use the VDN Assignments window (Figure 6-36) to change VDN-to-vector assignments.

VDNs, which are initially assigned to vectors on the switch, provide a software link to vectors. This link is necessary for ACD calls to enter vector processing.

Things to Know Before You Start

- You can assign multiple VDNs to a single vector. However, you **cannot** assign a VDN to more than one vector.
 - You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current SLK**.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
 - When scheduling VDN moves, you need to group all VDN moves together on one timetable, or schedule them far enough apart so that one move completes before the next one starts.
-

Prerequisite System Administration

- To change VDN assignments, you must have **read/write** permission for the ACD Administration subsystem and for the vector to which you are assigning the VDNs. See "Feature Access" and "Vector Access" in Chapter 7, "User Permissions" for more information.
 - To view VDN assignments, you must have **read** permission for the ACD Administration subsystem and for the vector and VDN(s) you want to view.
-

Relationships to Other Subsystems

Timetable

You can schedule VDN assignment changes on a timetable. This capability can be particularly useful if you want to make assignments during off-hours. See Chapter 3, "Timetable and Shortcut".

VDN
Assignments
Window

Use the VDN Assignments window (Figure 6-36) to view or change the VDN-to-vector assignments.

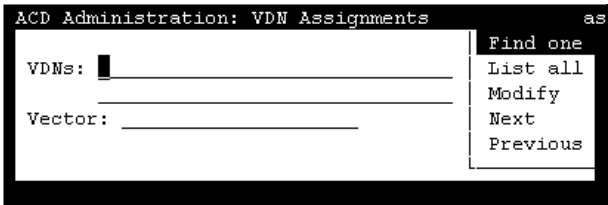


Figure 6-36: VDN Assignments Window

Field/Action List
Usage

Modify

To change VDN assignments, complete the VDNs and Vector fields and select Modify.

List all

Selecting List all with blank input fields displays a list of VDNs and the vectors to which they are assigned. If a VDN is not assigned to a vector, the VDN is shown with a blank Vector in the List All window.

Field Descriptions

VDNs :

Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of the VDN(s) you want to reassign.

To determine to what vectors all measured VDNs have been assigned, leave the input fields blank and select List all.

Vector :

Enter the number or name (must be previously assigned in the Dictionary subsystem) of the vector to which you want to assign the VDN(s). To determine what vectors the VDNs have been assigned to, leave the input fields blank and select List all.

VDN Call Profile Setup

Note

If you have not purchased and enabled the Call Vectoring feature, the VDN Call Profile Setup window is **not** available.

Purpose

Use the VDN Call Profile Setup window (Figure 6-37) to set up a VDN call profile and to define acceptable service levels (wait time) and service level increments for VDNs.

CentreVu CMS counts the number of calls that are answered, connected to a non-ACD destination, and abandoned within each increment and displays them on the VDN Call Profile reports.

Note

CentreVu CMS stores zeros as default values for the profile increments. That is, *CentreVu* CMS does not collect or store meaningful VDN call profile report data until you administer the increments for a particular VDN. Instead, a call profile report for a VDN adds up all answered and connected calls, and displays the total, as well as the number of abandoned calls, in the first increment of the report.

Things to Know Before You Start

Caution

You should turn off data collection to change the parameters in Call Profile Setup. See "Data Collection" in Chapter 8, "System Setup" for more information.

If you change the service level increments while CMS is collecting data, any data that is collected for the interval in which you made the change will be distorted. *CentreVu* CMS deletes the VDN call profile data already collected for that interval and keeps only the VDN call profile data that was collected in that interval after the change. *CentreVu* CMS then tries to combine the VDN call profile data gathered both before and after the change into a single daily record of VDN call profile data. As a result, some data are placed in the wrong service level increments.

Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The increments shown on the report that includes the date on which the change was made will be the larger of the values for each increment before and after the change. For example, if you change from all "0s" to 1, 3, 5, 10, ..., the VDN Call Profile report shows 1, 3, 5, 10, ... If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report shows 1, 5, 7, 10 for the date of the change.

To avoid misleading VDN call profile data, change the increments early in the day, preferably before agents begin staffing splits/skills and before much data has been gathered. Also change the increments at the beginning of your reporting week and, if possible, the beginning of the month. If the beginning of the week does not coincide with the beginning of the month, you will not be able to avoid some misleading call profile data for the month in which you make the changes.

- You can set each of the first nine service level increments to a different time length. Each increment represents a unit of wait time.
- *CentreVu* CMS always tracks and records call information for each VDN the call reaches until the call is answered, connected to a non-ACD destination, abandoned, or routed to another VDN or off the switch.

Prerequisite System Administration

- To add, delete, or change a VDN call profile, you must have **read/write** permission for the ACD Administration subsystem and for the affected VDNs. See "Feature Access" and "VDN Access" in Chapter 7, "User Permissions" for more information.
 - To view a VDN call profile, you must have **read** permission for the ACD Administration subsystem and for the affected VDNs.
-

Relationships to Other Subsystems

Reports

The service level increments you define for a VDN determine the increments that appear for that VDN on both the real-time and historical VDN Call Profile reports. The acceptable service level that you define for a VDN affects the percentage of calls answered within service level shown on that VDN's Call Profile report.

Timetable

You can schedule VDN Call Profile changes on a timetable.

VDN Call Profile Setup Window

Use the VDN Call Profile Setup window (Figure 6-37) to define the acceptable service level and service level increments for VDNs.

Figure 6-37: VDN Call Profile Setup Window

Field/Action List Usage

Add

To add a VDN call profile, complete all fields and select **Add**.

To copy an existing VDN call profile to a VDN that does not yet have a profile, use **Find one** to display the profile you want to copy; then change the VDN listed in the VDNs field to the desired VDN(s), and select **Add**.

Delete

To delete a VDN call profile, complete only the VDNs field and select **Delete**.

Modify

To modify a VDN call profile, use **Find one** to display a profile; then change the desired fields, and select **Modify**.

Field Descriptions

VDNs :

Enter the VDN number(s) or name(s) (must be previously assigned in the Dictionary subsystem) whose profile you want to add, delete, change, or copy.

To determine what VDNs are assigned to vectors, clear the input fields on the VDN Assignments window and select **List all** from the action list. See "VDN Assignments" in this chapter.

Acceptable service level:

Enter a number of seconds to define the maximum acceptable time for incoming calls to the VDN to wait before connecting to an agent. Calls answered within the service level, abandoned within the service level, and outflowed within the service level are recorded in the CMS database (ACCEPTABLE, SLVLABNS, and SLVLOUTFLOWS, respectively). These items can then be used to calculate call percentages within service level.

The number of seconds can be from 1 to 3600, the maximum number of seconds in an hour-long intrahour interval.

Inc 1

Enter a number of seconds from 1 to 3600 to specify the lowest service level increment.

- The number you enter is the top of the range of seconds.
- *CentreVu* CMS counts calls that are either answered, connected to non-ACD destinations, or abandoned within this range, and it displays the totals on the VDN Call Profile report.

Inc 2 through Inc 9

Enter a number of seconds to define the second through the ninth service level increments.

- The number of seconds you enter for each increment must be at least 1 second greater than the number of seconds of the previous increment. For example, if the number of seconds you entered for previous increment is 25, you must enter at least 26 seconds in the current increment.
- The number you enter forms a range with the number you entered for the previous increment. Though the number you enter is included in the range (and is the top of the range), the number from the previous increment is not included in the range. For example, "0 to 5 to 10 to 25 ..." means 0-5, 6-10, and 11-25, etc. *CentreVu* CMS counts calls that are either answered, connected to a non-ACD destination, or abandoned within each range, and it displays the totals on the VDN Call Profile report.

Vector Contents

Note

This menu item only appears for switches with the Call Vectoring feature. Also, the Vector Contents window is available **only** if the current ACD is a real ACD (that is, it is not a pseudo-ACD).

Purpose

Use the Vector Contents window to add a new vector or to change an existing vector. A vector is an ordered set of call-processing commands called vector steps.

Things to Know Before You Start

- For the *DEFINITY* ECS and for the Generic 3 Version 2 or later switches, a single vector can have as many as 32 steps. All earlier switches support as many as 15 steps in a single vector.
- You cannot exit the Vector Contents window using the **Exit** SLK until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** SLK.
- Each step in a vector is a dynamic field in which you can enter one of a variety of commands and conditions. If you enter the first unique character(s) of a command, *CentreVu* CMS automatically displays command words and additional input fields that you must complete.
- Use the following keys in the Vector Contents window.

↓ or **Tab**

Move the cursor to the next field.

↑ or **Shift Tab**

Move the cursor to the previous field.

→

Move the cursor to the right within a field.

←

Move the cursor to the left within a field.

Back Space

Delete characters in a field.

Ctrl X

Delete characters from the cursor to the end of the field.

Ctrl Y

Delete all characters in the field.

Ctrl Z

Delete all steps in the vector.

- If you leave a blank step in a vector, *CentreVu* CMS automatically replaces the blank with a “goto step” command when you select Modify. The “goto step” command sends vector processing to the next step in the vector.
- You may enter vector commands that reference splits to which you have neither read nor write permission.
- You **cannot** place the Vector Contents window on a timetable.
- You can link one vector with another vector with a “goto vector” command. Linking two vectors creates a virtual vector of more than 32 steps (or 15 steps, for Generic 3 Version 1 and earlier switches). Yet, as a call moves from one vector to another, the original VDN continues to carry the call and permits accurate reports on specific-purpose call traffic.
- Your vectors may contain Call Vectoring commands, Call Prompting commands, or both, depending on which features have been purchased and enabled on the switch. See Table 6-2.
- The maximum queue length assigned to a split could affect the “calls queued to split” condition for “goto” and “check backup split” commands. For example, if the maximum queue length administered on the switch for a split is 20, but your calls queued condition is greater than 20, then the condition always fails.

Prerequisite System Administration

- To change a vector's contents, you must have **read/write** permission for the ACD Administration subsystem and for the vector. See “Feature Access” and “Vector Access” in Chapter 7, “User Permissions” for more information.
- To view a vector, you must have **read** permission for the vector.
- To process calls, at least one VDN must be assigned to a vector.
- A split referenced in a “queue to main split” or “check backup split” vector command must be specified as vector-controlled on the split's Hunt Group Form. See the *DEFINITY® Enterprise Communications Server Call Vectoring/Expert Agent Selection (EAS) Guide*, 555-230-520.
- For Generic 3 switches with the Call Prompting feature, at least one TN744 circuit pack (which has eight touch-tone receivers) must be connected to the switch.

Vector Contents Window

Use the Vector Contents window (Figure 6-38) to view a vector's contents and to add a new vector or change the steps in an existing vector.

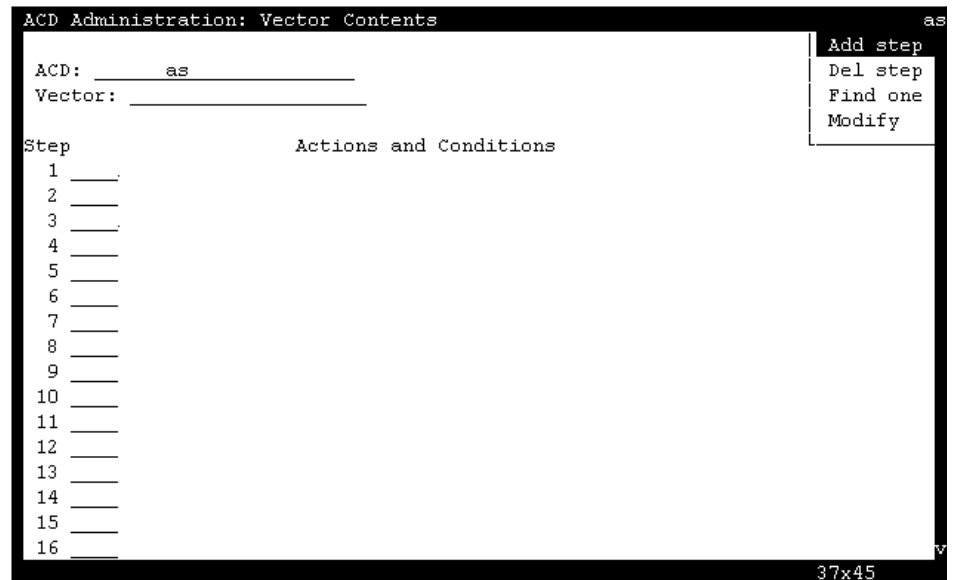


Figure 6-38: Vector Contents Window

Field/Action List Usage

Modify

To **add** a vector, **change** the contents of a vector, or **copy** the contents of a vector, you must use **Modify**. See the appropriate procedure ("Adding a New Vector", "Modifying a Vector", or "Copying a Vector") later in this section.

Add step

To **insert** steps between existing steps in a vector, you can place the cursor on a step and select **Add step**. *CentreVu* CMS creates a blank step above the step on which you placed the cursor. You can then enter the command and conditions you want for the new step. However, you must still select **Modify** (see "Modifying a Vector") to save the vector with the steps you inserted.

Del step

To **delete** steps in a vector, you can place the cursor on a step and select **Del step**. *CentreVu* CMS deletes the command for that step and moves

any subsequent commands up one step. However, you must still select **Modify** (see "Modifying a Vector") to save the vector without the steps you deleted.

Find one

To **view** a vector's contents, complete the **ACD** and **Vector** fields and select **Find one**.



Your vector does not have to be complete or logical in order to save it. However, if an active VDN is assigned to an incomplete or illogical vector, calls will receive inappropriate treatment.

Field Descriptions

ACD:

Enter the number or name (must have been previously assigned in the Dictionary subsystem) of the ACD for which you want to define a vector.

The default ACD number or name in this field is the current ACD.

Vector:

Enter the number or name (must have been previously assigned in the Dictionary subsystem) of the vector you want to find, add or change.

Steps 1 through 15 or Steps 1 through 32

To enter a vector command, move the cursor to the appropriate vector step and type the first unique letter(s) of the command (for example, **g** for the **goto** command). *CentreVu* CMS automatically displays the rest of the command.

Likewise, if the allowed values for an input field are words (for example, **mon, tue**), you only have to enter the first unique letter(s) of the word and *CentreVu* CMS automatically displays the rest of the word. This automatic display also applies to the **if** conditions for the **goto** and **check backup** commands.



Automatic display does not work for an input field if **none** is an allowed value (for example, the **disconnect** or the **collect digits** command), or if the allowed values include both numeric and alpha characters.

The input field for a command word contains only the first four letters of the word. These letters are usually underlined. To change a command word:

- Enter the first unique letter(s) of the word.

OR

- Press **Ctrl Y** to delete the four letters in the field, and then type the first unique letter(s) of a different command word.

CentreVu CMS automatically changes the remaining text and any other input fields in the command to match the word you entered. However, you must move the cursor to the remaining fields of the command and also enter the appropriate values.

You may need to press **Tab** or the spacebar in almost all fields. For the *DEFINITY* ECS and the Generic 3 Version 2 or later switches, if you are on the last field in the window, tabbing out of the field moves you to the next “page” of vector steps (17 through 32).

Table 6-2 lists the available vector commands for the *DEFINITY* ECS and the Generic 3 and later switches without the EAS feature, and the allowable values for each input field. For a more detailed description of each command, see Appendix B, “Call Vectoring and Related ECS/Generic 3 Features”.

Table 6-2: Vector Commands—DEFINITY ECS/Generic 3 without EAS

<u>adjunct routing link</u> _____ (extension of adjunct port)
<u>announcement</u> ^a _____ (1- to 5-digit extension)
<u>busy</u>
<u>collect</u> ^a _____ digits after announcement _____ (1-16) (Optional: 1- to 5-digit extension or none)
<u>disconnect after announcement</u> _____ (Optional: 1- to 5-digit extension or none)
<u>messaging split</u> ^a _____ for extension _____ (1-24 [G3vs/s]) (1- to 5-digit extension, active, latest [default]) ^b (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])

a. This command is also available with Call Prompting.

b. Active means the called VDN as changed by VDN override. Latest means the VDN assigned to the vector in which the call is currently being processed.

Table 6-2: Vector Commands—*DEFINITY* ECS/Generic 3 without EAS (Contd)

<u>queue-to</u> main split _____	
(1-24 [G3vs/s])	pri _____
(1-99 [G3i])	(low, med,
(1-255 [G3r])	high, top)
(1-600 [ECS])	
<u>route-to</u> <u>digits</u> with cov _____	
	(y or n)
<u>route-to</u> <u>number</u> _____	if <u>digit</u> equals _____
(1- to 16-digit number,	(0-9)
which may include ~p,	
~s, ~w, ~W, or ~m)	
	<u>unconditionally</u>
<u>stop</u> ^a	
<u>wait-time</u> ^a _____ secs hearing _____	
(0-998) ^b	(music, ringback, silence)

a. This command is also available with Call Prompting.

b. Even numbers only.

Table 6-2: Vector Commands—DEFINITY ECS/Generic 3 without EAS (Contd)

<u>check-backup split</u>	_____	pri ____	if	<u>rolling-asa</u>	<	_____
	(1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	(low, med, high, top)				(2-998) ^a
				<u>available-agents</u>	>	_____
						(0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
				<u>calls-queued</u>	<	_____
						(1-200 [G3i/vs/s]) (1-999 [G3r])
				<u>expected-wait</u>	<	_____
						(1-9999)
				<u>oldest-call-wait</u>	<	_____
						(2-998) ^a
				<u>staffed-agents</u>	>	_____
						(0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
				<u>unconditionally</u>		
<u>converse-on split</u>	_____	pri ____	passing	<u>DATA 1</u> ^b	and	<u>DATA 2</u>
	(1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	(low, med, high, top)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits,” ^c “qpos,” “wait,” ^d “#,” or “none”)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits,” ^c “qpos,” “wait,” ^d “#,” or “none”)

a. Even numbers only.

b. If DATA 1 is administered as “none,” DATA 2 must also be administered as “none.”

Table 6-2: Vector Commands—*DEFINITY* ECS/Generic 3 without EAS (Contd)

<u>goto step</u> ^a	<u>if</u> (1-32) or (1-15 [G3V1])	<u>ani</u> ^b	<u>(<, >, <=, >=)</u> ^c (< >, =)	<u>(1-16 characters: 0-9)</u> (1-16 characters: 0-9, ?, +, none) ^d
		<u>ani</u> ^b	<u>(in, not-in)</u>	<u>table</u> (1-5 [G3vs/s]) (1-10 [G3i]) (1-100 [G3r])
	<u>rolling-asa for</u> ^e	<u>vdn</u>	<u>(VDN, active, latest)</u> ^f	<u>(<, <=)</u> (>, >=, < >, =) (2-998) ^g (0-998) ^g
	<u>rolling-asa for</u> ^e	<u>split</u>	<u>(1-24 [G3vs/s])</u> (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	<u>(<, <=)</u> (>, >=, < >, =) (2-998) ^g (0-998) ^g
	<u>available-agents in split</u>	<u>(1-24 [G3vs/s])</u> (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	<u>(<, <=)</u> (>, >=, < >, =)	<u>(1-150 [G3vs/s], 1-200 [G3i], 1-999 [G3r])</u> (0-149 [G3vs/s], 0-199 [G3i], 0-998 [G3r])
	<u>calls-queued in split</u>	<u>(1-24 [G3vs/s])</u> (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	<u>pri</u> (low, med, high, top)	<u>(<, <=)</u> (>, >=, < >, =) (1-200 [G3vs/s/i], 1-999 [G3r]) (0-199 [G3vs/s/i], 0-998 [G3r])
	<u>counted-calls to vdn</u> ^e	<u>(VDN, active, latest)</u> ^f	<u>(<, <=)</u> (>, >=, < >, =)	<u>(1-999)</u> (0-999)
	<u>digits</u> ^h	<u>(in, not-in)</u>	<u>table</u>	<u>(1-5 [G3vs/s])</u> (1-10 [G3i]) (1-100 [G3r])
	<u>digits</u> ^h	<u>(<, >, <=, >=)</u> (< >, =)	<u>(1-16 characters: 0-9)</u> (1-16 characters: 0-9, #, ?, +, none) ^d	

a. The “goto vector” command is identical to the “goto step” command, except the word “step” is replaced by the word “vector.” The valid values for vector are: 1-48 [G3vs/s], 1-256 [G3i], 1-512 [G3r].

b. The Vectoring (ANI/II-Digits Routing) and Vectoring (G3V4 Enhanced) options must be enabled.

c. The <=, >=, < >, and = comparators are new for G3V4. <= means less than or equal to, >= means greater than or equal to, < > means not equal to, and = means equal to.

d. A ? can be entered in any character position and matches any character in that single character position. A + must be entered as either the first or last character of the string and matches any or no characters. The + uses two of the 16 available characters.

e. The Vectoring (G3V4 Advanced Routing) and Vectoring (G3V4 Enhanced) options must be enabled.

f. Active means the called VDN as changed by VDN override. Latest means the VDN assigned to the vector in which the call is currently being processed.

g. Even numbers only.

h. The Call Prompting feature must be enabled.

Table 6-2: Vector Commands—DEFINITY ECS/Generic 3 without EAS (Contd)

<u>goto step</u> ^a	<u>if</u>	<u>expected-wait for</u> ^b	<u>split</u>	<u>_____</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	<u>pri</u> _____ (low, med, high, top)
		<u>expected-wait for</u> ^b	<u>call</u>	<u>_____</u> (<, <=) ^c (>, >=, < >, =)	<u>_____</u> (1-9999) (0-9999)
		<u>ii-digits</u> ^d	<u>_____</u> (in, not-in)	<u>table</u>	<u>_____</u> (1-5 [G3vs/s]) (1-10 [G3i]) (1-100 [G3r])
		<u>ii-digits</u> ^d	<u>_____</u> (<, >, <=, >=) (< >, =)	<u>_____</u> (00-99) [00-99, +, +?, ?+, ??, ?x (where x = 0-9), x?, none] ^e	
		<u>oldest-call-wait in split</u>	<u>_____</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	<u>pri</u> _____ (low, med, high, top)	<u>_____</u> (<, <=) (>, >=, < >, =) (2-998) ^f (0-998) ^f
		<u>staffed-agents in split</u>	<u>_____</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r]) (1-600 [ECS])	<u>_____</u> (<, <=) (>, >=, < >, =)	<u>_____</u> (1-150 [G3vs/s], 1-200 [G3i], 1-999 [G3r]) (0-149 [G3vs/s], 0-199 [G3i], 0-998 [G3r])
		<u>time-of-day is</u>	<u>_____</u> (mon, tue, wed, thur, fri, sat, sun, all)	<u>_____ to</u> (hh:mm in military time or am/pm)	<u>_____</u> (mon, tue, wed, thur, fri,sat, sun, all)
		<u>unconditionally</u> ^g			

a. The “goto vector” command is identical to the “goto step” command, except the word “step” is replaced by the word “vector.” The valid values for vector are: 1-48 [G3vs/s], 1-256 [G3i], 1-512 [G3r].

b. The Vectoring (G3V4 Advanced Routing) and Vectoring (G3V4 Enhanced) options must be enabled.

c. The <=, >=, < >, and = comparators are new for G3V4. <= means less than or equal to, >= means greater than or equal to, < > means not equal to, and = means equal to.

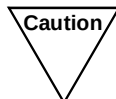
d. The Vectoring (ANI/II-Digits Routing) and Vectoring (G3V4 Enhanced) options must be enabled.

e. A ? matches any digit 0-9 in that single digit position. A + matches any or no characters.

f. Even numbers only.

g. This command is also available with Call Prompting.

Adding a New Vector



You should **always** test your vector by sending test calls to the vector. You can send test calls by dialing a test VDN that is assigned to the vector. A test VDN should not be currently in use for real calls nor referenced (by way of a “route to” command) in a vector that is currently in use. If you do not test your vectors, real incoming calls may receive inappropriate treatment.

1. Select Vector Contents from the ACD Administration submenu. → *The Vector Contents window appears with the current ACD name or number displayed in the ACD field.*
2. Enter the number or name of the vector you want to add in the Vector field. Do a Find one first to ensure you are not overwriting steps that already exist for the vector. → *The steps in the vector appear.*



Do not delete or change the name or number that appears in the ACD field.

3. For each vector step, enter the initial letter(s) of a command, and complete the remaining fields of the command. See Table 6-2 for the allowed values for each command.

4. Select **Modify** after adding your steps to save the vector on the switch.
- *A window displays asking you to verify that you want to make the change. After you select **y**, **Successful** appears on the status line to indicate that the vector has been added on the switch. If the switch does not accept the vector or a step in the vector, **Failed** appears on the status line, and an error message identifies the problem.*

Copying a Vector

1. Select Vector Contents from the ACD Administration submenu. → *The Vector Contents window appears with the current ACD name or number displayed in the ACD field.*
2. Enter the number or name of the vector you want to copy from in the Vector field, and then select Find one. → *The steps in the vector appear.*

3. Enter the copy-to vector name or number in the Vector field. You can also change the ACD name or number.

If you change the ACD name or number and some vector steps are not valid for the new (changed) switch type, a message displays indicating which steps are in error. If you change the ACD and the switch type for the new ACD supports fewer vector steps, a message asks if you want to lose the additional steps. If you change the ACD and the switch type for the new ACD supports more vector steps, additional vector steps are added automatically.

4. Add or delete any steps desired.
5. Select Modify. → *Successful appears on the status line to indicate that the vector has been copied.*

Modifying a Vector

1. In the Vector Contents window, enter the vector name or number you want to change in the Vector field, and then select Find one. → *The steps of the vector appear.*

Note Do not delete or change the name or number that appears in the ACD field.

- 2a. To **change** a command, move the cursor to the command you want to change, and press **Ctrl** **Y** to erase all characters in the field or **Ctrl** **X** to erase characters from the cursor to the end of the field. → *The data in the field disappears.*

Enter the new command, condition, or value in the field.

The new command overwrites the old command.

Complete, if necessary, any additional fields associated with the new command.

- 2b. To **insert** a command between two existing steps, move the cursor to the second of the two steps, and select Add step. After selecting Add step, type the desired command in the blank. *A blank step appears above the step on which the cursor was resting. The command the cursor was on, and any subsequent commands, move down one step.*
- 2c. To **delete** a command, move the cursor to the step that contains the command, and select Del step. *The command is removed, and any subsequent commands move up one step.*

3. Select Modify.

If the switch accepts the vector, **Successful** appears on the status line. If the switch does not accept the vector or a step in the vector, **Failed** appears on the status line, and an error message identifies the problem.

Note

You cannot insert a command in a vector that already uses all 32 allowable vector steps (or 15 allowable vector steps, for Generic 3 Version 1 and earlier switches).

Deleting a Vector's Contents

1. On a blank Vector Contents window, enter the name or number of the vector for which you want to delete the contents in the `Vector` field.

Note Make sure that the name or number in the `ACD` field is the ACD from which you want to delete the contents of the specified vector.

2. Select `Modify`.

→ *A message asks you if you want to delete the vector's contents.*

3. Enter `y` to delete the vector's contents.

→ *The vector's contents are deleted.*

Note You can also erase all steps in a vector by pressing `Ctrl Z`.

DEFINITY Generic 2 Switches

Introduction

From the ACD Administration subsystem, you can do the following:

- Set an acceptable service level and service level increments which are used to track answered and abandoned calls in the Split/Skill Call Profile reports.
- Start an agent trace and list agents being traced.
- Run a report that lists extensions that are members of a specific split.
- Run a report that lists trunk group members and their equipment locations.
- View trunk group assignments.
- Move extensions between splits.
- Move trunk groups from one split to another.
- Set the delay time for prerecorded announcements.
- Set up intraflow for splits.

If you have the Call Vectoring feature, you also can do the following:

- Define vectors.
- Run a report that lists, by vector, the trunk groups and VDNs that direct calls to vectors.
- Set an acceptable service level and service level increments which are used to track answered and abandoned calls in the VDN Call Profile reports.
- Change VDN-to-vector assignments.
- Change trunk group-to-VDN assignments.
- Run a report that lists, by split, the vectors that queue calls to splits (if you have the Call Vectoring feature, but **not** the EAS feature).

If you have the Expert Agent Selection (EAS) feature purchased and enabled on the Generic 2.2 switch, you can also do the following:

- Change VDN skill preferences.
- Move agent extensions between skill groups (instead of the Move Extensions Between Splits capability available without EAS).

Generic 2 ACD Administration Menus

The items on the ACD Administration menu vary depending on the type of switch *CentreVu* CMS is connected to and the features that are available for and enabled on the switch. All Generic 2 ACD Administration menu items are described in this section.

Note

More than most other subsystems in *CentreVu* CMS, the ACD Administration menus that you see depend on the type of switch that you have and its features.
For example, if the Call Vectoring feature has **not** been purchased and enabled, then menu items with VDN or Vector in their names do **not** appear on the ACD Administration or Configuration Reports menus.
For the Generic 2 switches without the Call Vectoring feature or Generic 2 switches with the EAS feature, the Split References in Vectors menu item does **not** appear on the ACD Administration menu. And for Generic 2 switches with vectoring, the Split Parameters menu item does **not** appear.
For Generic 2.2 switches with EAS, the Change Agent Skills menu item does **not** appear, and “Move Extensions Between Skill Groups” replaces the “Move Extensions Between Splits” item that appears for switches without the EAS feature.

ACD Administration Menu with EAS

Figure 6-39 shows the ACD Administration menu for Generic 2.2 switches with both the Call Vectoring feature and the EAS feature.

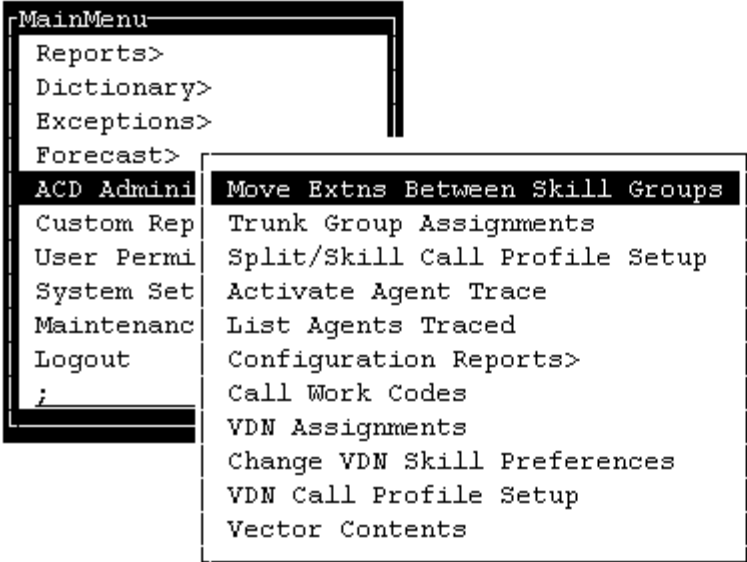


Figure 6-39: ACD Administration Menu—G2.2 Switches with EAS

ACD Administration Menus Without EAS

Figure 6-40 shows the ACD Administration menu for switches with the Call Vectoring feature but **not** the EAS feature.

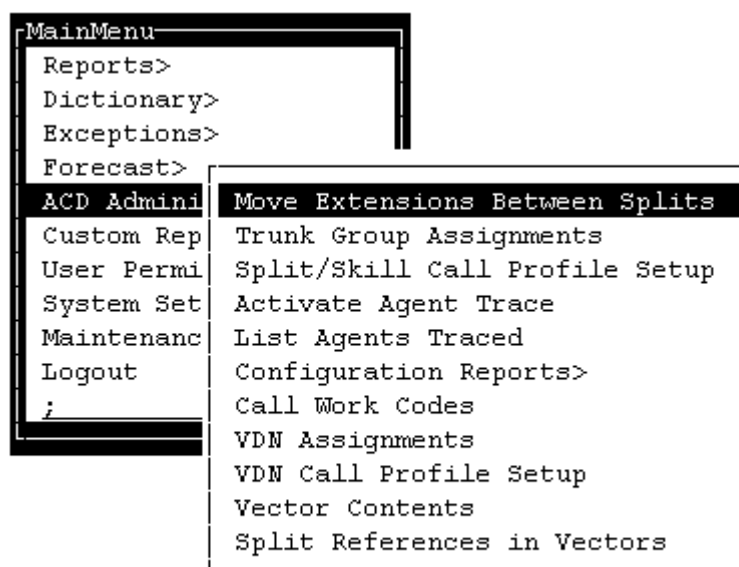


Figure 6-40: ACD Administration Menu—G2 Switches with Vectoring

Figure 6-41 shows the ACD Administration menu for switches without the Call Vectoring feature.

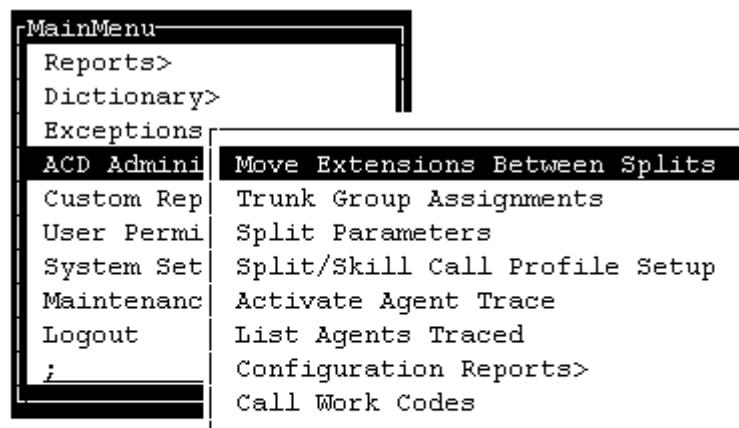


Figure 6-41: ACD Administration Menu—G2 Switches Without Vectoring

Move Extensions Between Skill Groups (Generic 2.2 with EAS)

Note This menu item only appears when the EAS feature has been purchased and enabled for Generic 2.2 switches.

Purpose

Use the Move Extensions Between Skill Groups window to view current extension assignments or to move as many as 1023 extensions between skill groups.

Things to Know Before You Start

- You can move as many as 1023 extensions to a different skill group in a single move.
 - Read Appendix D, “*CentreVu* CMS and the Expert Agent Selection Feature,” for information about EAS.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To move extensions between skill groups, you need **read/write** permission for the ACD Administration subsystem and for all affected skills. See “Feature Access” and “Split/Skill Access” in Chapter 7, “User Permissions” for more information.
 - To view extension assignments, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To enter a Skill name in the `Skill` group field, the name must first be entered in the Dictionary. See Chapter 4, “Dictionary” for more information on administering names for skills.

Timetable

You can place the Move Extensions Between Skill Groups window on a timetable. See Chapter 3, “Timetable and Shortcut” for more information.

Note

When Timetable is used to move extensions between skill groups, information about the status of the move is not saved.

Move Extensions Between Skill Groups Window (G2.2 with EAS)

Use the Move Extensions Between Skill Groups window (Figure 6-42) to view current extension assignments or to move extensions between skill groups.

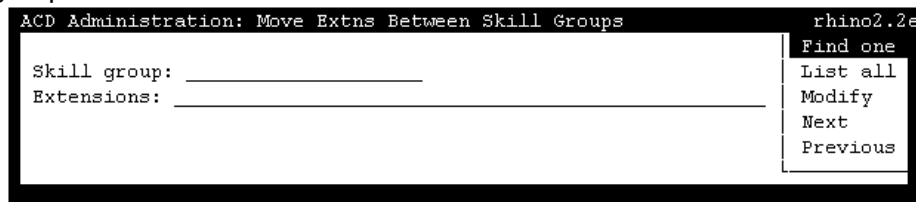


Figure 6-42: Move Extensions Between Skill Groups Window (Generic 2.2 Switches with EAS)

Field/Action List Usage

Modify

Moves the specified extensions to the specified skill group.

If you select **Modify** and the entire move request fails because the link to the switch is down, the information you entered in the input window is not valid, etc., an Acknowledgment window shows the reason for failure.

If the entire move completes successfully, **Successful** appears on the status line. If one or more of the requested moves fail, a secondary status window shows the extensions that were not moved and the reason.

Field Descriptions

Skill group:

Enter the number or name (names must be previously assigned in the Dictionary subsystem) of the skill group to which the extensions currently belong (for searching) or to which you wish to move the extensions.

Note

Skill group numbers **must** end in 0 (zero). Names must correspond to skill group numbers that end in 0 (zero).

Extensions:

Enter lists or ranges of extensions (a total of up to 1023) to be moved.

Status Window

If one or more of the requested moves fail, a secondary status window shows the extensions that were not moved and the reason.

Move Extensions Between Splits (Switches Without EAS)

Purpose

Use the Move Extensions Between Splits window to view current extension assignments or to move extensions between measured splits.

Things to Know Before You Start

- You can move as many as 1023 extensions in a single move.
 - You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** Screen-Labeled Key (SLK).
 - You can move extensions to Split 0. Split 0 is a dummy split typically used for assigning extensions that you do not want in any of your measured splits. In addition, measured extensions that you assign to unmeasured splits are automatically assigned to Split 0 so that you can keep track of them for future reassignments.
 - See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To move extensions between splits, you need **read/write** permission for the ACD Administration subsystem and for all affected splits. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
 - To view extension assignments, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To enter a split name in the `Split` moving from or `Split` moving to field, the name must first be assigned in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for splits.

Timetable

You can place the Move Extensions Between Splits window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Note

When Timetable is used to move extensions between splits, information about the status of the move is not saved.

Move Extensions Between Splits Window (G2 Without EAS)

Use the Move Extensions Between Splits window (Figure 6-43) to view current extension assignments or to move extensions between splits.

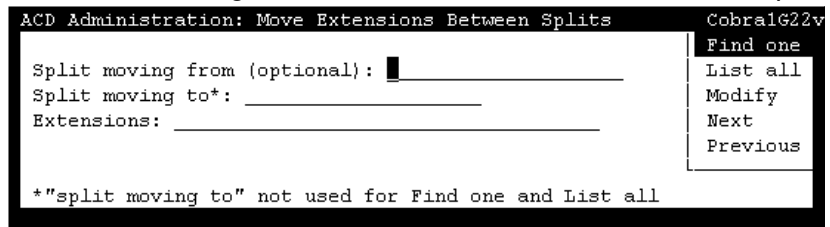


Figure 6-43: Move Extensions Between Splits Window (Generic 2 Switches Without EAS)

Field/Action List Usage

Find one, Next, and Previous

When data are displayed as a result of a Find one, Next, or Previous action, only the current split that the agent is in is displayed in the Split moving from field, and the Split moving to field is blank.

Find one and List all

Find one and List all use only the Split moving from field for the search.

Modify

Moves the specified extensions from their current split (Split moving from) to a different split (Split moving to). An entry is required in all fields for the modify action.

If you select Modify and the entire move request fails because the link to the switch is down, the information you entered in the input window is not valid, etc., an Acknowledgment window shows the reason for failure.

If the entire move completes successfully, Successful appears on the status line. If one or more of the requested moves fail or if moves are pending, a secondary status window shows the extensions that were not moved and the reason, or the pending status.

Field Descriptions

Split moving from (optional):

Enter the split number or name (must be previously assigned in the Dictionary subsystem) from which you are moving extensions. You must enter a value in this field for extensions (agents) that are members of multiple splits.

Split moving to*:

Enter the split number or name (must be previously assigned in the Dictionary subsystem) to which you are moving extensions.

Note

For the Generic 2 switches, to move extensions to Split 0, leave the Split moving to field blank.

Extensions:

Enter the extension number(s) to be moved.

As many as 1023 extensions can be moved at the same time.

Status Window

If one or more of the requested moves fail or if moves are pending, a secondary status window shows the extensions that were not moved and the reason, or it shows the pending status.

Trunk Group Assignments (Generic 2 with Vectoring)

Note

If you have not purchased and enabled the Call Vectoring feature, then this Trunk Group Assignments window is **not** available.

Purpose

Use the Trunk Group Assignments window (Figure 6-44) to view and to change trunk-group-to-VDN assignments.

You assign automatic-in trunk groups to VDNs so that ACD calls arriving on those trunk groups can be linked to vectors. From vectors, the calls are ultimately routed to other destinations—primarily splits.

Note

Do not assign Direct Inward Dialing (DID) trunk groups to VDNs.

Things to Know Before You Start

- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current SLK**.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- Trunk groups must be assigned to VDNs on the switch using a switch administration tool before you can **view** or **change** those assignments from *CentreVu* CMS.
- To change trunk-group-to-VDN assignments, you must have **read/write** permission for the ACD Administration subsystem and for any affected trunk groups or VDNs. See "Feature Access" and "Trunk Group Access" or "VDN Access" in Chapter 7, "User Permissions" for more information.
- To view trunk-group-to-VDN assignments, you must have **read** permission for the ACD Administration subsystem and for any affected trunk groups or VDNs.

Relationships to
Other
Subsystems

Dictionary

To use trunk group names, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information.

Timetable

You can schedule trunk group assignment changes on a timetable. This capability can be particularly useful if you want to make changes during off-hours. See Chapter 3, "Timetable and Shortcut" for more information.

Trunk Group
Assignments
Window (G2 with
Vectoring)

Use the Trunk Group Assignments window (Figure 6-44) to view or change trunk-group-to-VDN assignments for a Generic 2 switch with the Call Vectoring feature.

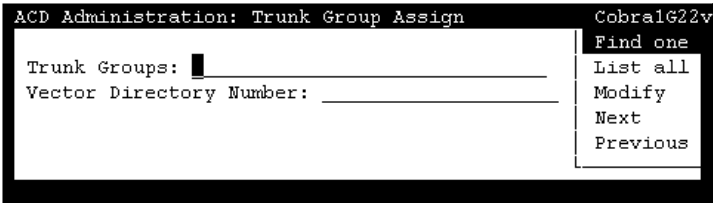


Figure 6-44: Trunk Group Assignments Window (Generic 2 Switches with Vectoring)

Field/Action List
Usage

Modify

To change trunk group-to-VDN assignments, complete **both** the Trunk Groups and Vector Directory Number fields, and select Modify.

List all

Selecting List all with blank input fields displays a list of trunk groups and the VDNs to which they are assigned.

Field Descriptions

Trunk Groups:

Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of the trunk group(s) you want to reassign.

Vector Directory Number:

Enter the number or name (must be previously assigned in the Dictionary subsystem) of the VDN to which you want to assign the specified trunk group(s).

Trunk Group Assignments (Switches Without Vectoring)

Purpose

Use the Trunk Group Assignments window to view trunk group assignments (for all switches) and to move trunk groups from one split to another (for Generic 2 switches without vectoring).

Things to Know Before You Start

- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current SLK**.
 - If you have the Call Vectoring feature, your window looks different. See "Trunk Group Assignments (Generic 2 with Vectoring)" for more information.
 - For Generic 2 switches, Split 0 is a dummy split to be assigned to trunk groups that you do not want to carry calls to any of your measured splits.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To change trunk group assignments, you need **read/write** permission for the ACD Administration subsystem and all affected trunk groups. See "Feature Access" and "Trunk Group Access" in Chapter 7, "User Permissions" for more information.
 - All affected splits and trunk groups must be measured.
 - To view trunk group assignments, you must have **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To use trunk group names, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information.

Timetable

You can place the Trunk Group Assignments window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Trunk Group
Assignments
Window (Without
Vectoring)

Use the Trunk Group Assignments window (Figure 6-45) to view trunk group assignments (all switches) or to move trunk groups from one split to another (Generic 2 switches without vectoring).

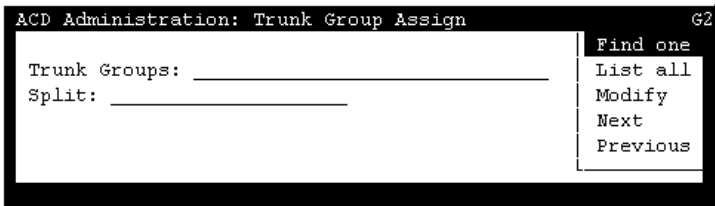


Figure 6-45: Trunk Group Assignments Window (Generic 2 Switches Without Vectoring)

Field/Action List
Usage

Modify

If you select **Modify** and the entire move request fails because the link to the switch is down, the information you entered in the input window is not valid, etc., an Acknowledgment window shows the reason for failure.

If the entire move completes successfully, **Successful** appears on the status line. If one or more of the requested moves fail, a secondary status window shows the trunk groups that were not moved and the reason.

Field Descriptions

Trunk Groups:

Enter the trunk group number(s) or name(s) (must be previously assigned in the Dictionary subsystem) that you are modifying (moving) or searching for. See on-line help for the valid numeric ranges for your particular switch.

Split:

Enter the split number or name (must be previously assigned in the Dictionary subsystem) to which you are moving the trunk group(s). See on-line help for the valid numeric ranges for your particular switch.

Split Parameters (Generic 2 Without Vectoring)

Purpose

Use the Split Parameters window to set the delay time for prerecorded announcements and to set up intraflow for splits for Generic 2 switches that do not have the Call Vectoring feature.

Intraflow is the redirection of ACD calls from a local split to another local split or other local destination. Intraflow helps balance the workload during peak periods by moving calls to splits that are not as busy. You could also send your calls to an *AUDIX*® Split on weekends or after normal working hours to inform callers of your working hours, or ask them to leave a message. You set up intraflow by entering the forwarding destination(s) and the forwarding conditions on the Split Parameters window.

Things to Know Before You Start

- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** SLK.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- Generic 2 switch administration is required to change the Queue Directory and Priority Queue Directory numbers.
 - To change split parameters, you need **read/write** permission for the ACD Administration subsystem and for the split whose parameters you are administering. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
 - You do *not* need **write** permission for the affected split to intraflow calls to that split.
 - To view split parameters, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To use names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information.

Timetable

You can place the Split Parameters window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Split Parameters Window

Use the Split Parameters (Figure 6-46) window to change the delay time for prerecorded announcements and to set up or change intraflow for a Generic 2 switch without the Call Vectoring feature.

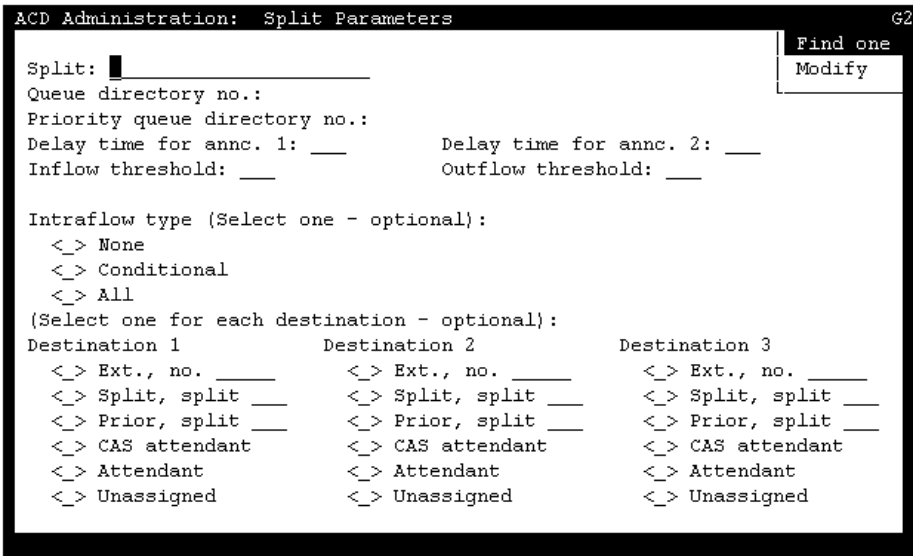


Figure 6-46: Split Parameters Window

Field/Action List Usage

Modify or Find one

If you select Modify or Find one and the link to the switch is down, the information you entered in the input window is not valid, etc., an Acknowledgment window shows the reason for failure.

If the entire Modify completes successfully, Successful appears on the status line. If the Modify fails, a secondary status window shows the fields that were not changed and the reason.

Field Descriptions**Split:** (Required entry)

Enter the split number or name (must be previously assigned in the Dictionary subsystem) you are viewing or modifying.

Queue directory no.: (Display only field)

The main (primary) extension number associated with this split.

Note

Generic 2 switch administration is required for this field.

Priority queue directory no.: (Display only field)

The priority extension number associated with this split. This extension number gives the caller priority in the queue over calls to the main split number.

Note

Generic 2 switch administration is required for an extension number to appear in this field. It is not required to have a priority extension number for this split.

Delay time for annnc. 1:

(Required entry field if the split will have one announcement.)

Enter the number of seconds, in even numbers, that you want a queued caller to wait before hearing the *first* recorded announcement.

Note

Because some announcement equipment plays announcements from the beginning only, the announcement play time plus the specified delay time may pass before the caller hears the announcement. For example, if the announcement lasts 10 seconds and you have specified a 20-second delay time, the caller may wait up to 30 seconds before hearing the announcement.

Delay time for annnc. 2:

(Required entry field if the split will have two announcements.)

Enter the number of seconds in even numbers that you want a queued caller to wait before hearing the *second* recorded announcement. (See the note for the Delay time for annnc. 1 field.)

Inflow threshold: (Valid ranges are 0 through 98)

Enter the total number of queued calls this split can have before the split will no longer accept forwarded calls from other splits into its queue.

- For example, if you specify an inflow threshold of nine, forwarded calls are accepted by this split when the number of calls in queue is nine or less.
- When a destination split has more calls in queue than its inflow threshold value, the ACD tries to forward calls to the next destination specified in the original split's intraflow parameters. See the **Destination 2 or 3** fields for that particular split's specified second or third destination.

Outflow threshold: (Valid ranges are 1 through 99)

Enter the number of calls in *queue* that will trigger call forwarding for this split.

- A split's outflow must always exceed its inflow. For example, if you specify an outflow threshold of ten, the call at the head of the queue is forwarded when the number of calls in queue is ten or greater.
- If you choose `all` as your intraflow type, you do not need to enter an outflow threshold for the split, since all calls are intraflowed regardless of split queue conditions.

Intraflow type (Select only one - optional):

Enter the type of intraflow for this split.

< > none

No calls are forwarded; all calls remain in the queue. If you select none, you do not have to specify a destination.

< > conditional

Calls are forwarded according to outflow thresholds.

Note

If the destination has not been set on the switch, you need to select a destination in this window.

< > all

All calls are forwarded.

This is an unconditional type of intraflow and is most useful at times such as weekends or evenings when no one is staffing the split. If all of a split's calls are intraflowed and you specify more than one destination, the ACD tries to send each call to the first destination checking the inflow threshold, then the second, and finally the third.

(Select one for each destination - optional):**Destination 1, 2, or 3**

Select one of the following for each intraflow destination. You can specify up to three forwarding destinations for each split.

Note

Do not specify an attendant or CAS attendant as the destination of unconditionally (all) intraflowed calls, *except as the last destination*. If the first destination is one of these, calls are always accepted and no calls ever reach the second or third destination. Use extensions for all but the last destination (the first two, if the total is three destinations; the first, if the total is two destinations).

< > split, split

Enter a measured split number or name (must be previously assigned in the Dictionary subsystem) that receives this split's intraflowed calls.

< > ext., no.

Enter a valid extension number in your switch that receives this split's intraflowed calls.

< > prior. split

Enter a measured split number or name (must be previously assigned in the Dictionary subsystem) that has a Priority Queue Directory Number (PQDN) that receives this split's intraflowed calls.

With this selection, intraflowed calls get priority over other calls queued to this split.

< > CAS attendant

Intraflowed calls go to the CAS attendant.

< > attendant

Intraflowed calls go to the attendant.

< > unassigned

No intraflow destination.

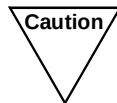
If you specify more than one destination, the ACD first tries to forward each call to Destination 1. If the conditions are not met for a successful forwarding (such as the inflow threshold being exceeded at the destination split), the intraflow software attempts to forward the call to the second destination, and then the third. If no forwarding conditions are met, the call remains queued to the original split.

Split/Skill Call Profile Setup

Purpose

Use the Split/Skill Call Profile Setup window to set a target *acceptable service level* (time limit in seconds) for calls to wait in queue before being answered and also to define the service level increments for split/skill call profile reports and graphs. You can then use the Split/Skill Call Profile reports to see how many calls were either answered or abandoned within each increment.

Things to Know Before You Start



You should turn off data collection to change the parameters in Call Profile Setup. See "Data Collection" in Chapter 8, "System Setup" for more information.

If you change the service level increments while CMS is collecting data, any data collected for the interval in which you made the change will be distorted. *CentreVu* CMS deletes the split/skill call profile data already collected for that interval and keeps only the split/skill call profile data collected in that interval after the change. *CentreVu* CMS then tries to combine the split/skill call profile data gathered both before and after the change into a single daily record of split/skill call profile data. As a result, some data are in the wrong service level increments. Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The increments shown on the report that includes the date on which the change was made will be the larger of the values for each increment before and after the change. For example, if you change from all "0s" to 1, 3, 5, 10, ..., the Split/Skill Call Profile report shows 1, 3, 5, 10, ... If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report shows 1, 5, 7, 10 for the date of the change.

To avoid misleading split/skill call profile data, change the increments early in the day, preferably before agents begin staffing splits/skills and before much data has been gathered. Also change the increments at the beginning of your reporting week and, if possible, the beginning of the month. If the beginning of the week does not coincide with the beginning of the month, you will not be able to avoid some misleading call profile data for the month in which you make the changes.

- You can set each of the first nine service level increments to a different time length. Each increment represents a unit of wait time.
 - If you do not administer this window, zero (0) seconds is used for all service level increments (therefore, all calls appear in the first increment on the Split/Skill Call Profile report).
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To add, delete, or change a split/skill call profile, you need **read/write** permission for the ACD Administration subsystem and for all affected splits/skills. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
 - To view split/skill call profiles, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Dictionary

To use names for splits/skills, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information.

Reports

CentreVu CMS counts the calls that are either answered or abandoned within each increment and then displays the totals on the Split/Skill Call Profile reports and graph reports. Therefore, what you enter here affects what you see on the Split/Skill Call Profile reports (real-time and historical).

Timetable

You can place the Split/Skill Call Profile Setup window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Split/Skill Call Profile Setup Window

Use the Split/Skill Call Profile Setup window (Figure 6-47) to specify an acceptable service level for calls to wait in queue before being answered and to define the service level increments for splits/skills.

ACD Administration: Split/Skill Call Profile Setup

Split(s)/
Skill(s):

Acceptable service level: _____

Service level increments (seconds):

Inc 1	Inc 2	Inc 3	Inc 4	Inc 5
0 to _____	to _____	to _____	to _____	to _____
Inc 6	Inc 7	Inc 8	Inc 9	Inc 10
to _____	to _____	to _____	to _____	And Above

Figure 6-47: Split/Skill Call Profile Setup Window

Field Descriptions

Split(s)/Skill(s):

Enter the split or skill number(s) or name(s) (must be previously assigned in the Dictionary subsystem) you are searching for or modifying.

Acceptable service level: (Required entry)

Enter the number of seconds that is acceptable for an ACD call to wait before connecting to an agent.

Service level increments (seconds): (Required entry)

Enter a progressively greater number of seconds in each “to” field. The seconds before and after each word “to” define an increment in seconds of wait time. For example, “0 to 5 to 10 to 25 ...” means 0-5, 6-10, and 11-25, etc.

Each of the nine increments can vary in length (for example, 0 to 15, 16 to 20, 21 to 26, 27 to 38, 39 to 43, etc.). Each increment represents a progressively longer wait time for the call and is used for both answered and abandoned calls.

Activate Agent Trace

Purpose

Use the Activate Agent Trace window to start or stop *CentreVu* CMS tracing of agent activities, including agent state changes.

Things to Know Before You Start

- You can activate traces for a maximum of 250 agents (if your *CentreVu* CMS server is a *Sun Microsystems* computer) or 100 agents (if your *CentreVu* CMS server is an *Intel*-based computer). This limit applies to the number of agents administered to be traced by one *CentreVu* CMS server across all ACDs. It does not take into account whether or not the agents are logged in.
 - The agent trace file rolls over (the oldest records are discarded as the newest records are written) when the number of records reaches your allocated number (up to a maximum of 500,000 records). You do not have to delete agent trace records. If you want to keep old agent traces, you should print them.
 - To list agents and dates for which there are data in the current trace file, select the List Agents Traced menu option.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- You must have Data Collection turned **on** for the ACD to start/stop agent traces. See "Data Collection" in Chapter 8, "System Setup" for more information.
 - To set the amount of agent trace data to store, see "Data Storage Allocation" in Chapter 8, "System Setup" for more information.
 - To start or stop an agent trace, you need **read/write** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
 - To view agents being traced, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Historical Reports

You must start an agent trace before you can run an Agent Trace report. This report lists each agent activity and the time it occurred. The Agent Trace report can be helpful when evaluating how well individual agents

are using their time. See the “Historical Reports” chapter in the *CentreVu™ CMS R3V5 Real-Time and Historical Reports* (585-215-821) document for more information on the Agent Trace report.

Timetable

You can place the Activate Agent Trace window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Activate Agent Trace Window

Use the Activate Agent Trace window (Figure 6-48) to start or stop *CentreVu* CMS tracing of agent activities.

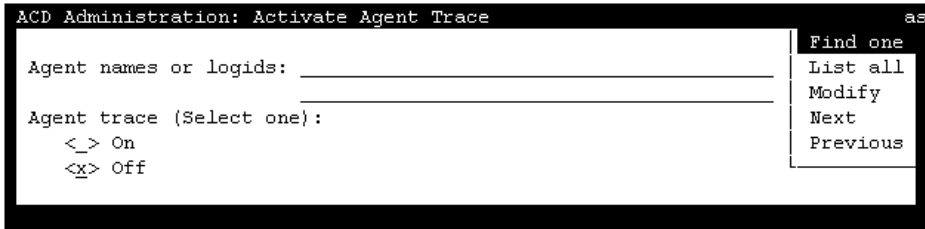


Figure 6-48: Activate Agent Trace Window

Field/Action List Usage

Modify

Use the `Modify` action to start or stop an agent trace. Complete the `Agent names or logids` field to specify the agents for whom a trace will be started or stopped.

List all

If you leave the fields blank, the list includes **all** agents in the ACD and their tracing status.

Field Descriptions

Agent names or logids:

Enter agent login ID(s) or name(s) (must be previously assigned in the Dictionary subsystem).

Agent trace (Select one): (Required entry)

Enter an `x` next to `On` or `Off` to start/stop a trace. `Off` is the default.

Note

Turning an agent trace off does **not** delete the records for that agent. Agent trace records are overwritten automatically when the trace file has filled up.

List Agents Traced

Purpose

Use the List Agents Traced window to list the agents and dates for which agent trace data are available for the current ACD.

Things to Know Before You Start

- You can list all the agents for which data are available for given dates, all the dates for which data are available for given agents, or all the dates and all the agents for which data are available.
 - See Chapter 2, "User Basics" for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- You must have turned **on** agent trace for some agents at some time in the past. See the "Activate Agent Trace" section for more information. Also, at some time in the past, those agents for whom traces were activated must have logged in to produce agent trace records.
 - To view a list of agents traced, you need **read** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Timetable

You can place the List Agents Traced window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

List Agents Traced Window

Use the List Agents Traced window (Figure 6-49) to view a list of agents and dates for which agent trace data are available.

ACD Admin: List Agents Traced

Agent(s): _____

Dates: _____

Successful

Find one
List all
Next
Previous

ACD Admin: List Agents Traced: List All

Printed: 10/16/96 7:21PM

<u>Date</u>	<u>Agent Traced</u>	<u>Login ID</u>
10/16/96	5001	5001
10/16/96	5002	5002
10/16/96	5003	5003
10/16/96	5004	5004
10/16/96	5005	5005

5 matches found; permitted ones displayed

Figure 6-49: List Agents Traced Window

Field/Action List Usage

List all

This action brings up a secondary window listing the dates and agents for which agent trace data are available. This list is displayed by date.

Field Descriptions

Agent(s):

Enter a list of agent login IDs or names (must have been previously assigned in the Dictionary subsystem).



If you leave this field blank, all agents for whom agent trace data are available are displayed.

Dates:

Enter a list or range of dates.



If you leave this field blank, all dates for which agent trace data are available are displayed.

Split Members Configuration (Switches Without EAS)

Purpose

Use the Split Members Configuration Input window to run a report showing extensions that are members of a specific split. This report is helpful for listing your splits and the extensions assigned to those splits.

Things to Know Before You Start

- You cannot create a custom report from the Split Members Configuration report.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To run a Split Members Configuration report, you need **read** permission for the ACD Administration subsystem and for all affected splits. See "Feature Access" and "Split/Skill Access" in Chapter 7, "User Permissions" for more information.
-

Relationships to Other Subsystems

Dictionary

To use names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for splits.

Timetable

You can place the Split Members Configuration Input window and report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Split Members Input Window

Use the Configuration Reports: Split Members Input window (Figure 6-50) to run the Split Members Configuration report.

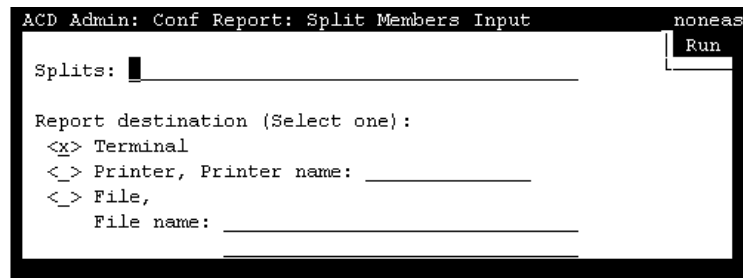


Figure 6-50: Split Members Configuration Input Window

Field/Action List Usage

Run

Select **Run** to generate a report.

Field Descriptions

Splits:

Enter split number(s) or name(s) (must be previously assigned in the Dictionary subsystem). See on-line help for the valid numeric ranges for your particular switch.

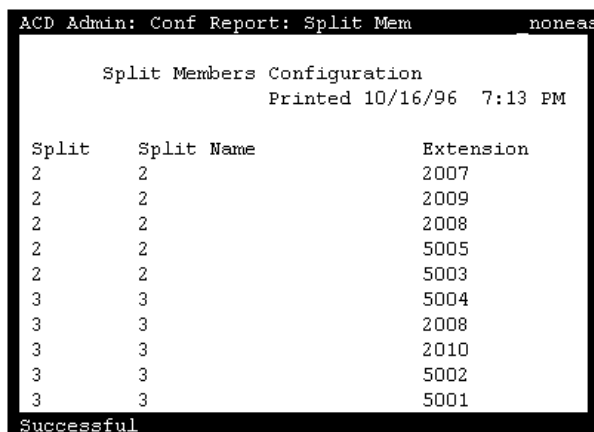
Report destination (Select one):

Enter an **x** next to **Terminal**, **Printer**, or **File**.

- **Terminal** is the default destination.
- If you selected **Printer** and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected **File**, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (*/usr/<your login ID>*) or *Solaris* system (*/export/home/<your login ID>*) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Split Members Configuration Report

The Split Members Configuration report (Figure 6-51) lists the selected splits in numerical order, each split's assigned name, and the extensions that are assigned to the split. If the split does not have a name assigned, the `Split Name` field displays the split number. If the split does not have any extensions assigned to it, the `Extension` field is blank.



```
ACD Admin: Conf Report: Split Mem      noneas
                                     Split Members Configuration
                                     Printed 10/16/96  7:13 PM

Split      Split Name      Extension
2          2              2007
2          2              2009
2          2              2008
2          2              5005
2          2              5003
3          3              5004
3          3              2008
3          3              2010
3          3              5002
3          3              5001
Successful
```

Split	Split Name	Extension
2	2	2007
2	2	2009
2	2	2008
2	2	5005
2	2	5003
3	3	5004
3	3	2008
3	3	2010
3	3	5002
3	3	5001

Figure 6-51: Split Members Configuration Report

Trunk Group Members Configuration

Purpose

Use the Trunk Group Members Configuration Input window to run a report showing trunk group members and their equipment locations for a particular trunk group. This report helps you quickly find a trunk's location.

Things to Know Before You Start

- You cannot create a custom report from the Trunk Group Configuration report.
- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To run this configuration report, you need **read** permission for the ACD Administration subsystem and for all affected trunk groups. See "Feature Access" and "Trunk Group Access" in Chapter 7, "User Permissions" for more information.

Relationships to Other Subsystems

Dictionary

To use names for trunk groups, the names must first be entered in the Dictionary subsystem. See Chapter 4, "Dictionary" for more information on administering names for trunk groups.

Timetable

You can schedule the Trunk Group Members Configuration Input window and report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Trunk Group Members Input Window

Use the Configuration Reports: Trunk Group Members Input window (Figure 6-52) to run the Trunk Group Configuration report.

Figure 6-52: Trunk Group Members Configuration Input Window

Field/Action List Usage

Run

Select **Run** to generate a report.

Field Descriptions

Trunk Groups:

Enter the trunk group number(s) or name(s) (must be previously assigned in the Dictionary subsystem).

- The report displays the trunk group number/name and trunk number within the trunk group.
- See on-line help for the valid numeric ranges for your particular switch.

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (/usr/<your login ID>) or *Solaris* system (/export/home/<your login ID>) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Trunk Group Members Configuration Report

The Trunk Group Members Configuration report (Figure 6-53) lists the selected trunk groups in numerical order, each trunk group's assigned name, and the equipment location of each trunk in the trunk group. If the trunk group does not have a name assigned, the Trunk Group Name field displays the trunk group number. If the trunk group does not have any trunks assigned to it, then the Equipment Location field is blank.

```
ACD Admin: Conf Report: Trunk Group Members      CobraIG22v
```

Trunk Group Members Configuration		
Printed 11/ 4/96 5:08 PM		
Trunk Group	Trunk Group Name	Equipment Location
18	t18 ,.+ 'AbCdEfGh	000000603
18	t18 ,.+ 'AbCdEfGh	000000602
18	t18 ,.+ 'AbCdEfGh	000000700
18	t18 ,.+ 'AbCdEfGh	000000701
18	t18 ,.+ 'AbCdEfGh	000000702
18	t18 ,.+ 'AbCdEfGh	000000502
18	t18 ,.+ 'AbCdEfGh	000000601
18	t18 ,.+ 'AbCdEfGh	000000503
18	t18 ,.+ 'AbCdEfGh	000000600
18	t18 ,.+ 'AbCdEfGh	000000501

```
Successful                                     46x56
```

Figure 6-53: Trunk Group Members Configuration Report

Vector Configuration with Skills (Switches with EAS)



If you have purchased and enabled the EAS feature, this report replaces the Vector Configuration report that is available for switches without EAS.

Purpose

Use the Vector Configuration with Skills input window to run the Vector Configuration with Skills report, which lists the trunk groups and VDNs that are associated with a given set of vectors and the skill preferences assigned to the VDNs.

Things to Know Before You Start

- A vector number may appear in the report even if it does not currently have an associated trunk group. A vector number may also appear even if the vector does not yet contain any steps.
 - You cannot create a custom report from a Vector Configuration report.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

To run a Vector Configuration with Skills report, you must have **read** permission for the ACD Administration subsystem and the vector(s) you want listed in the report. (See "Feature Access" and "Vector Access" in Chapter 7, "User Permissions" for more information.) However, the trunk groups and VDNs carrying calls to the vector(s) are listed even if you do not have read permission for those VDNs and trunk groups.

Relationships to Other Subsystems

Timetable

You can schedule the Vector Configuration with Skills report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Vector Input Window (with EAS)

Use this window (Figure 6-54) to run the Vector Configuration with Skills report.

Figure 6-54: Vector Configuration with Skills Input Window (Generic 2 Switches with EAS)

Field Descriptions

Vectors:

Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of vectors you want to appear in the report. You can enter a list or range of vectors.

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (*/usr/<your login ID>*) or *Solaris* system (*/export/home/<your login ID>*) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Vector
Configuration
with Skills Report

The Vector Configuration with Skills report (Figure 6-55) lists the trunk groups, VDNs, and VDN skill preferences associated with the specified vectors.

ACD Administration: Configuration Report: Vectorsim

Vector Configuration with Skills
Printed 10/20/96 5:29 PM

Trunk Group		VDN		Vector		VDN Skills		
No.	Name	No.	Name	No.	Name	1st Name	2nd Name	3rd Name
18	18	1005	1005	1	1	1	2	3
19	19	1006	1006	2	2	2	3	4
20	20	1007	1007	3	3	3	4	5
21	21	1008	1008	4	4	4	5	1
22	22	1009	1009	5	5	5	1	2

Successful

Figure 6-55: Vector Configuration with Skills Report

Vector Configuration (Switches Without EAS)

Note

If you have not purchased and enabled the Call Vectoring feature, the Vector Configuration window is **not** available.

Purpose

Use the Vector Configuration Input window to run the Vector Configuration report which lists the trunk groups and VDNs associated with the specified vector.

Things to Know Before You Start

- A vector number may appear in the report even if it does not currently have an associated trunk group. A vector number may also appear even if the vector does not yet contain any steps.
 - For Generic 2.2 switches, a “goto vector” step can cause a trunk group and/or VDN to carry calls to a vector to which the carrying VDN has not been assigned. Trunk groups and VDNs that carry calls to a secondary vector this way do not appear in the configuration report for those secondary vectors.
 - You cannot create a custom report from a Vector Configuration report.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To run a Vector Configuration report, you must have **read** permission for the ACD Administration subsystem and the vector(s) you want listed in the report. (See "Feature Access" and "Vector Access" in Chapter 7, "User Permissions" for more information.) However, the trunk groups and VDNs carrying calls to the vector(s) are listed even if you do not have read permission for those VDNs and trunk groups.

Relationships to Other Subsystems

Timetable

You can schedule the Vector Configuration report on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Vector Input Window (Without EAS)

Use the Configuration Reports: Vector Input window (Figure 6-56) to run the Vector Configuration report.

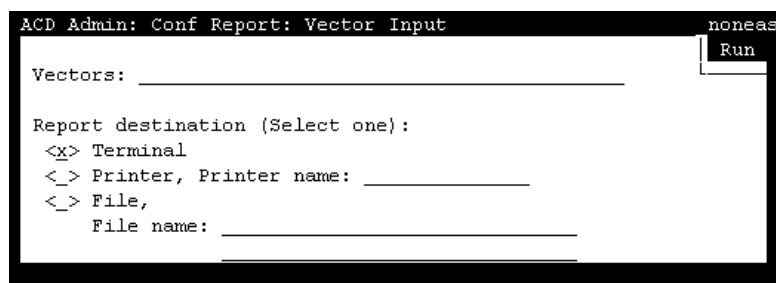


Figure 6-56: Vector Configuration Input Window (Generic 2 Switches Without EAS)

Field Descriptions

Vectors:

Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of one or more vectors for which you want to see the assigned VDNs and trunk groups.

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, type in a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (/usr/<your login ID>) or *Solaris* system (/export/home/<your login ID>) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Vector Configuration Report

The Vector Configuration report (Figure 6-57) lists the specified vectors in numerical order, each vector's assigned VDN(s), and each VDN's assigned trunk group(s). If a VDN has no assigned trunk groups, the Trunk Group and Trunk Group Name fields are blank. If a vector has no assigned VDNs, the VDN and VDN Name fields are also blank.

Although the report lists each vector's VDNs in numerical order, VDNs that have trunk groups assigned are listed first.

ACD Admin: Conf Report: Vector noneas

Vector Configuration Printed 10/16/96 6:55 PM

Trunk Group	Trunk Group Name	VDN	VDN Name	Vector	Vector Name
		2002	2002	2	2
		2003	2003	3	3
		2001	2001	4	4
				1	1
				5	5

Successful

Figure 6-57: Vector Configuration Report

Call Work Codes

Purpose

Use the Call Work Codes window to add, delete, or view the Call Work Codes for which *CentreVu* CMS collects data. A Call Work Code is a number you assign to a particular call type or activity your call center wants to track, for example, a sale item, complaints, repeat orders, promotional ads, or sales made using a credit card. Agents use the dial pad on their voice terminal to enter Call Work Codes. You can then see this data on the Call Work Code and Call Record historical reports.

Things to Know Before You Start

- Call Work Codes must be positive integers with 1 to 16 digits. Codes comprising 1 to 9 digits may be assigned names in the Dictionary subsystem. It is recommended that you specify a fixed number of digits for **all** Call Work Codes. A fixed number of digits makes it easier to add, delete, and search for Call Work Codes.
 - Call Work Code 0 is always assigned and is used to collect information on unadministered Call Work Codes. You cannot delete Call Work Code 0. If an agent enters an unadministered Call Work Code, it shows up as code 0 on the Call Work Code report. If the Invalid Call Work Code exception is assigned, the Agent Exceptions historical report shows agents who entered invalid (unassigned) Call Work Codes.
 - Call Work Codes are assigned to a specific ACD and as many as 1999 Call Work Codes can be assigned per *CentreVu* CMS (for all ACDs). If you try to assign more than 1999 codes, the add operation will fail.
 - To use the standard Call Work Code reports, you must administer the codes using the Call Work Codes window. To use call records to collect call work code data, you do **not** have to use this window to administer the codes.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- Disk space must be allocated for Call Work Code data storage. See "Data Storage Allocation" in Chapter 8, "System Setup" for more information.

- You must also identify and specify where you want to store Call Work Code data. See "Free Space Allocation" in Chapter 8, "System Setup" for more information.
 - To add or delete Call Work Codes, you need **read/write** permission for the ACD Administration subsystem. See "Feature Access" in Chapter 7, "User Permissions" for more information.
 - To view Call Work Codes, you need **read** permission for the ACD Administration subsystem.
-

Relationships to Other Subsystems

Reports

Daily, weekly, and monthly standard historical reports are available for Call Work Codes. Call Work Codes also appear on the standard historical Call Record report. See the Call Work Code Report and Call Record sections of the Historical Reports chapter in the *CentreVu™ CMS R3V5 Real-Time and Historical Reports* (585-215-821) document for more information on these reports.

Dictionary

For a name to appear in the report instead of the numerical code, the name must first be entered in the Dictionary subsystem. Only Call Work Codes comprising 1 to 9 digits can be assigned names. See "Call Work Codes" in Chapter 4, "Dictionary" for more information.

Exceptions

You can administer an exception for agents who enter invalid (unadministered) Call Work Codes. See Chapter 5, "Exceptions" for more information.

Timetable

You can place the Call Work Codes window on a timetable. See Chapter 3, "Timetable and Shortcut" for more information.

Call Work Codes Window

Use the Call Work Codes window (Figure 6-58) to add, delete, or view the Call Work Codes for which *CentreVu* CMS collects data.

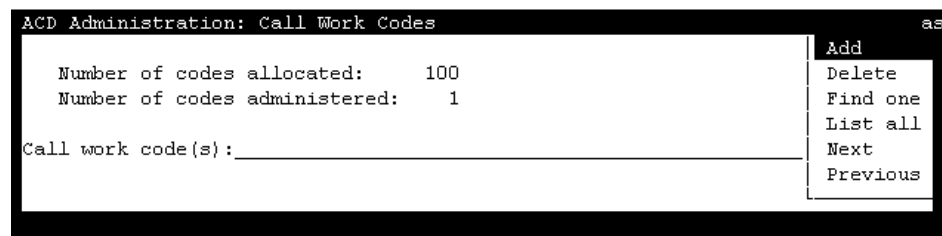


Figure 6-58: Call Work Codes Window

Field Descriptions

Number of codes allocated: (Display only)
This is the total number of Call Work Codes that will be saved in the *CentreVu* CMS database. (This number comes from the "Data Storage Allocation" window in the "System Setup" subsystem.)

Number of codes administered: (Display only)
This is the total number of Call Work Codes currently in use (administered using this window).

Call work code(s):
Enter the Call Work Code(s) you want agents to use.

Note

It is recommended that you specify a fixed number of digits for **all** Call Work Codes. A fixed number of digits makes it easier to add, delete, and search for Call Work Codes.

VDN Assignments

Note

If you have not purchased and enabled the Call Vectoring feature, the VDN Assignments window is **not** available.

Purpose

Use the VDN Assignments window (Figure 6-59) to change VDN-to-vector assignments.

VDNs, which are initially assigned to vectors on the switch, provide a software link to vectors. This link is necessary for ACD calls to enter vector processing.

Things to Know Before You Start

- You can assign multiple VDNs to a single vector. However, you **cannot** assign a VDN to more than one vector.
 - You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current SLK**.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
 - When scheduling VDN moves, you need to group all VDN moves together on one timetable, or schedule them far enough apart so that one move completes before the next one starts.
-

Prerequisite System Administration

- To change VDN assignments, you must have **read/write** permission for the ACD Administration subsystem and for the vector to which you are assigning the VDNs. See "Feature Access" and "Vector Access" in Chapter 7, "User Permissions" for more information.
 - To view VDN assignments, you must have **read** permission for the ACD Administration subsystem and for the vector and VDN(s) you want to view.
-

Relationships to Other Subsystems

Timetable

You can schedule VDN assignment changes on a timetable. This capability can be particularly useful if you want to make assignments during off-hours. See Chapter 3, "Timetable and Shortcut".

VDN
Assignments
Window

Use the VDN Assignments window (Figure 6-59) to view or change the VDN-to-vector assignments.

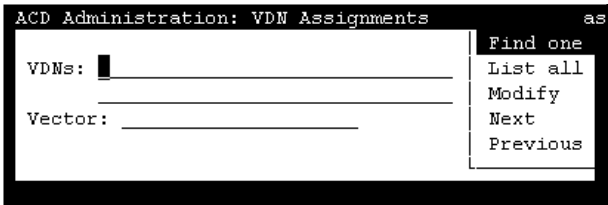


Figure 6-59: VDN Assignments Window

Field/Action List
Usage

Modify

To change VDN assignments, complete the VDNs and Vector fields and select Modify.

List all

Selecting List all with blank input fields displays a list of VDNs and the vectors to which they are assigned. If a VDN is not assigned to a vector, the VDN is shown with a blank Vector in the List All window.

Field Descriptions

VDNs:

Enter the number(s) or name(s) (must be previously assigned in the Dictionary subsystem) of the VDN(s) you want to reassign.

To determine to what vectors all measured VDNs have been assigned, leave the input fields blank and select List all.

Vector:

Enter the number or name (must be previously assigned in the Dictionary subsystem) of the vector to which you want to assign the VDN(s). To determine what vectors the VDNs have been assigned to, leave the input fields blank and select List all.

Change VDN Skill Preferences (Switches with EAS)



If you have not purchased and enabled the Call Vectoring and EAS features, the Change VDN Skill Preferences window is **not** available.

Purpose

Use the Change VDN Skill Preferences window to change the first, second, and third VDN skill preferences for a list of VDNs. You can also list the currently assigned skill preferences for VDNs, or list all the VDNs that currently have the specified skill preference assigned.

Things to Know Before You Start

- To find out which VDNs have a specified skill assigned as their first, second, or third skill preferences, do a **List** all three times, once for each skill preference.
 - When the VDN skill preferences are changed on a Generic 2.2 switch, the new skill preferences take effect for the new calls to the VDN. Any calls currently in progress in the VDN at the time the change is made are processed with the old VDN skill preferences.
 - See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To change the skill preferences assigned to VDNs, you must have **read/write** permission for the ACD Administration subsystem and for the affected VDNs. See "Feature Access" and "VDN Access" in Chapter 7, "User Permissions" for more information.
 - To view current skill preference assignments, you must have **read** permission for the ACD Administration subsystem and for the affected VDNs.
-

Relationships to Other Subsystems

Timetable

You can schedule VDN skill preference changes on a timetable. This capability can be particularly useful if you want to make assignments during off-hours. See Chapter 3, "Timetable and Shortcut" for more information.

Change VDN Skill Preferences Window

Use the Change VDN Skill Preferences window (Figure 6-60) to change the skill preferences for a list of VDNs.

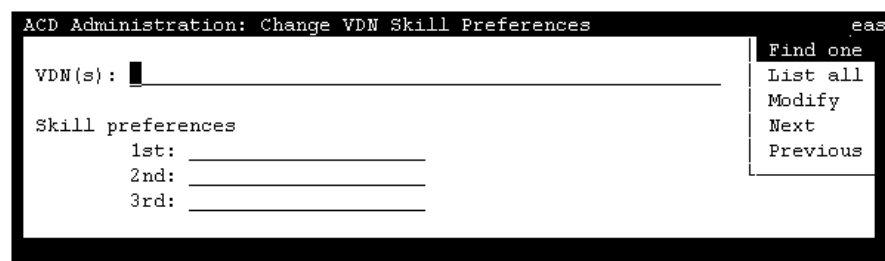


Figure 6-60: Change VDN Skill Preferences Window

Field/Action List Usage

Modify
Selecting **Modify** changes switch administration which affects all new calls on a Generic 2.2 switch.

Field Descriptions

VDNs :
Enter a list or range of VDNs whose skill preferences you want to view or change.

To determine what VDNs you can assign, select **List all** with all blanks in this field

.

Skill preferences 1st, 2nd, 3rd:
Enter the skill preferences to be assigned to the list of VDNs you entered.

The skill preferences are assigned as the first, second, and third VDN skill preferences, respectively.

To list the skill preferences that are currently assigned to VDNs, select **List all** on the Vector Configuration with Skill Preferences input window. See the "Vector Configuration with Skills (Switches with EAS)" section of this chapter.

VDN Call Profile Setup

Note

If you have not purchased and enabled the Call Vectoring feature, the VDN Call Profile Setup window is **not** available.

Purpose

Use the VDN Call Profile Setup window (Figure 6-61) to set up a VDN call profile and to define acceptable service levels (wait time) and service level increments for VDNs.

CentreVu CMS counts the number of calls that are answered or connected to a non-ACD destination, and abandoned within each increment and displays them on the VDN Call Profile reports.

Note

CentreVu CMS stores zeros as default values for the profile increments. That is, *CentreVu* CMS does not collect or store meaningful VDN call profile report data until you administer the increments for a particular VDN. Instead, a call profile report for a VDN adds up all answered and connected calls, and displays the total, as well as the number of abandoned calls, in the first increment of the report.

Things to Know Before You Start

Caution

You should turn off data collection to change the parameters in Call Profile Setup. See "Data Collection" in Chapter 8, "System Setup" for more information.

If you change the service level increments, any data that is collected for the interval in which you made the change will be distorted. *CentreVu* CMS deletes the VDN call profile data already collected for that interval and keeps only the VDN call profile data that was collected in that interval after the change. *CentreVu* CMS then tries to combine the VDN call profile data gathered both before and after the change into a single daily record of VDN call profile data. As a result, some data are placed in the wrong service level increments.

Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The increments shown on the report that includes the date on which the change was made will be the larger of the values for each increment before and after the change. For example, if you change from all "0s" to 1, 3, 5, 10, ..., the VDN Call Profile report shows 1, 3, 5, 10, ... If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report shows 1, 5, 7, 10 for the date of the change.

To avoid misleading VDN call profile data, change the increments early in the day, preferably before agents begin staffing splits/skills and before much data has been gathered. Also change the increments at the beginning of your reporting week and, if possible, the beginning of the month. If the beginning of the week does not coincide with the beginning of the month, you will not be able to avoid some misleading call profile data for the month in which you make the changes.

- You can set each of the first nine service level increments to a different time length. Each increment represents a unit of wait time.
- *CentreVu* CMS always tracks and records call information for each VDN the call reaches until the call is answered, connected to a non-ACD destination, abandoned, or routed to another VDN or off the switch.

Prerequisite System Administration

- To add, delete, or change a VDN call profile, you must have **read/write** permission for the ACD Administration subsystem and for the affected VDNs. See "Feature Access" and "VDN Access" in Chapter 7, "User Permissions" for more information.
- To view a VDN call profile, you must have **read** permission for the ACD Administration subsystem and for the affected VDNs.

Relationships to Other Subsystems

Reports

The service level increments you define for a VDN determine the increments that appear for that VDN on both the real-time and historical VDN Call Profile reports. The acceptable service level that you define for a VDN affects the percentage of calls answered within service level shown on that VDN's Call Profile report.

Timetable

You can schedule VDN Call Profile changes on a timetable.

VDN Call Profile Setup Window

Use the VDN Call Profile Setup window (Figure 6-61) to define the acceptable service level and service level increments for VDNs.

Figure 6-61: VDN Call Profile Setup Window

Field/Action List Usage

Add

To add a VDN call profile, complete all fields and select **Add**.

To copy an existing VDN call profile to a VDN that does not yet have a profile, use **Find one** to display the profile you want to copy; then change the VDN listed in the VDNs field to the desired VDN(s), and select **Add**.

Delete

To delete a VDN call profile, complete only the VDNs field and select **Delete**.

Modify

To modify a VDN call profile, use **Find one** to display a profile; then change the desired fields, and select **Modify**.

Field Descriptions

VDNs :

Enter the VDN number(s) or name(s) (must be previously assigned in the Dictionary subsystem) whose profile you want to add, delete, change, or copy.

To determine what VDNs are assigned to vectors, clear the input fields on the VDN Assignments window and select **List all** from the action list. See "VDN Assignments" in this chapter.

Acceptable service level:

Enter a number of seconds to define the maximum acceptable time for incoming calls to the VDN to wait before connecting to an agent. Calls answered within the service level, abandoned within the service level, and outflowed within the service level are recorded in the CMS database (ACCEPTABLE, SLVLABNS, and SLVLOUTFLOWS, respectively). These items can then be used to calculate call percentages within service level.

The number of seconds can be from 1 to 3600, the maximum number of seconds in an hour-long intrahour interval.

Inc 1

Enter a number of seconds from 1 to 3600 to specify the lowest service level increment.

- The number you enter is the top of the range of seconds.
- *CentreVu* CMS counts calls that are either answered, connected to non-ACD destinations, or abandoned within this range, and it displays the totals on the VDN Call Profile report.

Inc 2 through Inc 9

Enter a number of seconds to define the second through the ninth service level increments.

- The number of seconds you enter for each increment must be at least 1 second greater than the number of seconds of the previous increment. For example, if the number of seconds you entered for previous increment is 25, you must enter at least 26 seconds in the current increment.
- The number you enter forms a range with the number you entered for the previous increment. Though the number you enter is included in the range (and is the top of the range), the number from the previous increment is not included in the range. For example, "0 to 5 to 10 to 25 ..." means 0-5, 6-10, and 11-25, etc. *CentreVu* CMS counts calls that are either answered, connected to a non-ACD destination, or abandoned within each range, and it displays the totals on the VDN Call Profile report.

Vector Contents

Note

This menu item only appears for switches with the Call Vectoring feature. Also, the Vector Contents window is available **only** if the current ACD is a real ACD (that is, it is not a pseudo-ACD).

Purpose

Use the Vector Contents window to add a new vector or to change an existing vector. A vector is an ordered set of call-processing commands called vector steps.

Things to Know Before You Start

- Generic 2 switches support as many as 15 steps in a single vector.
- You cannot exit the Vector Contents window using the **Exit** SLK until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** SLK.
- Each step in a vector is a dynamic field in which you can enter one of a variety of commands and conditions. If you enter the first unique character(s) of a command, *CentreVu* CMS automatically displays command words and additional input fields that you must complete.
- If you have the Expert Agent Selection (EAS) feature, the vector commands refer to *skill* instead of *split*.
- Use the following keys in the Vector Contents window.

↓ or **Tab**

Move the cursor to the next field.

↑ or **Shift Tab**

Move the cursor to the previous field.

→

Move the cursor to the right within a field.

←

Move the cursor to the left within a field.

Back Space

Delete characters in a field.

Ctrl X

Delete characters from the cursor to the end of the field.

Ctrl Y

Delete all characters in the field.

Ctrl Z

Delete all steps in the vector.

- If you leave a blank step in a vector, *CentreVu* CMS automatically replaces the blank with a “goto step” command when you select Modify. The “goto step” command sends vector processing to the next step in the vector.
- You may enter vector commands that reference splits or skills to which you have neither read nor write permission.
- You **cannot** place the Vector Contents window on a timetable.
- For Generic 2.2 with Enhanced ACD features and capacities, you can link one vector with another vector with a “goto vector” command. Linking two vectors creates a virtual vector with more than 15 steps. Yet, as a call moves from one vector to another, the original VDN continues to carry the call and permits accurate reports on specific-purpose call traffic.



The “goto vector” command is not available on Generic 2.2 without Enhanced ACD features and capacities, or on earlier switches.

- For Generic 2 switches, vectors may not contain Call Prompting commands. See Table 6-3.
- For Generic 2.2 switches with the EAS feature, the skill you enter for the *oldest call waiting* condition must end in a zero.

Prerequisite System Administration

- To change a vector's contents, you must have **read/write** permission for the ACD Administration subsystem and for the vector. See “Feature Access” and “Vector Access” in Chapter 7, “User Permissions” for more information.
- To view a vector, you must have **read** permission for the vector.
- To process calls, at least one VDN must be assigned to a vector.
- For Generic 2 switches, the “route to” command requires that an Abbreviated Dial (AD) Group List be assigned to the Call Vectoring feature and that “route to” destinations be specified in the Group List. In addition, if any destinations in the Group List are external to the switch, Automatic Route Selection (ARS) or the Automatic Alternate Routing (AAR) feature must be administered on the switch.
- For Generic 2.2 switches with Enhanced ACD features and capacities, as many as five AD Group Lists may be assigned to the

Call Vectoring feature. If more than one group list is used, the items in the group lists must be numbered as follows:

Group List 1	1 to 95
Group List 2	101 to 195
Group List 3	201 to 295
Group List 4	301 to 395
Group List 5	401 to 495

Note

A controlling extension may be assigned to the AD group list so that destinations in the Group List may be changed from the extension's voice terminal.

- For Generic 2 switches, the “announcement” command requires that announcement numbers be assigned to equipment locations of recorded announcement trunks.

Vector Contents Window (G2)

Use the Vector Contents window (Figure 6-62) to view a vector's contents and to add a new vector or change the steps in an existing vector.

ACD Administration: Vector Contents

ACD: Cobra1G22v

Vector: _____

Step	Actions and Conditions
1	_____
2	_____
3	_____
4	_____
5	_____
6	_____
7	_____
8	_____
9	_____
10	_____
11	_____
12	_____
13	_____
14	_____
15	_____

Cobra1G22v

- Add step
- Del step
- Find one
- Modify

Figure 6-62: Vector Contents Window (Generic 2 Switches)

**Field/Action List
Usage****Modify**

To **add** a vector, **change** the contents of a vector, or **copy** the contents of a vector, you must use **Modify**. See the appropriate procedure ("Adding a New Vector", "Modifying a Vector", or "Copying a Vector") later in this section.

Add step

To **insert** steps between existing steps in a vector, you can place the cursor on a step and select **Add step**. *CentreVu* CMS creates a blank step above the step on which you placed the cursor. You can then enter the command and conditions you want for the new step. However, you must still select **Modify** (see "Modifying a Vector") to save the vector with the steps you inserted.

Del step

To **delete** steps in a vector, you can place the cursor on a step and select **Del step**. *CentreVu* CMS deletes the command for that step and moves any subsequent commands up one step. However, you must still select **Modify** (see "Modifying a Vector") to save the vector without the steps you deleted.

Find one

To **view** a vector's contents, complete the **ACD** and **Vector** fields and select **Find one**.



Your vector does not have to be complete or logical in order to save it. However, if an active VDN is assigned to an incomplete or illogical vector, calls will receive inappropriate treatment.

Field Descriptions**ACD:**

Enter the number or name (must have been previously assigned in the Dictionary subsystem) of the ACD for which you want to define a vector.

The default ACD number or name in this field is the current ACD.

Vector:

Enter the number or name (must have been previously assigned in the Dictionary subsystem) of the vector you want to find, add or change.

Steps 1 through 15

To enter a vector command, move the cursor to the appropriate vector step and type the first unique letter(s) of the command (for example, **g** for the `goto` command). *CentreVu* CMS automatically displays the rest of the command.

Likewise, if the allowed values for an input field are words (for example, **mon**, **tue**), you only have to enter the first unique letter(s) of the word and *CentreVu* CMS automatically displays the rest of the word. This automatic display also applies to the `if` conditions for the `goto` and `check backup` commands.

Note

Automatic display does not work for an input field if `none` is an allowed value (for example, the `disconnect` or the `collect digits` command), or if the allowed values include both numeric and alpha characters.

The input field for a command word contains only the first four letters of the word. These letters are usually underlined. To change a command word:

- Enter the first unique letter(s) of the word.

OR

- Press **Ctrl Y** to delete the four letters in the field, and then type the first unique letter(s) of a different command word.

CentreVu CMS automatically changes the remaining text and any other input fields in the command to match the word you entered. However, you must move the cursor to the remaining fields of the command and also enter the appropriate values.

You may need to press **Tab** or the spacebar in almost all fields.

Table 6-3 lists the available vector commands for Generic 2 switches, and the allowed values for each input field. For a more detailed description of each command, see Appendix C, "Call Vectoring and Related Generic 2 Features".

Table 6-3: Vector Commands—Generic 2

<u>announcement</u> _____ (An announcement number 16-99 [S85/G2.1], 1-255 [G2.2])
<u>busy</u>
<u>disconnect after announcement</u> _____ (Optional: none or an announcement number 16-99 [S85/G2.1], 1-255 [G2.2])
<u>queue-to main split</u> _____ pri ____ (1-60) (low, med, high, top)
EAS only <u>queue-to main skill</u> _____ pri ____ (10-609) (low, med, (1st, 2nd, 3rd high, top) [VDN])
<u>route-to number</u> _____ (An Abbreviated Dial Group List Item number 1-95 [S85/G2.1], or 1-95, 101-195, 201-295, 301-395, or 401-495 [G2.2])
<u>stop</u>
<u>wait-time</u> _____ secs hearing _____ (2-998 [S85/G2.1]) ^a (music, ringback, silence) (0-998 [G2.2]) ^a

a. Even numbers only.

Table 6-3: Vector Commands—Generic 2 (Contd)

<u>check-backup</u> split	_____	pri ____	<u>available-agents</u>	>	_____
	(1-60)	(low, med, high, top)			(0-1023)
			<u>calls-queued</u>	<	_____
					(1-99)
			<u>oldest-call-wait</u>	<	_____
					(1-999)
			<u>staffed-agents</u>	>	_____
					(0-1023)
EAS only					
<u>check-backup</u> skill	_____	pri ____	<u>available-agents</u>	>	_____
	(10-609)	(low, med, high, top)			(0-1023)
	(1st, 2nd, 3rd [VDN])				
			<u>calls-queued</u>	<	_____
					(1-99)
			<u>oldest-call-wait</u> ^a	<	_____
					(1-999)
			<u>staffed-agents</u>	>	_____
					(0-1023)

a. For the oldest-call-wait condition, skill numbers must end with a zero (for example, 10, 20...)

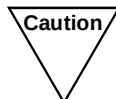
Table 6-3: Vector Commands—Generic 2 (Contd)

<u>goto</u> step	<u> </u>	if	<u>available-agents in split</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	(1-15)			(0-60)	(< or >)	(1-1023) (0-1023)	
			<u>calls-queued in split</u>	<u> </u>	pri <u> </u>	<u> </u>	<u> </u>
				(1-60)	(low, med, high, top)	(< or >)	(1-99) (0-99)
			<u>oldest-call-wait in split</u>	<u> </u>	pri <u> </u>	<u> </u>	<u> </u>
				(1-60)	(low, med, high, top)	(< or >)	(1-999) (0-999)
			<u>staffed-agents in split</u>	<u> </u>	<u> </u>	<u> </u>	
				(0-60)	(< or >)	(1-1023) (0-1023)	
			<u>time-of-day is</u>	<u> </u>	<u> </u> to	<u> </u>	<u> </u>
				(mon, tue, wed, thur, fri, sat, sun, all)	(hh:mm in military time or am/pm)	(mon, tue, wed, thur, fri, sat, sun, all)	(hh:mm in military time or am/pm)
			<u>unconditionally</u>				

EAS only							
<u>goto</u> step	<u> </u>	if	<u>available-agents in skill</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	(1-15)			(10-609) (1st, 2nd, 3rd [VDN])	(< or >)	(1-1023) (0-1023)	
			<u>calls-queued in skill</u>	<u> </u>	pri <u> </u>	<u> </u>	<u> </u>
				(10-609) (1st, 2nd, 3rd [VDN])	(low, med, high, top)	(< or >)	(1-99) (0-99)
			<u>oldest-call-wait in skill</u> ^a	<u> </u>	pri <u> </u>	<u> </u>	<u> </u>
				(10-600) (1st, 2nd, 3rd [VDN])	(low, med, high, top)	(< or >)	(1-999) (0-999)
			<u>staffed-agents in skill</u>	<u> </u>	<u> </u>	<u> </u>	
				(10-609) (1st, 2nd, 3rd [VDN])	(< or >)	(1-1023) (0-1023)	
			<u>time-of-day is</u>	<u> </u>	<u> </u> to	<u> </u>	<u> </u>
				(mon, tue, wed, thur, fri, sat, sun, all)	(hh:mm in military time or am/pm)	(mon, tue, wed, thur, fri, sat, sun, all)	(hh:mm in military time or am/pm)
			<u>unconditionally</u>				

a. For the oldest-call-wait condition, skill numbers must end with a zero (for example, 10, 20...)

Adding a New Vector



You should **always** test your vector by sending test calls to the vector. You can send test calls by dialing a test VDN that is assigned to the vector. A test VDN should not be currently in use for real calls nor referenced (by way of a “route to” command) in a vector that is currently in use. If you do not test your vectors, real incoming calls may receive inappropriate treatment.

1. Select Vector Contents from the ACD Administration submenu. → *The Vector Contents window appears with the current ACD name or number displayed in the ACD field.*
2. Enter the number or name of the vector you want to add in the Vector field. Do a Find one first to ensure you are not overwriting steps that already exist for the vector. → *The steps in the vector appear.*



Do not delete or change the name or number that appears in the ACD field.

3. For each vector step, enter the initial letter(s) of a command, and complete the remaining fields of the command. See Table 6-3 for the allowed values for each command.

4. Select Modify after adding your steps to save the vector on the switch.	→ <i>A window displays asking you to verify that you want to make the change. After you select y, Successful appears on the status line to indicate that the vector has been added on the switch. If the switch does not accept the vector or a step in the vector, Failed appears on the status line, and an error message identifies the problem.</i>
-

Copying a Vector

1. Select Vector Contents from the ACD Administration submenu.	→ <i>The Vector Contents window appears with the current ACD name or number displayed in the ACD field.</i>
2. Enter the number or name of the vector you want to copy from in the Vector field, and then select Find one.	→ <i>The steps in the vector appear.</i>

3. Enter the copy to vector name or number in the `Vector` field. You can also change the ACD name or number.

If you change the ACD name or number and some vector steps are not valid for the new (changed) switch type, a message displays indicating which steps are in error. If you change the ACD and the switch type for the new ACD supports fewer vector steps, a message asks if you want to lose the additional steps. If you change the ACD and the switch type for the new ACD supports more vector steps, additional vector steps are added automatically.

4. Add or delete any steps desired.

5. Select `Modify`.

→ *Successful appears on the status line to indicate that the vector has been copied.*

Modifying a Vector

1. In the Vector Contents window, enter the vector name or number you want to change in the `Vector` field, and then select `Find one`.

Note Do not delete or change the name or number that appears in the `ACD` field.

- 2a.** To **change** a command, move the cursor to the command you want to change, and press **Ctrl** **Y** to erase all characters in the field or **Ctrl** **X** to erase characters from the cursor to the end of the field.
- *The data in the field disappears.*
- Enter the new command, condition, or value in the field.
- The new command overwrites the old command.*
- Complete, if necessary, any additional fields associated with the new command.
- 2b.** To **insert** a command between two existing steps, move the cursor to the second of the two steps, and select **Add step**.
- A blank step appears above the step on which the cursor was resting. The command the cursor was on, and any subsequent commands, move down one step.*
- After selecting **Add step**, type the desired command in the blank.
- 2c.** To **delete** a command, move the cursor to the step that contains the command, and select **Del step**.
- The command is removed, and any subsequent commands move up one step.*
- 3.** Select **Modify**.
- If the switch accepts the vector, **Successful** appears on the status line. If the switch does not accept the vector or a step in the vector, **Failed** appears on the status line, and an error message identifies the problem.

Note You cannot insert a command in a vector that already uses all 15 allowable vector steps.

Deleting a Vector's Contents

1. On a blank Vector Contents window, enter the name or number of the vector for which you want to delete the contents in the `Vector` field.

Note Make sure that the name or number in the `ACD` field is the ACD from which you want to delete the contents of the specified vector.

2. Select `Modify`. → *A message asks you if you want to delete the vector's contents.*
3. Enter `y` to delete the vector's contents. → *The vector's contents are deleted.*

Note You can also erase all steps in a vector by pressing `Ctrl Z`.

Split References in Vectors (Generic 2 Without EAS)

Note

The Split References in Vectors window is available only for the Generic 2 switch with vectoring (but *not* the EAS feature).

Purpose

Use the Split References in Vectors window to display vectors that reference a particular split with “queue to main split” and/or “check backup split” commands.

When used in conjunction with the Vector Configuration window, the Split Reference window can help you determine the source of calls to a split and what treatment those calls receive.

Prerequisite System Administration

- You must have **read** permission for the ACD Administration subsystem and the split whose references you want to display.
- Vectors carrying calls to the split are listed even if you do not have read permission for those vectors.

Split References in Vectors Window (G2 Without EAS)

Use the Split References in Vectors window (Figure 6-63) to display vectors that reference a particular split with the “queue to main split” and/or “check backup split” commands.

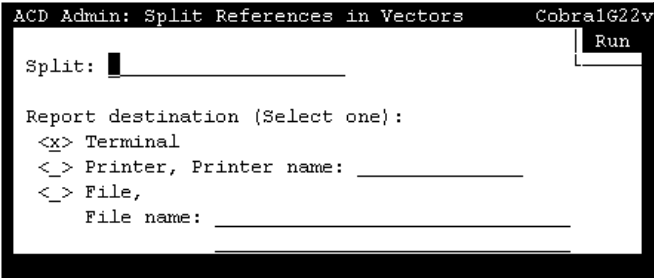


Figure 6-63: Split References in Vectors Window (Generic 2 Without EAS)

Field Descriptions

Split:

Enter the number or name (must be previously assigned in the Dictionary subsystem) of the split whose vector references you want to list.

Report destination (Select one):

Enter an **x** next to Terminal, Printer, or File.

- Terminal is the default destination.
- If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the **x**.
- If you selected File, enter a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system (/usr/<your login ID>) or *Solaris* system (/export/home/<your login ID>) unless you specify a full path name. If the file you specified already exists, the file is overwritten with the new report data.

Split References in Vectors Report

Figure 6-64 shows an example of the Split References in Vectors report.

```
ACD Admin: Split References in Vec      Cobra1G22v
                                     Split References in Vectors
                                     Printed 10/16/96  6:12 PM
Split: s3 ,.+ 'AbCdEfGhIjKl

Vector No.  Vector Name              Main  Backup
2           v2 ,.+ 'AbCdEfGhIjKl      x
2           v2 ,.+ 'AbCdEfGhIjKl      x
3           v3 ,.+ 'AbCdEfGhIjKl      x
4           v4 ,.+ 'AbCdEfGhIjKl      x

Successful
```

Figure 6-64: Split References in Vectors Report

Lucent Technologies
Bell Labs Innovations



***CentreVu*TM Call Management System**
Release 3 Version 5
Administration
Volume 2

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Acknowledgment

This document was prepared by the Customer Training and Information Products group, Lucent Technologies, Denver, CO.

Chapter 7

User Permissions

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General Information

From the User Permissions subsystem, Figure 7-1, the *CentreVu*™ CMS administrator can assign the following:

- *CentreVu* CMS user IDs with their corresponding default printer, maximum number of open user windows, the minimum refresh rate for real-time reports, login ACD, and whether the user is a *normal* user or an *administrator*.
- User access permissions for the *CentreVu* CMS subsystems and certain Screen-Labeled Key (SLK) menu items.
- Split/skill, trunk group, and Automatic Call Distribution (ACD) access permissions.
- Access permissions to Vector Directory Numbers (VDNs) and vectors, if you have purchased the Vectoring feature.

At installation, you are given a *CentreVu* CMS administrator login ID which gives you access to the entire *CentreVu* CMS system, including read and write permissions for all subsystems and ACDs (real and pseudo-ACDs).

Secondary administrators, such as split/skill supervisors, may require access to only a limited number of subsystems, splits/skills, trunk groups, vectors, VDNs, and ACDs and may require only read or write permission for a particular category. For example, if your call center has a split (called Split 1), with two trunk groups (22 and 23) assigned to it, the supervisor of Split 1 could be restricted to read and write access only for Split 1 and Trunk Groups 22 and 23. In addition, the supervisor will probably have read and write permission for several subsystems (such as Dictionary and Exceptions) to administer Split 1 and Trunk Groups 22 and 23 effectively.

Note	Assign only the necessary access permissions to your call center. If a user is to have no access, you do not have to add access permission in the read and write fields, since no access is the <i>CentreVu</i> CMS default. Assigning only necessary access permissions will ensure best performance when working in the User Permissions subsystem.

Terminology

Read Permission	A user can access and view data (for example, read standard reports).
Write Permission	A user can add, modify, or delete data and execute processes.

User Permissions Menu

The User Permissions menu is shown in Figure 7-1.

Note

If you have not purchased the Vectoring feature, the Vector Access and VDN Access selections are not available.

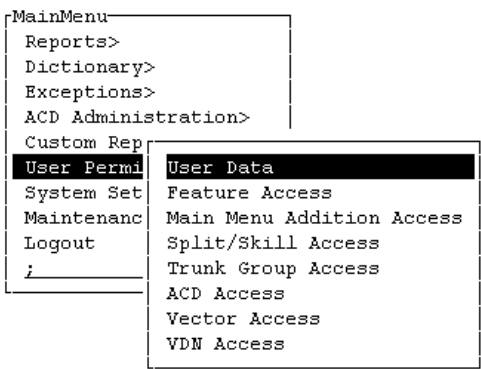


Figure 7-1: User Permissions Menu

User Data

From the User Data window, you assign *CentreVu* CMS user IDs, specify a default printer, specify whether the user is a *normal* user (such as a split/skill supervisor) or an *administrator*. From this window, you also administer the maximum number of open windows, the minimum refresh rate for real-time reports, and the default login ACD for each user.

Things to Know Before You Start

-
- You must enter the user data information into *CentreVu* CMS (in this window) before you can grant feature, split/skill, trunk group, ACD, Vector, or VDN access.
 - Default feature access permissions are assigned according to the type of user (*Normal* or *Administrator*) defined on the User Data window.
 - If you change a user's login type from *Administrator* to *Normal*, or vice versa, after initially setting up the user in *CentreVu* CMS, the user's feature access permissions are not updated. You must change the feature access permissions manually.
 - If you modify the Maximum user window count, Minimum refresh rate, or Login ACD, the changes take effect when the user logs out and logs back in again.
 - Since this window has some default values (number of open windows, refresh rate, and login ACD), you should clear the default values before doing a Find one or List all (unless you want to include these values in the search).

To list all users, press **Ctrl** **Z** to clear all fields, and then select **List all** from the action list.

- The number of windows a user has open directly affects processor resources. Therefore, the more open windows you allow, the more processor resources the user is allowed to consume.
- You **should not** allow users to share the same login ID because this quickly consumes *UNIX*^{*} system/*Solaris*[†] system processes, and the users may not be able to complete required tasks. This also applies to one person logging in at multiple terminals using the same login ID.

^{*}UNIX is a registered trademark of Novell, Inc., in the United States and other countries licensed exclusively through X/Open Company Ltd.

[†]Solaris is a trademark of Sun Microsystems, Inc.

- All user IDs except `cms` and `cmssvc` must have a default printer assigned.
- If a user's login ACD is removed, and the user attempts to log into *CentreVu* CMS, an Acknowledgment window appears telling the user either to contact the *CentreVu* CMS administrator or to change the login ACD.
- If you try to add a login ID for a user that already exists in *CentreVu* CMS, `Already exists` appears on the status line. If the user is neither a *CentreVu* CMS nor a *UNIX* system/*Solaris* System user, *CentreVu* CMS adds the user ID both to *CentreVu* CMS and to the *UNIX* system/*Solaris* system.
- User IDs added via the *UNIX* system/*Solaris* system have a login shell of `/bin/sh` (or whatever was administered). *CentreVu* CMS does not change this. New user IDs added to *CentreVu* CMS and the *UNIX* system/*Solaris* system via *CentreVu* CMS have `cms` as the login shell.
- Users added through *UNIX* will be at the *UNIX* prompt when they log in and will have to enter `cms` in order to run the CMS application. Users added through CMS will automatically be in the CMS application at login time.
- User IDs cannot contain certain diacritical, accented, or special characters (for example, `á`, `ñ`, `ç`, `|`, `©`). Only the following characters are allowed in Login IDs:

!	"	#	\$	&	'	(	)	*	+	,	-	.	/	0	1
2	3	4	5	6	7	8	9	:	;	<	=	>	?	@	A
B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
R	S	T	U	V	W	X	Y	Z	[	\	]	^	_	'	a
b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q
r	s	t	u	v	w	x	y	z	{		}	~			

If you attempt to create a login ID with a forbidden character, an error message will appear.

- `Delete` removes the user login ID and user permissions from *CentreVu* CMS **and**, if the *UNIX* system/*Solaris* system ID was added via *CentreVu* CMS, from the *UNIX* system/*Solaris* System as well. If the user had a *UNIX* system/*Solaris* system login ID prior to the *CentreVu* CMS login ID, that *UNIX* system/*Solaris* system login ID is not removed.
- If you delete a user who has custom reports, timetables, or designer reports, an Acknowledgment displays that asks if you want to move the

deleted user's custom reports/timetables into your login. You do not have to save the deleted user's custom reports, timetables, or designer reports. If you do and there is a conflict between your timetable or custom report names and the deleted user's names (for example, two timetables have the same name), you are asked to rename the deleted user's timetable or custom report.

- If you delete a user on a scheduled timetable:
 - The timetable fails if you have not moved or removed the timetables or custom reports owned by the deleted user.
 - And the user was added via *CentreVu* CMS, all other files (other than timetables and custom reports), owned by the deleted user are removed unless you have previously moved the files to another directory or removed them yourself.
- An Acknowledgment appears if you add or modify the Login ACD field for this user and this user does not have access to the new or changed Login ACD. See the User Data Window in this chapter.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You need **write** permission for the User Permissions subsystem to make any changes to the User Data window.
 - Before assigning the default printer name in this window, you must administer the printer to identify it as a *CentreVu* CMS printer. See Chapter 9, “Maintenance—Printer Administration.”
-

Relationships to Other Subsystems

Real-Time Reports

Real-time reports can be refreshed or updated from every 3 to every 600 seconds. Before a *CentreVu* CMS user can display a real-time report, you must administer a minimum refresh rate for the user. The default minimum refresh rate in the real-time report input windows is 15 seconds greater than the number of seconds administered as the minimum refresh rate in the User Permissions subsystem.

When selecting the refresh rate for a real-time report, the amount of processing scheduled for the computer must be considered.

Timetable

The User Data window can be placed on a timetable. See Chapter 3, “Timetable and Shortcut.”

UNIX System/Solaris System

A new user may have an existing *UNIX* system/*Solaris* System login ID. This is **not** required. If none exists, *CentreVu* CMS automatically creates one when you add the user.

User Data Window

To assign user data information, you must complete the User Data window, Figure 7-2. See Table 7-1 for descriptions of the fields on the User Data window.

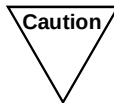
The screenshot shows a window titled "User Permissions: User Data". On the right side of the window is a menu titled "ALL ACDs" with the following options: Add, Delete, Find one, List all, Modify, Next, and Previous. The main area of the window contains the following fields and options:

- User ID: _____
- User name: _____
- Room number: _____
- Telephone number: _____
- Default printer name: _____
- Login type (select only one) :
 - <x> Normal user
 - <_> Administrator
- Maximum user window count (1-12): 4
- Minimum refresh rate (seconds): 30
- Login ACD: 1

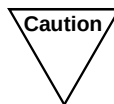
Figure 7-2: User Data Window

Table 7-1: User Data Field Descriptions

Field	Description
User ID:	Enter the login ID for the user you are adding, modifying, viewing, or deleting. The User ID must have three to eight lowercase, alphanumeric characters, with no blanks (no special characters are allowed).
User name: (Optional)	Enter the name of the user.
Room number: (Optional)	Enter the user's room number.
Telephone number: (Optional)	Enter the user's telephone number.
Default printer name: (Required)	Enter the user's default printer name. All <i>CentreVu</i> CMS user IDs except <code>cms</code> and <code>cmssvc</code> user IDs must have a printer assigned. The default printer must have been previously administered in the <i>UNIX</i> system/<i>Solaris</i> system and in CMS (Maintenance - Printer Administration). Also, users can change their default printers at any time by selecting "Options" from the Commands screen-labeled key (SLK) menu. If a user does this, the change automatically displays in this window the next time you display the User Data window for that user. To modify your default printer, see Chapter 2, "User Basics—Modifying Your Default Printer."
Login type (select only one):	Normal user Enter an x if the <i>CentreVu</i> CMS user will not have access (by default) to the System Setup, User Permissions, and Forecast (if purchased) subsystems. Administrator Enter an x if the <i>CentreVu</i> CMS user will have access (by default) to all parts of <i>CentreVu</i> CMS.
Maximum user window count (1-12):	Enter the maximum number of open windows this user can have. The default value is 4.

 The more open windows you allow, the more processor resources this user is allowed to consume.

Minimum refresh rate (seconds):	Enter the minimum update rate for real-time reports. The default is 30 seconds. You can enter a refresh rate from every 3 seconds to every 600 seconds.

 Faster refresh rates consume more processor resources.

Login ACD:	Enter the ACD name or number for this user's current ACD each time this user logs into <i>CentreVu</i> CMS. The default value is 1. Users may change their <i>current</i> ACD any time during a login session by selecting “Options” and then “Current ACD” from the Commands SLK menu. However, when the user logs out and then logs back in, the <i>current</i> ACD defaults back to what is entered in this window. See Chapter 2, “User Basics—Selecting the Current ACD.”

Feature Access

From the Feature Access window, you will assign, view, or modify user access permissions for the *CentreVu* CMS subsystems (for example, Reports, Dictionary, Exceptions) and certain SLK menu items (such as *UNIX* system/*Solaris* system, Timetable). The access permissions you give any user affect what that user is able to do with *CentreVu* CMS.

Things to Know Before You Start

- You cannot change or delete feature access permissions for `cms` and `cmssvc` login IDs. This prevents a user with access to the user permissions subsystem from mistakenly turning off access permissions to all or any part of *CentreVu* CMS for the *CentreVu* CMS administrator and/or the Lucent Services organization.

You can create other administrator login IDs and modify the permissions for those login IDs at any time.

- If you modify the **read** or **write** permission for Feature Access, the change does not take effect until the user logs out and logs back in, reopens a window in which the permissions are checked, or changes subsystems through the MainMenu.
- Default feature access permissions are assigned when a user login ID is added. *CentreVu* CMS administrator login IDs have defaults of **y** for yes, for all features, and normal *CentreVu* CMS users have defaults of **y** for yes, for all features except User Permissions, System Setup, and Forecast.
- If you give a user write access to the User Permissions subsystem, that user is then able to change access permissions for anyone at any time. Normally, split/skill supervisors do not need write access to User Permissions, Maintenance, or the *UNIX* system/*Solaris* system. However, you can give users any access permissions you deem necessary or desirable.
- When a user has neither read nor write permission for a subsystem or an SLK menu item, that subsystem or SLK menu item is not listed in that user's menu options.
- Shortcut does not require read or write permission. See the Shortcut section in Chapter 3, "Timetable and Shortcut."
- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Before you can grant feature access permissions for any user, you must enter an ID for the user into *CentreVu* CMS. See the window in this chapter.
 - You need **write** permission for the User Permissions subsystem to make any type of change to the Feature Access window.
-

Relationships to Other Subsystems

Timetable

The Feature Access window can be placed on a timetable. See Chapter 3, “Timetable and Shortcut.”

Feature Access Window

To modify Feature Access permissions for a user, you must complete the Feature Access window, Figure 7-3. See Table 7-2 for descriptions of the fields on the Feature Access window.

Read	Write	Feature
-	-	ACD Administration
-	-	Custom Reports
-	-	Dictionary
-	-	Exceptions
-	-	Forecast
-	-	Maintenance
-	-	Reports
-	-	System Setup
-	-	Timetable
-	-	User Permissions
-	-	UNIX (r) System

Figure 7-3: Feature Access Window

Table 7-2: Feature Access Field Descriptions

Field	Description
User IDs:	Enter the ID(s) of the user whose feature access permissions you want to modify or view.
Read (Defaults shown are for a "normal" user type.)	If the user entered in the User IDs: field will have read permission for the features listed in the Features: field, enter a y for yes. If this user will <i>not</i> have read permission, enter an n for no.
Write (Defaults shown are for a "normal" user type.)	If the user entered in the User IDs: field will have write permission for the features listed in the Features: field, enter a y for yes. If this user will <i>not</i> have write permission, enter an n for no. If you assign a user write permission you must also assign the user read permission.
Feature (Display only)	The names of the features that the user(s) listed in the User IDs field will or will not be able to access.

MainMenu Addition Access

From the MainMenu Addition Access window, you assign, view, or modify user access permissions for the additional menu items of your choosing. For example, these items could provide access to your local electronic mail environment or daily news articles about your call center for agents or split/skill supervisors.

Things to Know Before You Start

- If the assigned access permission is **no**, this MainMenu item does not appear on the user's MainMenu.
- If you modify the MainMenu Addition access, the change takes effect when the user logs out and logs back in again.
- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Before you can grant main menu addition access permissions for a user, the user must be assigned a user ID. See the User Data Window in this chapter.
- You need **write** permission for the User Permissions subsystem to make any type of change to the MainMenu Additions Access window.
- You must first add the menu additions before you can grant permissions to them. See Chapter 8, "System Setup—MainMenu Addition."

Relationships to Other Subsystems

Timetable

The MainMenu Addition Access window can be placed on a timetable. See Chapter 3, "Timetable and Shortcut."

MainMenu Addition Access Window

To assign main menu addition access permissions for a user, you must complete the MainMenu Addition Access window, Figure 7-4. See Table 7-3 for descriptions of the fields on the MainMenu Addition Access window.

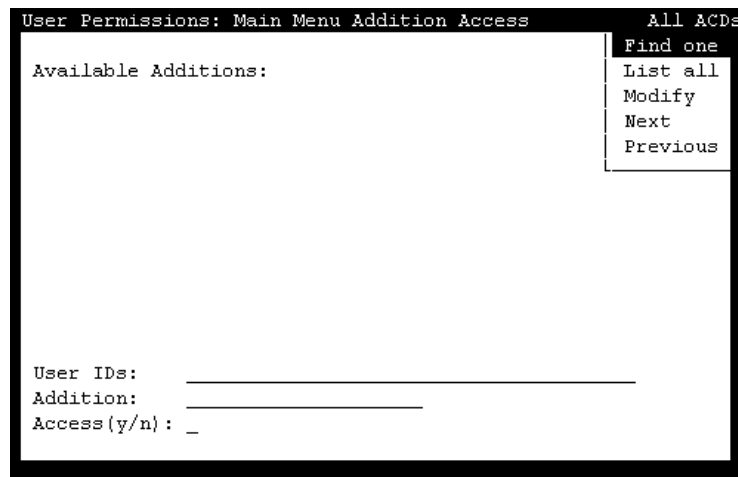


Figure 7-4: MainMenu Addition Access Window

Table 7-3: MainMenu Addition Access Field Descriptions

Field	Description
Available Additions: (Display only field)	Displays the available MainMenu additions.
User IDs:	Enter the ID(s) of the user whose access permissions you want to modify or view.
Addition:	Enter the name of the menu additions that the user(s) listed in the User IDs: field will or will not be able to access. The name entered in the field must match the menu addition name exactly.
Access (y/n):	Enter a y for yes, or n for no, if this user will or will not have access to the items listed in the Addition: field.

Split/Skill Access

From the Split/Skill Access window you assign, view, modify, or delete a user's access permissions to specific splits/skills. You define split/skill access permissions to determine a *CentreVu* CMS user's ability to access report/administration data for a particular split or skill. You will also turn on or off the exceptions notification for splits/skills in this window.

Things to Know Before You Start

-
- When you change a user's access permissions, the change does not take effect until the user logs out and logs back in, reopens a window in which the permissions are checked, or changes subsystems through the MainMenu.
 - You receive an Acknowledgment if you try to change access permissions for a user who does not have the correct ACD access permissions.
 - For each split/skill, you can give users read and write permission, read-only permission, or no permission.
 - **Find one** or **List all** will only list users for whom permission records have been stored.
 - You cannot assign a user **write** permission *without* **read** permission.
 - You cannot use the * or ? for searching in any field.
 - The *CentreVu* CMS default permissions for all splits/skills is **no read** and **no write** permission. However, *CentreVu* CMS does not actually store records of split/skills access permissions until you enter permissions on the Split/Skill Access window. This way of storing permissions saves disk space.

In addition, if you want to turn off a user's access permissions to a split/skill, you can simply delete that user's permissions for that split or skill instead of entering **n** in the **read** and **write** fields. Then the *CentreVu* CMS default of **no** permissions is in effect again for that user for that split or skill.

Assigning only necessary access permissions will ensure best performance when working in the User Permissions subsystem.

- Users are only notified of exception conditions for splits/skills for which their Exceptions permission is set to "y". See Chapter 5, "Exceptions."

- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Before you can grant split/skill access permissions for any user you must give the user a *CentreVu* CMS user ID. See the window in this chapter.
- All *CentreVu* CMS users are assigned access permission for all ACDs upon initial installation, as a result of the default value being **y** for yes for all ACDs. If the permission for an ACD is changed to **n** for no, and an attempt is made to modify the split/skill access for the same ACD, an acknowledgment will appear.

Note

You receive an Acknowledgment when you make a change when the user does not have ACD access for the split(s)/skill(s). Any change you make is recorded, but has no immediate effect until the user's ACD access permissions are changed.

- You need **write** permission for the User Permissions subsystem to make any type of change to the Split/Skill Access window.

Relationships to Other Subsystems

Timetable

The Split/Skill Access window can be placed on a timetable. See Chapter 3, “Timetable and Shortcut.”

Split/Skill Access Window

To assign, modify, delete, or view split/skill access permissions for a user, you must complete the Split/Skill Access window, Figure 7-5. See Table 7-4 for descriptions of the fields on the Split/Skill Access window.



Figure 7-5: Split/Skill Access Window

Table 7-4: Split/Skill Access Field Descriptions

Field	Descriptions
User ID:	Enter the ID of the user whose split/skill access permissions you want to add, delete, modify, or view.
Splits/Skills:	Enter the split/skill name(s) or number(s) that this user will be able to access.
Read (y/n):	Enter y for yes, if this user <i>will</i> have read permission for the split(s)/skill(s), or enter n for no, if this user will <i>not</i> have read permission for the split(s)/skill(s).
Write (y/n):	Enter y for yes, if this user will have write permission for the split(s)/skill(s), or enter n for no, if this user will <i>not</i> have write permission for the split(s)/skill(s). If you assign a user write permission, you must also assign this user read permission.
Exceptions (y/n):	Enter y for yes, if this user will receive split/skill exceptions for the given split(s)/skills(s), or enter n for no, if this user will not receive an exception notification. The notification is either a sound or a screen flash when an exception occurs. You will also see entries in the real-time exceptions log and an exception count on the title bar. You select the exceptions notification (audio or screen flash) from the Commands SLK. See Chapter 5, "Exceptions—Selecting Your Exception Notification."

Trunk Group Access

From the Trunk Group Access window you assign, view, modify, or delete a user's access permissions to specific trunk groups. Trunk group access permissions determine a *CentreVu* CMS user's ability to access and administer data for a particular trunk group. You will also turn on or off the exceptions notification for trunk groups in this window.

Things to Know Before You Start

-
- If you change a user's access permissions, the change does not take effect until the user logs out and logs back in, reopens a window in which the permissions are checked, or changes subsystems through the MainMenu.
 - You receive a warning if you try to change access permissions for a user who does not have access permission for the current ACD.
 - **Find one** and **List all** display only the user IDs with trunk group access permissions previously saved.
 - For each trunk group, you can give users read and write permission, read-only permission, or no permission.
 - You cannot assign a user **write** permission *without* **read** permission.
 - You cannot use the * or ? for searching in any field.
 - The *CentreVu* CMS default permissions for all trunk groups are **no read** and **no write** permission. However, *CentreVu* CMS does not actually store records of trunk group access permissions until you enter permissions on the Trunk Group Access window. This way of storing permissions saves disk space.

In addition, if you want to turn off a user's access permissions to a trunk group, you can simply delete that user's permissions for that trunk group instead of entering **no** in the **Read** and **Write** fields. Then, the *CentreVu* CMS default of **no** permissions is in effect again for that user for that trunk group.

- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Before you can grant trunk group access permissions for any user you must give the user a *CentreVu* CMS user ID. See the User Data window in this chapter.
- You should have already assigned access permission for the correct ACD. See ACD Access later in this chapter.

Note

If you have not done this, an Acknowledgment indicates the user does not have ACD access for the trunk group(s). Any change you make is recorded, but does not have any immediate effect until the user's ACD access permissions are changed.

- You need **write** permission for the User Permissions subsystem to make any type of change to the Trunk Group Access window.
- Exceptions permission controls whether the user is notified of the group exceptions for the given trunk group. See Chapter 5, "Exceptions."

Relationships to Other Subsystems

Timetable

The Trunk Group Access window can be placed on a timetable. See Chapter 3, "Timetable and Shortcut."

Trunk Group Access Window

To assign trunk group access permissions for a user, you must complete the Trunk Group Access window, Figure 7-6. See Table 7-5 for descriptions of the fields on the Trunk Group Access window.

The screenshot shows a terminal-style window titled "User Permissions: Trunk Group Access" with a username "G3V5_eas" in the top right. The main area contains five input fields: "User ID:", "Trunk Groups:", "Read (y/n) : _", "Write (y/n): _", and "Exceptions (y/n): _". To the right of these fields is a vertical menu with the following options: "Add", "Delete", "Find one", "List all", "Modify", "Next", and "Previous".

Figure 7-6: Trunk Group Access Window

Table 7-5: Trunk Group Access Field Descriptions

Field	Description
User ID:	Enter the ID of the user whose trunk group permissions you want to add, delete, modify, or view.
Trunk Groups:	Enter the trunk group name(s) or number(s) that this user will access.
Read (y/n):	Enter y for yes, if this user <i>will</i> have read permission for the trunk group(s), or n for no, if this user will <i>not</i> have read permission for the trunk group(s).
Write (y/n):	Enter y for yes, if this user will have write permission for the trunk group(s), or n for no, if this user will <i>not</i> have write permission for the trunk group(s). If you assign write permission, you must also assign this user read permission.

Table 7-5: Trunk Group Access Field Descriptions (Contd)

Field	Description
Exceptions (y/n):	Enter y for yes, if this user will receive trunk group exception notification, or n for no, if this user will not receive an exception notification for the trunk group(s). The notification is either an audio (beep) sound or a screen flash when an exception occurs. You also have entries in the real-time exceptions log and an exception count on the title bar. You select the exceptions notification (audio or screen flash) from the Commands SLK. See Chapter 5, “Exceptions—Selecting Your Exception Notification.”

ACD Access

From the ACD Access window you assign, view, delete, and modify a user's ability to access real or pseudo ACDs. This could be for one or several ACDs. You will also turn on or off the exceptions notification for ACDs in this window.

Things to Know Before You Start

- The default permission for ACD Access is **yes**; all users have access to all ACDs (real or pseudo).
If you want to turn off a user's access permissions to an ACD (real or pseudo), you can simply delete that user's permissions for ACD instead of entering **no** in the **Read** and **Write** fields to save disk space. Then, the *CentreVu* CMS default of **no** permissions is in effect for that user for that ACD.
- If you change a user's access permissions, the change does not take effect until the user logs out and logs back in, reopens a window in which the permissions are checked, or changes subsystems through the MainMenu.
- For each ACD, you can give users read and write permission, read without write permission, or no permission.
- You cannot assign a user **write** permission *without* **read** permission.
- You cannot use the * or ? for searching in any field.
- If you turn the ACD read/write access permission off for any user, then read/write access permission for all splits/skills, trunk groups, vectors and VDNs (if you have the Vectoring feature) in that ACD is overridden by the ACD's permission.
- If you try to modify access permissions for a split/skill, trunk group, vector, or VDN, when the user has no access permission for the ACD, an Acknowledgment is displayed that indicates the user does not have ACD access, and the change does not immediately affect this user's ACD access permissions.
- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite
System
Administration

- Before you can grant ACD access permissions for any user, you must give the user a *CentreVu* CMS user ID. See the User Data window in this chapter.
- If you remove a user's access to his or her login ACD, you must change the user's login ACD. See the User Data window in this chapter.
- Users will only be notified of exceptions occurring for ACDs for which the user's Exceptions permission=**y**. See Chapter 5, "Exceptions".
- You need **write** permission for the User Permissions subsystem to make any type of change to the ACD Access window.

Relationships
to Other
Subsystems

Timetable
The window can be placed on a timetable. See Chapter 3, "Timetable and Shortcut."

ACD Access
Window

To assign ACD access permissions, you must complete the ACD Access window, Figure 7-7. See Table 7-6 for descriptions of the fields on the ACD Access window.

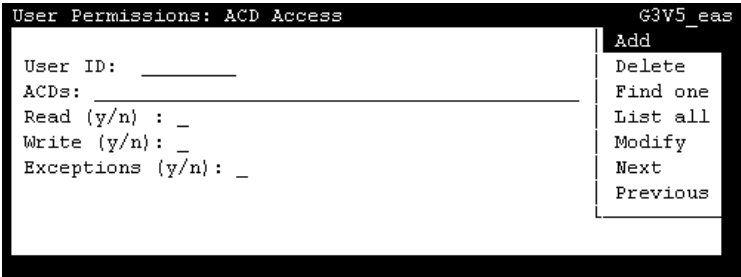


Figure 7-7: ACD Access Window

Table 7-6: ACD Access Field Descriptions

Field	Description
User ID:	Enter the ID of the user whose ACD access permissions you want to add, modify, or view.
ACDs:	Enter the ACD name(s) or number(s) that this user will be able to access (real or pseudo).
Read (y/n):	Enter y for yes, if this user <i>will</i> have read permission for the ACD(s), or enter n for no, if this user will <i>not</i> have read permission for the ACD(s).
Write (y/n):	Enter y for yes, if this user <i>will</i> have write permission for the ACD(s), or enter n for no, if this user will <i>not</i> have write permission for the ACD(s). If you assign write permission, you must also assign this user read permission.
Exceptions (y/n):	For exceptions in the ACD(s), enter y for yes, if this user will receive exception notifications, or enter n for no, if this user will not receive exception notifications. The notification is either an audio (beep) sound or a screen flash when an exception occurs. You also see entries in the Real-Time Exceptions log and an exception count on the title bar. You select the exceptions notification (audio or screen flash) from the Commands SLK. See Chapter 5, “Exceptions—Selecting Your Exception Notification”.

Vector Access

Note Vector access is available only if you have the Vectoring feature.

You define vector access permissions for users to determine a user's ability to administer vectors and to access report/administration data for vectors.

Use the Vector Access window, Figure 7-8, to assign, view, modify, or delete a *CentreVu* CMS user's access permissions to specific vectors.

Things to Know Before You Start

- For any particular vector, you can give a user either read permission, read and write permission, or no permission.
- You *cannot* assign a user **write** permission without also assigning a user **read** permission.
- *CentreVu* CMS activates any changes you make to a user's vector permissions the next time the user opens a window or runs a report involving vectors.
- To change a user's access permissions, complete the `User ID` and `Vectors` fields, and any of the remaining fields and then select `Modify`.
- The *CentreVu* CMS default permissions for all vectors is **no read** and **no write** permission. However, *CentreVu* CMS does not actually store records of vector access permissions until you enter permissions on the Vector Access window. This way of storing permissions saves disk space.
- In addition, if you want to turn off a user's access permissions to a vector, you can simply delete that user's permissions for that vector instead of entering **no** in the `Read` and `Write` fields. Then, the *CentreVu* CMS default of **no** permissions is in effect again for that user for that vector.

Prerequisite System Administration

- You must assign, on the User Data window, a user ID for a user before you can assign vector permissions for that user.
 - You must have **write** permission for the User Permissions subsystem.
-

Vector Access Window

To assign vector access permissions, you must complete the Vector Access window, Figure 7-8. See Table 7-7 for descriptions of the fields on the Vector Access window.

The screenshot shows a window titled "User Permissions: Vector Access" with a user name "G3V5_eas" in the top right corner. The window contains several input fields and a menu. The fields are: "User ID:" followed by a blank line, "Vectors:" followed by a blank line, "Read (y/n) : _", "Write (y/n): _", and "Exceptions (y/n): _". To the right of these fields is a menu with the following options: "Add", "Delete", "Find one", "List all", "Modify", "Next", and "Previous".

Figure 7-8: Vector Access Window

Table 7-7: Vector Access Field Descriptions

Field	Description
User ID:	Enter the ID of the user whose vector access permissions you want to add, delete, modify, or view.
Vectors:	Enter the vector name(s) or number(s) for which you want to add or change this user's permissions.
Read (y/n):	Enter y for yes if this user <i>will</i> have read permission for the vectors, or enter n for no, if this user will <i>not</i> have read permission for the vectors.
Write (y/n):	Enter y for yes, if this user will have write permission for the vector(s). Enter n for no, if this user will <i>not</i> have write permission for the vector(s). If you assign write permission, you must also assign this user read permission.
Exceptions (y/n):	Enter y for yes, if this user will receive vector exception notification, or enter n for no, if this user will <i>not</i> receive vector exception notification. The notification is either an audio (beep) sound or a screen flash when an exception occurs. The user will also see entries in the real-time exceptions log and an exception count on the title bar. See Chapter 5, "Exceptions."

VDN Access

Note

VDN access is available only if you have the Vectoring feature.

You define VDN access permissions to users to determine a user's ability to administer VDNs with the various *CentreVu* CMS subsystems and to access report/administration data for VDNs.

Use the VDN Access window, Figure 7-9, to assign, view, modify, or delete a *CentreVu* CMS user's access permissions to specific VDNs.

Things to Know Before You Start

- To remove a user's permissions for **one** or more VDNs, complete the User ID and VDNs fields, and select Delete. To remove **all** VDN permissions for a user, complete the User ID: field, and select Delete.
- For any particular VDN, you can give a user either read permission, read and write permission, or no permission.
- You *cannot* assign a user **write** permission without also assigning **read** permission.
- *CentreVu* CMS activates any changes you make to a user's VDN permissions the next time the user opens a window or runs a report involving VDNs.
- The *CentreVu* CMS default permissions for all VDNs are **no read** and **no write** permission. However, *CentreVu* CMS does not actually store records of VDN access permissions until you enter permissions on the VDN Access window. This way of storing permissions saves disk space.

In addition, if you want to turn off a user's access permissions to a VDN, you can simply delete that user's permissions for that VDN instead of entering **no** in the Read and Write fields. Then, the *CentreVu* CMS default of **no** permissions is in effect again for that user for that VDN.

Assigning only necessary access permissions will ensure best performance when working in the User Permissions subsystem.

Prerequisite
System
Administration

- You must assign, on the User data window, a user ID for a user before you can assign VDN permissions for that user.
- You must have **write** permission for the User Permissions subsystem.

VDN Access
Window

To assign VDN access permissions, you must complete the VDN Access window, Figure 7-9. See Table 7-8 for descriptions of the fields on the VDN Access window.

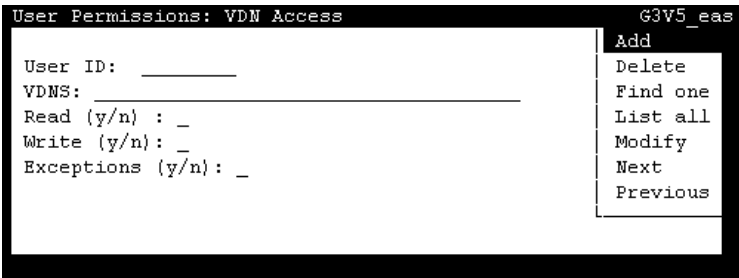


Figure 7-9: VDN Access Window

Table 7-8: VDN Access Field Descriptions

Field	Description
User ID:	Enter the ID of the user whose VDN access permissions you want to add, delete, modify, or view.
VDNS:	Enter the VDN name(s) or number(s) that this user will be able to access.
Read (y/n) :	Enter y for yes, if this user will have read permission for the VDN(s), or enter n for no, if this user will <i>not</i> have read permission for the VDN(s).

Table 7-8: VDN Access Field Descriptions (Contd)

Field	Description
Write (y/n):	Enter y for yes, if this user will have write permission for the VDN(s), or enter n for no, if this user will <i>not</i> have write permission for the VDN(s). If you assign write permission, you must also assign this user read permission.
Exceptions (y/n):	Enter y for yes, if this user will receive VDN exception notification, or enter n for no, if this user will <i>not</i> receive VDN exception notification. The notification is either an audio (beep) sound or a screen flash when an exception occurs. The user will also see entries in the real-time exceptions log and an exception count on the title bar. See Chapter 5, "Exceptions".

Chapter 8

System Setup

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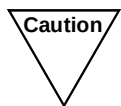
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General Information

From the System Setup subsystem, Figure 8-1, you can view windows that display how your *CentreVu*™ CMS was configured during installation. You can also do the following from this subsystem.

- View switch information.
- Define a pseudo-ACD to be used for unarchiving previously backed-up historical data.
- Load data into a pseudo-ACD.
- Allocate the amount of storage to be used for collecting historical data.
- Identify and specify where you would like to store specific *CentreVu* CMS files.
- Specify the intervals of time for data to be stored (archived), when archiving is scheduled, and define what days of the week constitute a week for your call center (for example, Monday through Friday).
- Add to the main menu items that are associated with your own custom shell scripts/executable programs.
- Check the current state of *CentreVu* CMS, and change the state to or from single-user mode and multi-user mode.
- Turn data collection on or off.
- Start, stop, or view the status of external applications.
- Archive **on demand** for daily, weekly, and/or monthly summaries.
- Migrate data from R2 CMS to *CentreVu* CMS R3V5.
- Migrate data from R3 CMS to *CentreVu* CMS R3V5.



You should *not* be working in the System Setup subsystem daily, because any changes you make in this subsystem could affect performance, disk space, or data collection.

For information on how to calculate your disk space, see the "Calculating Disk Space" section later in this chapter.

System Setup MainMenu

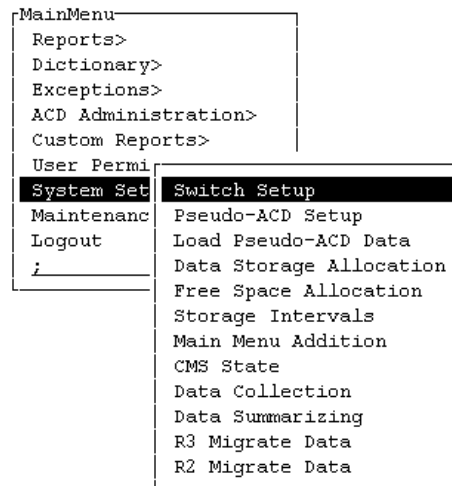


Figure 8-1: System Setup MainMenu

The following windows can be displayed by multiple users at the same time. To change any values in these windows, *CentreVu* CMS must be in the single-user mode, with data collection off for all ACDs.

- Data Storage Allocation
- Free Space Allocation
- Storage Intervals.

Terminology

Single-User Mode	Only one person can log into <i>CentreVu</i> CMS. Data continues to be collected if data collection is on.
Multi-User Mode	Any administered <i>CentreVu</i> CMS user can log into <i>CentreVu</i> CMS. Data continues to be collected if data collection is on.
Data collection off	<i>CentreVu</i> CMS is not collecting ACD data. If you turn off data collection, you lose data on current call activity. Data collection is turned off individually for each ACD.
External application	A software application that sends <i>CentreVu</i> CMS real-time data to an external device such as a wallboard.

Calculating Disk Space

Whenever you want to make changes that affect disk space (for example, changing data storage allocation, storage intervals, call work codes, or data storage allocation in the Forecast subsystem), you may want to use the Diskmap program to help you understand the results of your changes.

To calculate disk space, go to the `cmsadm` Menu in the *UNIX*^{*} system/*Solaris*[†] system and select the menu item 4) `diskmap`. This program bases its calculations on your computer type, your ACD configuration, and the amount of data you want to store.

* *UNIX* is a registered trademark of Novell, Inc.

† *Solaris* is a trademark of Sun Microsystems, Inc.

Switch Setup

This window displays the following switch setup information as it was assigned during installation.

- Switch type
- Switch release
- Purchased switch release and version
- CentreVu CMS load designation
- Phantom abandon call timer
- *CentreVu* CMS-administrable switch features (that is, Call Vectoring, Call Prompting, and Expert Agent Selection).

Things to Know Before You Start

- The Switch Setup window accepts only *live* (real) ACDs, not pseudo-ACD names or numbers.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To view switch setup information, you need **read** permission for the System Setup subsystem. See Chapter 7, “User Permissions.”

Relationships to Other Subsystems

Dictionary

For an ACD name to appear in this window, you must first enter the name in the Dictionary subsystem. See Chapter 4, “Dictionary—ACDs.”

Switch Setup Window

View this window, Figure 8-2, to see your switch name, switch release, and whether you have Call Vectoring, Call Prompting or EAS. Table 8-1 describes the fields on this window.

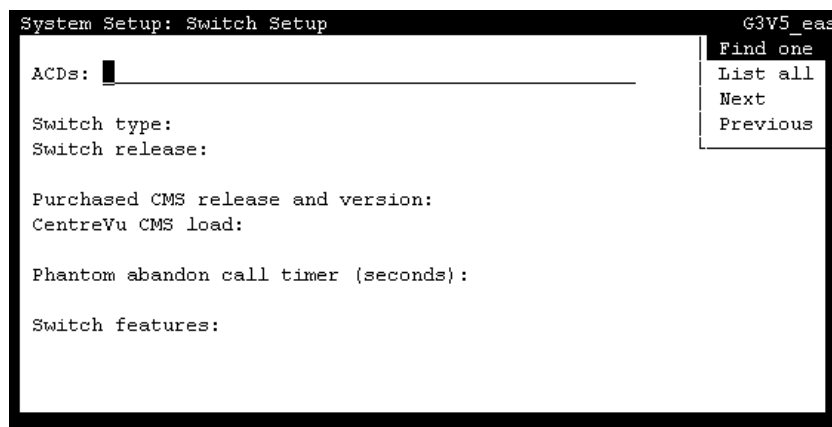


Figure 8-2: Switch Setup Window

Table 8-1: Switch Setup Field Descriptions

Field	Description
ACDs:	Enter the name(s) or number(s) of the ACD(s) that you want to view.
Switch type: (Display only)	Displays the switch type (<i>DEFINITY</i> [®]).
Switch release: (Display only)	Displays the switch release (G3i, G2.2, G3r, G3V3, G3V4, or G3V5).
Purchased CMS release and version: (Display only)	Displays the CMS release and version, for example CentreVu(TM) CMS R3V5.
CentreVu CMS load: (Display only)	Displays the <i>CentreVu</i> CMS load name, including the field update section of the load number.

Table 8-1: Switch Setup Field Descriptions (Contd)

Field	Description
Phantom abandon call timer: (Display only)	Displays the value of the phantom abandon call timer. Calls shorter in duration than the number of seconds displayed here are counted as abandoned calls (rather than ACD calls) by <i>CentreVu</i> CMS. The value displayed here is specified during installation as part of the initial setup. Valid values are off and one (1) through ten (10). Specifying a value of 0 (zero) during installation, will cause a display of off, and <i>CentreVu</i> CMS will not collect data on phantom abandon calls. The Phantom abandon call timer is only useful in areas where the Central Office does not provide disconnect supervision on trunks.
Features: (Display only)	Displays the switch features that affect <i>CentreVu</i> CMS data (Call Vectoring, Call Prompting, and Expert Agent Selection).

Pseudo-ACD Setup

You will create an area on your *CentreVu* CMS for a pseudo-ACD and give this pseudo-ACD a number. This area and number are used by *CentreVu* CMS to place previously backed-up ACD data using the Load Pseudo-ACD Data window. You can also take data previously backed up on one CMS and then unarchive that data to another CMS using this window and the Load Pseudo-ACD window. Historical reports can be run to combine data from any ACDs (real or pseudo).

Things to Know Before You Start

Pseudo-ACDs are numbered from 5 through 26.

- Because a pseudo-ACD is not a *live* (real) ACD, it does not communicate with any switch.
- When you create a pseudo-ACD, that pseudo-ACD's parameters (such as, number of agents, splits/skills, etc.) are set to zero. You must change these parameters as appropriate in the Data Storage Allocation window to match the specific switch from which data will be loaded. See the Data Storage Allocation window description later in this chapter.
- When a pseudo-ACD is the current ACD, only the following menu items are available, if you have the appropriate feature access permissions:

Reports	System Setup	Maintenance
Historical	Switch Setup	Backup/Restore Devices
Dictionary	Pseudo-ACD Setup	Printer Administration
all submenu items	Load Pseudo-ACD	Connection Status
Forecast	Data Storage Allocation	ACD Status
all submenu items	Free Space Allocation	Archiving Status
Custom Reports	Storage Intervals	Error Log Report
all submenu items	Main Menu Addition	
User Permissions	CMS State/Parameters	
all submenu items	Data Summarizing	
	R3 Migrate Data	
	R2 Migrate Data	

- Pseudo-ACDs do not summarize data into weekly and monthly summaries unless data from the backup is already in weekly and monthly summaries.
- The pseudo-ACD and the machine on which it is loaded must be the same dot issue of CMS.

- Before you load the previously backed-up ACD data to the pseudo-ACD, you **must** make the pseudo-ACD your current ACD. After you change your current ACD, use the Load Pseudo-ACD Data window to load the data. See Chapter 2, “User Basics—Selecting the Current ACD,” for changing your current ACD, and the Load Pseudo-ACD Data description later in this chapter.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

Before you create a pseudo-ACD, make sure you complete the following items:

- You must have **read** permission for the System Setup subsystem to view the Pseudo-ACD Setup window. See Chapter 7, “User Permissions—Feature Access.”
- You must have **write** permission for the System Setup subsystem to create pseudo-ACDs. See Chapter 7, “User Permissions—Feature Access.”
- If you have the Forecast feature on the pseudo-ACD, you should change, as appropriate, the values for the Forecast Archive Parameters. These values affect the free space allocation. To change these values, see the Archive Parameters window in the Forecast subsystem.

After you create a pseudo-ACD, and **before** you load the data into the pseudo-ACD, do the following:

- Back up the historical data you want for the pseudo-ACD. See Chapter 9, “Maintenance—Back Up Data.”
- Define a synonym for your pseudo-ACD in the Dictionary subsystem.
- Verify that enough free space is available to unarchive the data. The Free Space Allocation window is used to see where data are stored, how much space is required for the “real” ACD, and how much space is available for the pseudo-ACD data. You must know how much data will be unarchived. See “Free Space Allocation” in this chapter.
- Define how much historical data will be stored for this pseudo-ACD. See “Data Storage Allocation” in this chapter. You do this to provide a place to put the data in the pseudo-ACD.

- Set the storage intervals for the data to be loaded to the pseudo-ACD. The data storage values are zero for a newly created pseudo-ACD. The storage interval size and data collection times for the pseudo-ACD should match those of the loaded data. See "" in this chapter.
 - Change access permissions as appropriate for the pseudo-ACD (see Chapter 7, "User Permissions—ACD Access").
-

Relationships to Other Subsystems

Maintenance

The Backup Data window in the Maintenance subsystem is used to archive the data that will be loaded into the pseudo-ACD created in this window.

System Setup—Free Space Allocation

For both real and pseudo-ACDs, data collection must be off and *CentreVu* CMS must be in the single-user mode before you can modify anything in the Free Space Allocation window.

System Setup—Data Storage Allocation, Storage Intervals

Data collection can be on when you modify the Data Storage Allocation or Storage Interval window for a pseudo-ACD. *CentreVu* CMS must be in the single-user mode.

User Permissions

Before deleting a pseudo-ACD, you should turn off permissions to it. This minimizes the risk that someone could be working in the pseudo-ACD when it is deleted.

When a pseudo-ACD is deleted, any window currently open in the pseudo-ACD no longer has access to the data. **The deletion succeeds even if windows are open.**

Timetable

You can place this window on a timetable. See Chapter 3, "Timetable and Shortcut."

Pseudo-ACD
Setup Window

You must complete the Pseudo-ACD Setup window, Figure 8-3, to create a pseudo-ACD. Table 8-2 describes the fields on this input window.



Figure 8-3: Pseudo-ACD Setup Window

Table 8-2: Pseudo-ACD Setup Field Descriptions

Field	Description
ACD :	Enter the number (5 through 26) or name of the pseudo-ACD. With Add, you must enter an ACD number if you have not defined a synonym for it. You can enter the ACD name with all other action list items, once the synonym has been defined.

Load Pseudo-ACD Data

Use this window to load ACD data into the pseudo-ACD created in the Pseudo-ACD Setup window.

Things to Know Before You Start

- You must make the pseudo-ACD the **current ACD** before you can load data. See Chapter 2, "User Basics—Selecting the Current ACD," for the procedures.
- Since this window accepts whatever data exists on any backup volume that is mounted, the data loaded from a full backup might be more than you need, which could create disk space problems. Therefore, you should determine the amount of data needed and disk space required and do only a *Specific Tables* backup for use with this window.

Load pseudo-ACD automatically removes existing data and inserts new data if pseudo-ACD data already exists for this ACD.

- The software load that the data came from must be the same as software load that you are loading to.
- Cancel stops loading the data. If you stop loading data before it is finished, partial data for this pseudo-ACD remains.
- Data are migrated to the pseudo-ACD for the period between the specified start and stop dates, entered in this window.

Prerequisite System Administration

Before you load the pseudo-ACD data, do the following:

- Do a backup to generate a pseudo-ACD data volume.
- Set up the pseudo-ACD in the Pseudo-ACD Setup window. See "Pseudo-ACD Setup" in this chapter.
- Define how much historical data will be stored for this pseudo-ACD. The storage allocation parameters must be large enough to accommodate the data to be loaded. See "Data Storage Allocation" in this chapter.
- Set the storage intervals for the data to be unarchived. The storage interval size and data collection times for the pseudo-ACD must match those of the data to be loaded. See "" in this chapter.

- If desired, change access permissions for the pseudo-ACD in the User Permissions subsystem, ACD Access window (see Chapter 7, “User Permission—ACD Access”).
- If you have the Forecast feature, you should change, as appropriate, the values for the forecast archive parameters. These values affect the free space allocation. To change these values, see the Archive Parameters window in the Forecast subsystem.

Relationships to
Other
Subsystems

Maintenance

The Backup Data window in the Maintenance subsystem is used to back up the data that will be loaded using this window.

Timetable

You can place this window on a timetable. See Chapter 3, “Timetable and Shortcut.”

Load Pseudo-ACD
Data Window

You must complete the Load Pseudo-ACD Data window, Figure 8-4, to load data into the pseudo-ACD created in the Pseudo-ACD Setup window. Table 8-3 describes the fields on this input window.

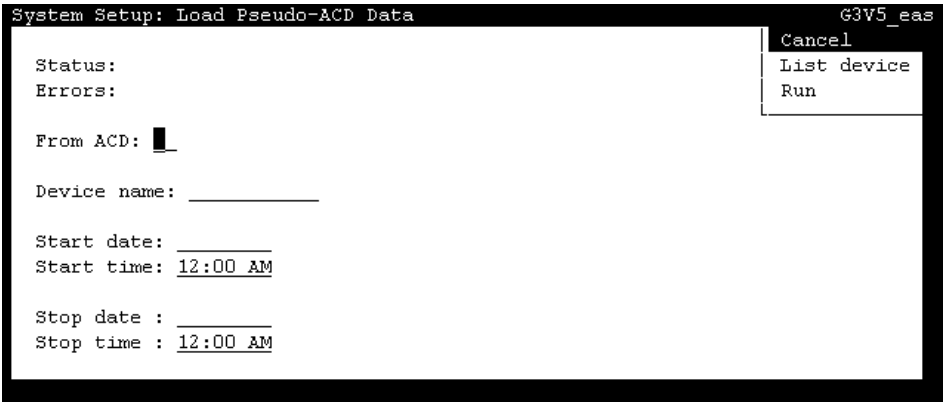


Figure 8-4: Load Pseudo-ACD Data Window

Table 8-3: Load Pseudo-ACD Data Field Descriptions

Field	Description
Status: (Display only)	Displays the status of the data being loaded into the pseudo-ACD.
Errors: (Display only)	Displays any errors found while loading the pseudo-ACD data.
From ACD:	Enter the ACD number that the data are coming from. This is the ACD number for the machine on which the backup was made.
Device name:	Enter the name of the device from which you are loading data. The devices are listed in the Backup/Restore Devices window in the Maintenance subsystem. See Chapter 9, "Maintenance."
Start date:	Enter the start date. The start date tells <i>CentreVu</i> CMS which date to look for on the backup volume and at which point to begin loading data to the pseudo-ACD.
Start time: (Default is 12:00 a.m., midnight)	Enter the time from when you want to start migrating data to the pseudo-ACD. The time tells <i>CentreVu</i> CMS which time to look for on the backup volume and at which point to begin loading data to the pseudo-ACD.
Stop date: (Required)	Enter the date that you want to stop migrating the data from the backup volume to the pseudo-ACD. This is the date on the backup volume at which you want <i>CentreVu</i> CMS to stop loading data to the pseudo-ACD.
Stop time: (Default is 11:59 p.m.)	Enter the time at which you want to stop migrating data from the volume to the pseudo-ACD. This is the time on the backup volume at which you want <i>CentreVu</i> CMS to stop loading data to the pseudo-ACD.

Data Storage Allocation

The Data Storage Allocation window allows you to specify how much and how long data are saved by *CentreVu* CMS. The amount of data and the length of time it is saved affects disk space and is limited by your specific system configuration. These parameters are set during installation.

This window lists the maximum number of splits/skills, agents, trunk groups, trunks, call work codes, vectors, and VDNs for your system. You can choose to allocate storage space for those maximums, you can change these allocations to meet your specific needs without exceeding the maximums, and you can enter shift times (at least one), and the number of agents for those shifts. This information is used to calculate the amount of space to be reserved for the historical agent tables.

The data storage allocation requirements vary from installation to installation. You have to determine your *CentreVu* CMS data requirements based on the following:

- Available disk space on your specific system configuration
- Number of ACDs (the real ACD and pseudo-ACDs) on the system
- Size of the real ACDs and all pseudo-ACDs (number of agents, trunks, etc.)
- Length of time for data to be stored (for example, 30 days versus 100 days, versus 2 years).

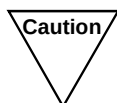
Note

When you change the switch parameters using `swset up` (this may include changing the type of switch, enabling vectors and EAS), you need to check the parameters on the data storage allocation screen. In particular, if you enable the vectoring feature, you need to allocate space for VDNs and vectors to store data for them. Changing the release of the switch may change the number of measured entities that are allowed and would have an impact on the storage allocation for each entity.

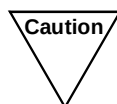
You can use the Data Storage Allocation window to reduce the amount of disk space used to store the historical database.

Your *CentreVu* CMS reporting priorities also determine how you set your data storage allocation.

Things to Know Before You Start



After your changes are made successfully, the status line reads **Successful**. At that time you should **turn data collection back on and restore the CentreVu CMS to the multi-user state**.



Data may be removed if you **Modify** this window, and memory will be reallocated. It is recommended that you **print a copy of this window prior to modifying it**.

If you are currently doing a **Modify**, **do not** open another Data Storage Allocation window to start an additional **Modify** action. You could lose data tables doing multiple modifies. **Do not** start another modify until the initial modify finishes.

- If you do not have the Vectoring feature or your switch does not support call work codes, the fields corresponding to **Call work codes**, **Vectors**, and **VDNs** are not displayed.
- The maximum storage for each data type (that is, agent, split/skill, trunk, trunk group, etc.) is limited by the amount of free space available in the specified file system and the maximum storage requirements. The amount of free space in a file system may be determined by accessing the Free Space Allocation window in the System Setup subsystem. Assuming free space is available, the maximum storage capabilities are as follows:
 - Intrahour Storage—62 days
 - Daily Storage—5 years (1825 days)
 - Weekly/Monthly Storage—10 years (520 weeks, 120 months).
- The length of your intrahour interval (Storage Intervals window) affects how much disk space is needed to store the days of intrahour data. For example, if you set your intrahour interval to be 15 minutes, the amount of disk space required is four times larger than if you set your intrahour interval at 60 minutes (for the same number of days of data).

The start time, stop time, weekly start day, and weekly stop day in the Storage Intervals window also affect disk space.
- Have a good idea of your future growth potential to properly allocate the correct amount of data storage.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Data collection for all *real* ACDs must be off, if you want to change data storage parameters. To turn data collection off use the Data Collection window (see Data Collection later in this chapter). After you have completed your changes and the status line reads `Successful`, you can turn data collection back on.



With a pseudo-ACD only, data collection can be on when you modify the Data Storage Allocation window. See "Pseudo-ACD Setup" earlier in this chapter.

- To view how space has been allocated, you need **read** permission for the System Setup subsystem.
- To modify data storage allocation, you must have **write** permission for the System Setup subsystem.
- *CentreVu* CMS must be in the single-user mode if you want to modify your data storage parameters. Use the CMS State window to put *CentreVu* CMS in the single-user mode (see CMS State later in this chapter). (If you log out while in the single-user mode, you must wait at least 10 seconds before logging in again.)

After your changes are made to the Data Storage Allocation window and the status line reads `Successful`, you can restore *CentreVu* CMS to the multi-user state.

- Check the free space (Free Space Allocation window) and determine where you can allocate space for data storage. This window displays the amount of disk space that is currently available for use. The values entered in the Data Storage Allocation window affect the amount of free space still available. (See the Free Space Allocation window description later in this chapter.)

Relationships to Other Subsystems

Maintenance

After you change the data storage allocation parameters, you should do a full backup of the historical data.

Timetable

You **cannot** place this window on a timetable.

Reports

The values specified for data storage determine how much data you have available for running historical reports. For example, if you choose not to save weekly and monthly data, weekly or monthly reports will display no data.

Data Storage Allocation Window

To change the allocated amount of storage space used when collecting historical data, you must complete the Data Storage Allocation window, Figure 8-5. This window initially displays the values set during installation of your *CentreVu* CMS. Table 8-4 describes the fields on this input window.

System Setup: Data Storage Allocation g3v5 eas

Warning: Print a copy of this window prior to modifying Modify

Data Item:	# of Items	Days of Intrahour	Days of Daily	Weeks of Weekly	Months of Monthly
Splits/Skills (0-600)	255	7	60	8	2
Agents		7	60	8	2
Trunk groups (0-636)	100	7	60	8	2
Trunks (0-3650)	100	7	60	8	2
Call work codes (1-1949)	100	2	4	1	1
Vectors (0-512)	100	7	60	8	2
VDNs (0-1790)	100	7	60	8	2
Shift 1 Times: 12:00 AM - 11:59 PM					Maximum agents logged in: 5000
Shift 2 Times: -					Maximum agents logged in: -
Shift 3 Times: -					Maximum agents logged in: -
Shift 4 Times: -					Maximum agents logged in: -
Total split/skill members, summed over all splits/skills(0-5000): 5000					
Number of agent login/logout records (0-986999): 4000					
Number of agent trace records (0-487000): 4000					
Number of unmeasured trunk facilities: 100					
Number of exception records (0-1000): 500					
Number of call records (0-59999): 20000					

Figure 8-5: Data Storage Allocation Window

Table 8-4: Data Storage Allocation Field Descriptions

Field	Description
Data Item: (Display only)	Lists the maximum number of splits/skills, trunk groups, trunks, call work codes, vectors, and VDNs allowed for your system.

Table 8-4: Data Storage Allocation Field Descriptions (Contd)

Field	Description
# of Items	Enter the number of items for splits/skills, trunk groups, trunks, call work codes, vectors, and VDNs for which you want space allocated. • When you enter this window, the fields display the number of currently administered data items. This number should include expected growth. For example, if you currently have allocated space for three splits/skills, 3 is displayed under the # of Items heading in the row corresponding to the Splits/Skills data item. When you enter a value for the skills measured on a Generic 2.2 switch with the EAS option, you must include the default skills in your count. For example, if you have skills 10-109, you would enter 100 in the # of Items field.
Days of Intrahour	Enter the number of days for which you want intrahour data stored for splits/skills, agents, trunk groups, trunks, call work codes, vectors, and VDNs. • Each entry (split/skill, trunk group, etc.) can be different. • When you open this window, the fields display the number of days for which you are currently storing intrahour data. For example, if you currently have administered the Days of Intrahour to store 31 days of intrahour data, then 31 displays under the Days of Intrahour heading in the row corresponding to the appropriate data item.

Table 8-4: Data Storage Allocation Field Descriptions (Contd)

Field	Description
Days of Daily	Enter the number of days for which you want daily data stored for splits/skills, agents, trunk groups, trunks, call work codes, vectors, and VDNs. If you enter 0 (zero), <i>CentreVu</i> CMS does not save any daily data. If you want daily data stored for a complete month, enter 31 here. • Each entry (split/skill, trunk group, etc.) can be different. • When you enter this window, the fields display the number of days that you are currently storing daily data. For example, if you currently have administered the Days of Daily to store daily data for 387 days, then 387 displays under the Days of Daily header in the row corresponding to the appropriate data item.
Weeks of Weekly	Enter the number of weeks for which you want weekly data stored for splits/skills, agents, trunk groups, trunks, call work codes, vectors, and VDNs. If you enter 0 (zero), <i>CentreVu</i> CMS does not save any weekly data. • Each entry (split/skill, trunk group, etc.) can be different. • When you enter this window, the fields display the number of weeks that you are storing weekly data. For example, if you currently have administered the Weeks of Weekly to store weekly data for 104 weeks, then 104 displays under the Weeks of Weekly header in the row corresponding to the appropriate data item.

Table 8-4: Data Storage Allocation Field Descriptions (Contd)

Field	Description
Months of Monthly	Enter the number of months for which you want monthly data stored for splits/skills, agents, trunk groups, trunks, vectors, and VDNs. If you enter 0 (zero), <i>CentreVu</i> CMS does not save any monthly data. • Each entry (split/skill, trunk group, etc.) can be different. • When you enter this window, the fields display the number of months that you are currently storing monthly data. For example, if you currently have administered the Months of Monthly to store monthly data for 60 months, then 60 displays under the Months of Monthly header in the row corresponding to the appropriate data item.
Shift 1 (2, 3, or 4) Times	Enter the shift start and stop times for each shift of agents (up to four shifts) for your ACD. (This information is used to calculate the amount of space to be reserved for the historical agent table.) • Shifts may overlap. • If you specify a shift that starts before the data collection start time or ends after the data collection stop time, you receive an acknowledgment. • <i>CentreVu</i> CMS rounds shift times to the nearest interval. For example, if you use 30-minute intervals and specify a shift from 8:15 to 5:15, <i>CentreVu</i> CMS assumes that this shift is from 8:00 to 5:30. • Shifts specified in this window and during installation must be at least 1 minute long. • You cannot specify a shift from 8:00 AM to 8:00 AM for a 24-hour shift; you must specify 8:00 AM to 7:59 AM for a 24-hour shift.

Table 8-4: Data Storage Allocation Field Descriptions (Contd)

Field	Description
Total split/skill members, summed over all splits/skills (0-xxxx):	Enter the maximum number of measured split/skill members summed over all splits/skills. For Generic 2, this includes members of split/skill 0. For Generic 1 and Generic 3, you need to count extensions in multiple splits/skills once for each split/skill in which they are members. With Generic 3 this represents the maximum number of split/skill members measured or logged in at any one time. For G3 without EAS: the maximum split members administered. For G3 with EAS: the maximum agent/skill pairs (skill members), logged in. This number cannot exceed the maximum number you paid for. For G2.2 with EAS, agents are counted for each skill they log into. (An agent logged into 4 skills counts as 4 skill members.) The link between <i>CentreVu</i> CMS and the switch does not come up if you assign more agent members to splits/skills than you have paid for.
Number of Agent login/logout records (0-999999):	Enter the number of agent login/logout records that you want the system to store. A record is generated each time an agent logs in, one record per login/logout session. To calculate how many records you need, multiply the number of days you would like to save this information <i>times</i> the number of agents who log in and out each day <i>times</i> the number of times each agent logs out each day. When skills for an agent are changed, a new record is generated if the agent is logged in when the change occurs.
Number of agent trace records (0-500000):	Enter the number of agent trace records for all ACDs.

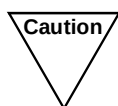
Table 8-4: Data Storage Allocation Field Descriptions (Contd)

Field	Description
Number of unmeasured trunk facilities:	Enter the number of unmeasured trunk facilities. This number should be set high enough to handle the traffic expected over these unmeasured trunk facilities, but cannot exceed the maximum number of trunks minus the number of measured trunks. An unmeasured facility is needed for all internal station to station calls and all calls that use an unmeasured <i>CentreVu</i> CMS trunk group. An unmeasured facility may be either an external trunk or an internal (intercom) trunk. All call activity to or from measured agents or measured splits/skills/VDNs uses either a measured trunk group or an unmeasured trunk facility.
Number of exceptions records for all ACDs (0-2000):	Enter the total number of exceptions stored for <i>CentreVu</i> CMS. This total is for each <i>type</i> of exception (for example, agents, splits/skills, VDNs).
Number of call records (0-5000) or (0-999999):	Enter the number of call records that you want the system to store for this ACD. If you will be sending these records to another computer for storage and analysis, this will be the amount of buffer space set aside to collect these records prior to transmission to the other system. This amount is from 0 to 999999. If you will collect and report on these records on the <i>CentreVu</i> CMS itself, this is the number of records that will be stored. The value can be from 0 to 5000.

Free Space Allocation

The Free Space Allocation window allows you to identify and specify where you would like to store specific *CentreVu* CMS files. For example, you can specify where to store all the files associated with trunks. This window is used to identify which file systems *CentreVu* CMS uses.

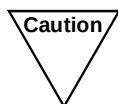
Things to Know Before You Start



After your changes are made successfully, the status line reads `Successful`. At that time you should **turn data collection back on and restore the CentreVu CMS to the multi-user state**.

Several minutes may be required for your changes to be made to this window. Messages display as these changes are being made. When all the changes have been made successfully, `Successful` appears on the status line.

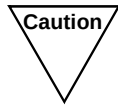
- The *available space* is calculated as follows: free space currently available minus space allocated for *CentreVu* CMS but not yet used.



CentreVu CMS does not automatically check the database for disk space used by data in custom tables. As a result, you can inadvertently fill up your disk with custom data. When this happens, you can lose or damage custom data and ACD data. Therefore, if you create custom data tables, be careful to check the amount of disk space available from time to time.

- When you alter any of the *CentreVu* CMS data storage parameters, the change is reflected in the Free Space Allocation window. For example, if in the Data Storage Allocation window you increase the number of splits/skills on your system, the Free Space Allocation window displays the new number as well as the approximate amount of disk space required to handle the total number of splits/skills.
- Data collection must be off for all *real ACDs* before you can modify the free space allocation (file systems). If you try to modify the free space allocation while data collection is on or *CentreVu* CMS is in the multi-user mode, an Acknowledgment window displays an error message.

Also, if there is not enough space available in the file system to move files/tables, an error displays in a message window and `Failed` displays on the status line.



If you are currently doing a `Modify`, **do not** open another Free Space Allocation window and start an additional `Modify` action. You could lose data tables doing multiple modifies. **Do not** start another modify until the initial modify finishes.

- If you overallocate space on a file system, the number of blocks the file system is short appears in parentheses.
- The Free Space Allocation window includes a `% Available` column as a convenience for determining how much space is available on the file systems.
- The values entered in the following System Setup windows directly affect the amount of disk space required for each file system.
 - Data Storage Allocation
 - Storage Intervals.

The Data Storage Allocation window in the Forecast subsystem also affects storage space.

- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must turn off data collection (see “Data Collection” later in this chapter).

After your changes to the Free Space Allocation window are made successfully and the status line reads `Successful`, you can turn data collection back on.
- You must put *CentreVu* CMS in the single-user mode (see the CMS State section later in this chapter). If you log out while in the single-user mode, you must wait at least 10 seconds before logging in again.

After the status line for the Free Space Allocation window reads `Successful`, you can restore the *CentreVu* CMS to the multi-user mode.

- You must have **read** permission for the System Setup subsystem to view the Free Space Allocation window. See Chapter 7, “User Permissions—Feature Access.”
- You need **write** permission for the System Setup subsystem to change the fields located in the Free Space Allocation window. See Chapter 7, “User Permissions—Feature Access.”

Relationships to Other Subsystems

Forecast

The values entered in the Forecast—Data Storage Allocation window affect storage space. See the *CentreVu™ CMS Forecast* (585-215-812) document for more specific information on the Forecast feature.

Timetable

This window **cannot** be placed on a timetable.

Free Space Allocation Window

You must complete the Free Space Allocation window, Figure 8-6, to specify where you would like to store specific *CentreVu* CMS files. Table 8-5 describes the fields on this input window.

System Setup: Free Space Allocation			All ACDs	
Status:			Modify	
File system for:	Blocks Required	File system	Blocks Avail	% Avail
Agents: /cms	2150659	/cms	1159422	28.3
Agent trace: /cms	1535			
Call wrk codes: /cms	2604			
Call records: /cms	371			
Exceptions: /cms	508			
Login/logout: /cms	1932			
Splits/Skills: /cms	130153			
Trunk groups: /cms	11141			
Trunks: /cms	8542			
VDNs: /cms	62709			
Vectors: /cms	17170			

Figure 8-6: Free Space Allocation Window

Table 8-5: Free Space Allocation Field Descriptions

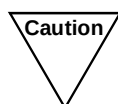
Field	Description
Status: (Display only)	Displays the name of each table as it is being moved.
File system for:	Enter the specific file system name where you would like to store the <i>CentreVu</i> CMS files for agents, agent trace, call work codes, call records, exceptions, forecast, login/logout data, splits/skills, trunk groups, trunks, VDNs, and vectors. Fields such as Vectors, VDNs, and Forecasting do not appear if you have not purchased these features. This allows you to specify the file systems where you would like to store your <i>CentreVu</i> CMS files. For example, the path name might look like <i>/cms</i>. The files are then placed in a <i>cmstables</i> directory in that file system.
Blocks Required:	The approximate number of blocks to be used for agents, agent trace, call work codes, call records, exceptions, forecasting, login/logout data, splits/skills, trunk groups, trunks, VDNs, and vectors.
File System	The names of the file systems that are available for storing <i>CentreVu</i> CMS data.
Blocks Avail	The amount of free space (in blocks) currently available minus space allocated for <i>CentreVu</i> CMS but not yet used.
% Avail	The percentage of space still available.

Storage Intervals

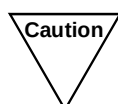
From this window, you can specify a 15-, 30-, or 60-minute storage interval for ACD data, allowing you to choose the storage interval that best meets the needs of your call center. You will also select the days of the week that begin and end your call center's week.

Storage intervals can be changed to affect how often intrahour data are archived as well as altering the times at which the data are archived. For example, if there is a change in the hours of your call center, you can change the Daily start time or Daily stop time to change when data are collected. Also, if you have specified a 60-minute intrahour interval and then you require a more detailed intrahour report, you can select a 15- or 30-minute intrahour interval. (*CentreVu* CMS will automatically adjust your historical data to reflect the change only when you are changing to a longer intrahour interval.) See Field/Action List Usage in this section for more intrahour interval information.

Things to Know Before You Start



If you are currently doing a Modify, **do not** open another Storage Intervals window and start an additional Modify action. You could lose data tables doing multiple modifies. **Do not** start another modify until the initial modify finishes.



After your changes are made successfully, the status line reads **Successful**. At that time you should **turn data collection back on and restore the CentreVu CMS to the multi-user state**.

- Free space, data storage, and storage intervals are closely tied. The Free Space Allocation window displays the amount of free space still available on your *CentreVu* CMS. As you increase the number or frequency of the storage intervals, more storage is required. Therefore, you may need to adjust the location of *CentreVu* CMS files or reduce the length of time you store data if the storage intervals change.

The Data Storage Allocation window allows you to set aside additional space (if you need it) due to an increase in the frequency of the storage intervals. To determine how much storage is available and can be used, refer to the Free Space Allocation window.

Defaults for the storage intervals are the storage intervals that were specified at the time of installation.

- *CentreVu* CMS automatically archives your data based on your entries in this window.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Data Collection must be off for all *real* ACDs before you can modify any storage intervals. You may want to modify the storage intervals during “off-peak” hours. See “Data Collection” later in this chapter.

After your changes are made successfully, the status line reads **Successful**. You can turn data collection back on at this time.



With a pseudo-ACD only, data collection can be on when you make a change in the Storage Intervals window because there is no data collection for a pseudo-ACD. See “Pseudo-ACD Setup” earlier in this chapter.

- *CentreVu* CMS must be in the single-user mode before you can modify any storage intervals. After the status line reads **Successful**, you can restore *CentreVu* CMS to the multi-user state. If you log out while *CentreVu* CMS is in the single-user mode, you must wait at least 10 seconds before logging in again.
- You need **read** permission for the System Setup subsystem to view the Storage Intervals, Free Space Allocation and Data Storage Allocation windows. See Chapter 7, “User Permissions—Feature Access.”
- You need **write** permission for the System Setup subsystem to change the fields located in the Storage Intervals, Free Space Allocation and Data Storage Allocation windows. See Chapter 7, “User Permissions—Feature Access.” These permissions are necessary to alter the storage specifications in *CentreVu* CMS.

Relationships to Other Subsystems

Real-Time Reports

The intrahour interval you select also represents how long the current intrahour interval lasts in real-time reports. Cumulative data are reset to zero at the beginning of each intrahour interval.

Historical Reports

When you request a weekly report, the date you enter must correspond to the day of the week you specified in the `Week start day` field in this window.

Maintenance

Prior to changing the storage interval size or data collection times (the daily start or stop time), you should do a full backup of the historical data.

Timetable

This window **cannot** be placed on a timetable.

Storage Intervals Window

During installation, defaults were set for this window. You can, however, change the values in the Storage Intervals window, Figure 8-7, to specify a 15-, 30-, or 60-minute storage interval for call data and to select the days of the week that begin and end your call center's week. Table 8-6 describes the fields on this input window.

```

System Setup: Storage Intervals      G3V5_eas
Intrahour interval (Select one):    Modify
    <_> 15 minutes
    <x> 30 minutes
    <_> 60 minutes

Data summarizing time: 12:35 AM
Switch time zone offset (-23 to +23): 0

Week start day      Week stop day
(Select one):      (Select one):
    <x> Sunday        <_> Sunday
    <_> Monday        <_> Monday
    <_> Tuesday        <_> Tuesday
    <_> Wednesday      <_> Wednesday
    <_> Thursday        <_> Thursday
    <_> Friday          <_> Friday
    <_> Saturday        <x> Saturday

Daily start time: 12:00 AM
Daily stop time: 11:59 PM
  
```

Figure 8-7: Storage Interval Window

Table 8-6: Storage Intervals Field Descriptions

Field	Description
Intrahour interval (Select one):	You can specify the length of your intrahour intervals by entering an x next to one of the following intervals: < > 15 minutes < > 30 minutes (Default value) < > 60 minutes A change in the <code>intrahour interval</code> field does not take effect until the end of the current intrahour interval, and existing historical data are automatically migrated when you are changing to a longer intrahour interval. If the new intrahour report interval is 15 minutes, the existing 30 or 60 minute data are divided by 2 or 4 respectively, with any remainder falling in the last 15-minute interval. If the new intrahour report interval is 60 minutes, two 30-minute intervals or four 15-minute intervals are combined.
Data Summarizing time:	Enter the time in <code>hh:mm AM/PM</code> format or in the 24-hour clock (for example, 17:00) format. If AM/PM is not specified, the 24-hour clock (military time) is assumed. This field displays the time when the daily/weekly/monthly summaries are done. The time is displayed in the <code>hh:mm AM/PM</code> format. The default daily summary time is 12:35 AM on the day following the day the data was collected. Weekly summaries are started on the day following the selected stop day. Monthly summaries are started on the first day of the next month. For example, January's monthly summary is done on the first day of February. If you want data summarizing to start on the current day, set the summarizing time 15 minutes after the daily stop time and before midnight. <i>CentreVu</i> CMS uses the daily stop time plus 15 minutes (the last interval needs to complete archiving). The weekly summaries are then started 2 hours later with the monthly summaries following by 4 hours.

Table 8-6: Storage Intervals Field Descriptions (Contd)

Field	Description
Switch time zone offset (-23 to +23):	If the <i>CentreVu</i> CMS that is collecting the ACD data from the switch is in a different time zone than your ACD (switch), you need to enter that difference in this window. <i>CentreVu</i> CMS uses and displays the switch time adjusted by the time zone offset. For example, if your switch is one time zone to the <i>west</i> of your <i>CentreVu</i> CMS, enter -1. If your switch is one time zone to the <i>east</i> of your <i>CentreVu</i> CMS, enter +1.
Week start day (Select one):	Enter an x next to the day of the week that begins your call center's week. When you request a weekly report, the start date must correspond to the day specified in this field. You may select only one day of the week. Sunday is the default. When you change the start or stop day for the week, the archiver archives data from the old start day through the new stop day for the week in which the change was made. For example, if the current week is defined as Monday-Friday and you want to change it to be Sunday-Saturday, if you make the change between Monday and Friday, the week of the change is Monday-Saturday (in other words, the old start day Monday through the new stop day Saturday). If you make the change on Saturday, however, the old week is archived for Monday-Friday, then the new week is Sunday-Saturday. If possible, you should make the change after the weekly archive, preferably on a day on which data are not normally collected. Of course, this is not possible if you collect data for a 7-day week. The week of the change has the data item INCOMPLETE set to indicate that this week's data will be peculiar, since the definition of what constitutes a week was changed. If the start and stop day are the same day of the week, only one day's worth of data are stored per week.

Table 8-6: Storage Intervals Field Descriptions (Contd)

Field	Description
Week start day (Select one): Contd	When the weekly start or stop day is changed, the current week can be 1 to 13 days long. You do not need to migrate the data because of this change. For example, if the current start day is Sunday and the stop day is Saturday, and you change the stop day on Saturday morning to Friday, the current week will have 13 days in it. If the start day is Sunday and the stop day is Saturday, and you change the stop day to Sunday on Sunday, then the current week will have only 1 day.
Week stop day (Select one)	Enter an x next to the day of the week that ends your call center's week. You may select only one day of the week. Saturday is the default. Data through the end of the stop day are included in the weekly summary.
Daily start time:	Enter the time that the data collection starts each day. The time is entered in the hh:mm AM/PM format or in the 24-hour clock (for example, 17:00) format. The default for this field is 12:00 AM (midnight). If the start or stop time is extended, there will be no records in the historical database for the added hours prior to the time of the change.
Daily stop time:	Enter the time that the data collection stops each day. The time is entered in the hh:mm AM/PM format or in the 24-hour clock time (for example, 17:00) format. The default for this field is 11:59 PM. Data are collected through the end of the minute specified.

MainMenu Addition

Use this window to add up to eight additional items to the MainMenu. These new menu items must be executable programs or shell scripts.

Things to Know Before You Start

- The new menu item name must be different from the standard MainMenu names and other new menu item names.
 - The additional menu item must be associated with the full path name of an executable program or shell script. *CentreVu* CMS checks to see if the full path name to the program/script exists and if it is executable. If it cannot find or execute the program/script, a warning indicates that *CentreVu* CMS cannot find the file.
 - You must log out and log back in to see the new menu item.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To view your MainMenu additions, you need **read** permission for the System Setup subsystem. See Chapter 7, “User Permissions.”
 - To modify any MainMenu additions, you must have **write** permission for the System Setup subsystem. See Chapter 7, “User Permissions.”
-

Relationships to Other Subsystems

Maintenance

A *CentreVu* CMS backup does **not** back up programs accessed via MainMenu additions. You have to use a *UNIX* system/*Solaris* system backup instead (see Chapter 10, “*UNIX* System/*Solaris* System”).

User Permissions

The default permissions for any MainMenu addition is “no.” You need to change the permissions for affected users to allow the users to see the addition on their main menus. See Chapter 7, “User Permissions—MainMenu Addition Access.”

Timetable

The window can be placed on a timetable. See Chapter 3, “Timetable and Shortcuts.”

MainMenu
Addition Window

You must complete the MainMenu Addition window, Figure 8-8, if you want to add additional items to the MainMenu. Table 8-7 describes the fields on this input window.

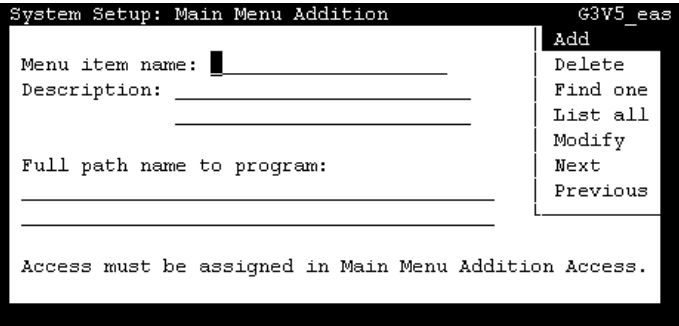


Figure 8-8: MainMenu Addition Window

Table 8-7: MainMenu Addition Field Descriptions

Field	Description
Menu item name:	Enter the name of the new menu item. This name must be unique within the MainMenu selections and can have up to 20 alphanumeric characters.
Description: (Optional)	Enter a short description of this new menu item. Item descriptions can be up to 50 characters.
Full path name to program:	Enter the full path name to the executable program/shell script.

CMS State

The CMS State window allows you to bring *CentreVu* CMS down to the single-user mode and back to the multi-user mode. You will also select your master ACD for clock synchronization in this window.

Note Changing the CMS State does not bring the *UNIX* system/*Solaris* system down to the single-user mode. If you log out of *CentreVu* CMS while in the CMS single-user mode, you must wait at least 10 seconds before logging in again.

Things to Know Before You Start

- Single-user mode means that only one person can log into *CentreVu* CMS. Data continues to be collected for those ACDs for which data collection is “on.”
- To enter or modify data within the following areas requires *CentreVu* CMS to be in the single-user mode (viewing current data does not require single-user mode). You may want to do some or all of these tasks during off-peak hours.
 - Data Storage Allocation
 - Storage Intervals
 - Free Space Allocation
 - Restore Data (for System Administration and ACD Administration data).
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To change the master ACD, data collection must be off for all ACDs. You turn data collection on and off in the Data Collection window (see “Data Collection” later in this chapter).
- To view the current CMS State, you need **read** permission for the System Setup subsystem. See Chapter 7, “User Permissions.”
- To modify the CMS State or master ACD, you must have **write** permission for the System Setup subsystem. See Chapter 7, “User Permissions.”

CMS State Window

You must complete the CMS State window, Figure 8-9, to change the *CentreVu* CMS mode (single-user or multi-user mode) or to change the master ACD for clock synchronization. Table 8-8 describes the fields on this input window.

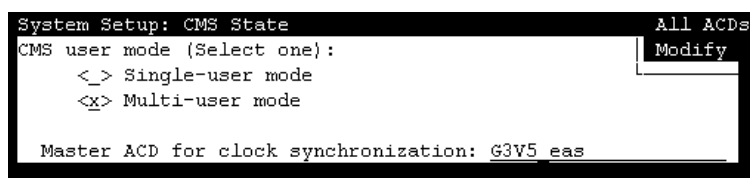


Figure 8-9: CMS State Window

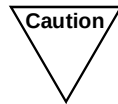
Table 8-8: CMS State Field Descriptions

Field	Description
CMS user mode (Select one):	< > Single-user mode Enter an <code>x</code> to specify that CMS is being changed to the single-user mode. When <i>CentreVu</i> CMS is brought down to the single-user mode, an Acknowledgment window displays to all users indicating that <i>CentreVu</i> CMS will be brought down in 1 minute. Users are automatically logged off after 1 minute. Also, if you log out of <i>CentreVu</i> CMS while in the single-user mode, you must wait at least 10 seconds before logging in again. < > Multi-user mode Enter an <code>x</code> to specify that you are bringing <i>CentreVu</i> CMS up to the multi-user mode.
Master ACD for clock synchronization:	Enter the name or number of the ACD which you would like to have as the Master ACD. <i>CentreVu</i> CMS displays this switch's time on the title bar. To change the master ACD, data collection must be off for all ACDs.

Data Collection

The Data Collection window is used to turn data collection on or off for real ACDs.

Things to Know Before You Start



If you are doing a restore, **DO NOT** start Data Collection until all system data has been restored. You can determine this by viewing the Restore status.

- When you turn on data collection, you should monitor the connection status of the link and make sure data are being transferred. Refer to the Maintenance Menu, Connection Status selection.
 - You lose data if your call center is operating while data collection is off. If calls are being handled, they are not recorded in *CentreVu* CMS.
 - This window does not apply to a *pseudo-ACD*, because a pseudo-ACD is not collecting data.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- To view the status of data collection, you need **read** permission for the System Setup subsystem.
 - To modify data collection, you must have **write** permission for the System Setup subsystem.
-

Relationships to Other Subsystems

ACD Administration

Data collection must be on for the current ACD, when you activate an agent trace or do any switch administration from *CentreVu* CMS.

Maintenance—Archiving Status

You should check the archiving status before turning off data collection, or you can wait until the interval archive completes.

Data Collection Window

You must complete the Data Collection window,Figure 8-10, to turn data collection on or off. Table 8-9 describes the fields on this input window.

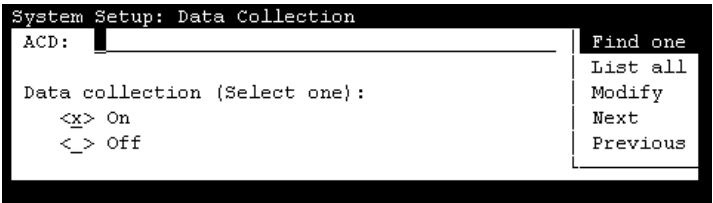


Figure 8-10: Data Collection Window

Table 8-9: Data Collection Field Descriptions

Field	Description
ACD:	Enter the name or number of the ACD you want to view or modify.
Data collection (Select one):	< > On (Default value) Enter an x to turn on data collection. (Displays an x if data collection is currently turned on.) < > off Enter an x to turn off data collection. (Displays an x if data collection is currently off.)

External Application Status

Use the External Application Status window to turn on or turn off the External Application feature, to start or stop external applications, or to view the status of external applications. An external application sends *CentreVu* CMS real-time data to an external device such as a wallboard, or to an external program such as an employee scheduler.



External Application is a separately purchased *CentreVu* CMS feature.

Things to Know Before You Start

- In the United States, the external applications are designed and administered by the Technical Service Center. For more information about external applications, call the National Customer Care Center Call Center Helpline at 1-800-242-2121. For assistance outside the United States, contact your local Lucent distributor or representative.
- The status of an external application may be as follows:
 - **Starting**—A request to start the external application has been made.
 - **Running**—The external application has started and is still running after 10 seconds.
 - **Stopping**—A request to stop the external application has been made.
 - **Stopped**—All processes associated with the external application have stopped.
 - **Failed**—The external application has failed repeatedly and is no longer being restarted.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To view the status of external applications, you need **read** permission for the System Setup subsystem.
- To turn on or turn off the External Application feature or to start or stop an external application, you must have **write** permission for the System Setup subsystem.

Relationships to Other Subsystems

Reports

A standard or custom real-time report collects the *CentreVu* CMS data that is sent to the external application.

Timetable

The External Application Status window can be put on a timetable. See Chapter 3, “Timetable and Shortcut.”

External Application Status Window

Use the External Application Status window, Figure 8-11, to turn on or turn off the external application feature, to start or stop external applications, or to view the status of external applications. Table 8-10 describes the fields on this input window.

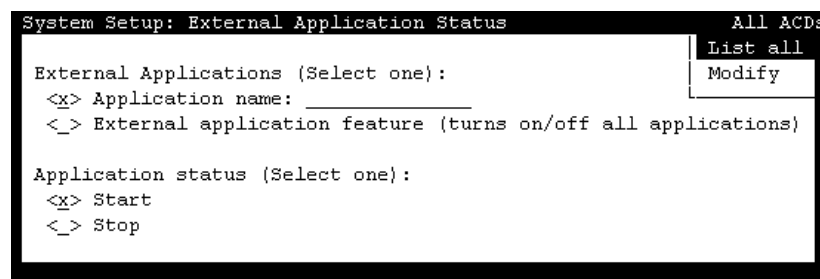


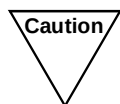
Figure 8-11: External Application Status Window

Table 8-10: External Application Status Field Descriptions

Field	Description
External Applications (Select one):	< > Application name: Enter an x and the name of a specific external application to start, stop, or view its status. An external application cannot be started unless the External Application feature has been turned on. < > External application feature (turns on/off all applications) Enter an x to turn on the External Application feature or to view the status of all external applications.
Application status (Select one):	< > Start Enter an x to start the specified external application or to turn on the External Application feature. < > Stop Enter an x to stop the specified external application or to turn off the External Application feature.

Data Summarizing

The Data Summarizing window allows you to archive data into the historical database *on demand* for daily, weekly, and monthly summaries.



Your data are automatically archived by *CentreVu* CMS based on your entries in the Storage Intervals window. It is recommended that you do *not* use this window unless an archive failed or did not occur.

Things to Know Before You Start

- *CentreVu* CMS automatically archives your data based on your storage intervals.
- Data summarizing is done on demand from this window, which means it happens immediately.
- An Acknowledgment is sent before you start a manual archive, which warns you that archiving data can take a long time and cannot be canceled. From this message, you can back out before you start the archive.
- Multiple data summarizing requests are queued and are run in the order requested.
- `Archiver started` appears on the status line for the first request, and `Archiver request submitted` appears if there is already a data summarization in progress.
- Scheduled daily, weekly, and monthly data summaries are queued along with manual requests so only one kind of data summarizing runs at one time.
- A manual archiving request requires existing data for the day, week, or month being summarized. You cannot request a manual archive without existing data. You must have allocated space in the Data Storage Allocation window before you can archive.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
- The results of daily, weekly, and monthly data summaries are written to the error log. You can use the Error Log Report to see when the summaries ran and whether or not they were successful. The archiving status window also shows this information.

Prerequisite
System
Administration

- To view data summarizing, you need **read** permission for the System Setup subsystem.
 - To run data summarizing, you need **write** permission for the System Setup subsystem.
-

Relationships to
Other
Subsystems

Maintenance—Archiving Status

The Archiving Status window displays the status, date, and time of the last archive for interval, daily, weekly, and/or monthly summarizing.

If *CentreVu* CMS is down when a Data Summarizing timetable is scheduled to run, an error message is logged which directs you to do a manual archive from the Data Summarizing window.

Timetable

This window is automatically placed on a timetable to run at the designated *data summarizing time* that you entered on the Storage Intervals window. This timetable cannot be viewed or modified through the **Keep** SLK. See the window description earlier in this chapter for more information.

Manual archiving can also be placed on a timetable.

Data
Summarizing
Window

Complete the Data Summarizing window, Figure 8-12, **only** if a previous archive failed or did *not* occur. Table 8-11 describes the fields on this window.

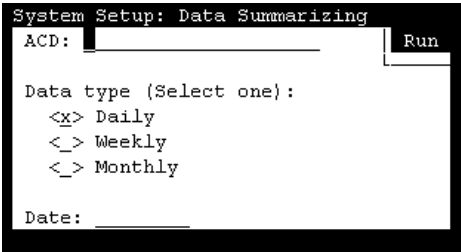


Figure 8-12: Data Summarizing Window

Table 8-11: Data Summarizing Field Descriptions

Field	Description
ACD:	Enter the name or number of the ACD for which you want to summarize data.
Data type (Select one):	< > Daily (Default value) Enter an x to summarize intrahour data into daily data. < > Weekly Enter an x to summarize daily data into weekly data. < > Monthly Enter an x to summarize daily data into monthly data.
Date:	Enter the date for which you would like the data archived. • A daily summary will archive a partial day. • Daily summaries must be complete for each day of the week or month, before <i>CentreVu</i> CMS archives the data for that week or month. Partial weekly or monthly data cannot be summarized. The week or month must be complete. • For weekly summaries, you must enter a date that falls within your predefined week (Storage Intervals window) or any date after that week but before the next week's start date. If you do not, <i>CentreVu</i> CMS does not summarize weekly data If the date entered does not fall within your predefined week, then the previous week is summarized (as long as each day of the previous week has been archived successfully). If your designated week is Monday through Friday and you enter a date that falls on Saturday, the data are archived for the previous week. • For monthly summaries, enter any day during the month for which you want the monthly data summarized.



If the date specifies a week or month for which a daily summary is not complete, summarizing does not occur for the week or month.

Migrating Data

R3 Migrate Data Window

The R3 Migrate window, Figure 8-13, is used to migrate CMS data from prior R3 CMS releases to current releases.

The screenshot shows a window titled "System Setup: R3 Migrate Data". It contains several input fields and a list of options. The "Device name" is set to "default". The "Data type" is set to "Historical data", with "Stop date" and "Stop time" fields set to "12:00 AM". The "Specify ACD(s) to migrate" section has "All ACDs" selected. The status bar at the bottom indicates "Status: Last migration completed (10/16/1996 10:25:11)".

```
System Setup: R3 Migrate Data                                     All ACDs
Device name: default
Data type (Select one):
  <_> System Administration data (single-user required)
  <_> ACD Administration data (data collection off required)
  <x> Historical data
      Stop date: 
      Stop time: 12:00 AM
Specify ACD(s) to migrate (Select one):
  <x> All ACDs
  <_> Single ACD
      from:   to:
Status: Last migration completed (10/16/1996 10:25:11).
```

Figure 8-13: R3 Migrate Data Window

For more information, see the *CentreVu™ CMS R3V5 Upgrades and Migration* (585-215-826) document.

R2 Migrate Data Window

The R2 Migrate Data window, Figure 8-14, is used to migrate data from R2 3B CMS to current a *CentreVu* CMS release. Items that can be migrated include the following:

- Administration data (that is, User Permissions)
- Dictionary
- Custom Reports
- Historical data
- Forecast Administration Data.

The screenshot shows a window titled "System Setup: R2 Migrate Data". In the top right corner, there is a button labeled "ALL ACDs". Below it is a dropdown menu currently showing "List device", with a "Run" button underneath. The main area of the window contains the following text: "Device name: default" followed by a text input field. Below that is "Data type (Select one):" followed by two radio button options: "<X> Administration, Dictionary, and Custom Reports" (which is selected) and "<_> Historical and Forecast Administration Data". Under the second option, there are fields for "Stop date:" and "Stop time: 11:59 PM". At the bottom, there is a label "Status:" followed by a large empty text area.

Figure 8-14: R2 Migrate Data Window

For more information, see the *CentreVu™ CMS R3V5 Upgrades and Migration* (585-215-826) document.

Chapter 9

Maintenance

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General Information

The Maintenance subsystem allows you to perform routine maintenance of the *CentreVu*™ CMS such as backing up data, checking on the status of the connection to the switch, and scanning the error log.

From the Maintenance subsystem, you can do the following:

- Initiate *CentreVu* CMS backups and restores.
- Assign a name and description to a full path name for a device. This device name is used for data backups.
- Assign printer names and options.
- Monitor the data link between the *CentreVu* CMS processor and the switch.
- View the measurement status of a particular ACD.
- View the Error Log Report.

Maintenance Menu

CentreVu CMS administrators and users with read and write permission can complete any of the available procedures from the Maintenance Menu, Figure 9-1. Users with read permission only may view Printer Administration (how printers are administered), Connection Status, ACD Status, Archiving Status, and the Error Log Report.

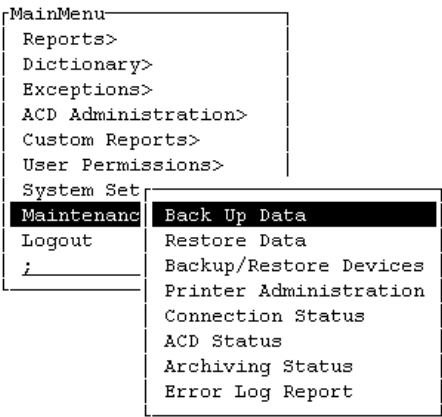


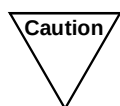
Figure 9-1: Maintenance Menu

Backup Strategy

The backup procedure copies the data stored on the *CentreVu* CMS machine to a removable volume (tape, etc.).

Reasons for Backups

A backup is performed to minimize the loss of data caused by failures or errors. Regular backups provide a way to recover data that would otherwise be lost.



If backups are not done and data is lost, you cannot recover it. The frequency of your backups is determined by how much data your call center is willing to lose in the case of a catastrophic failure.

Types of Backups

CentreVu CMS provides the following types of backups.

- cmsadm File System Backup
- CMS Full Maintenance Backup
- CMS Incremental Maintenance Backup.

CMSADM File System Backup

The cmsadm File System Backup copies the following:

- *UNIX*^{*} system/*Solaris*[†] system files and programs
- *CentreVu* CMS programs and data
- Non-CMS data you placed on the computer in addition to the *CentreVu* CMS data.

Table 9-1 describes how you should do the backup, why you should do the backup, and when you should do the backup.

^{*} UNIX is a registered trademark of Novell, Inc., in the United States and other countries licensed exclusively through X/Open Company Ltd.

[†] Solaris is a trademark of Sun Microsystems, Inc.

Table 9-1: CMSADM File System Backup

How?	When?	Why?
From the <i>root</i> login via the cmsadm command. See Chapter 10, “ <i>UNIX System/Solaris System</i> ” for the backup procedures.	Prior to upgrading the <i>CentreVu</i> CMS to a new software load. As soon as possible after an upgrade. Monthly.	As a precautionary measure, should a failure occur during an upgrade. Because restoring the system is faster if a failure occurs. A regular backup reduces the time it takes to restore the system to an operating state and provides more up-to-date information.

Verifying That the Backup Tape is Readable

After doing a monthly **cmsadm** file system backup, perform the following procedure to verify that the backup tape is readable:

1. Remove the tape from the tape drive and write-protect it (set it to Safe or Save) so that it cannot be overwritten accidentally.
2. Clean the tape drive using the appropriate cleaning kit or cartridge.
3. Insert the tape into the tape drive, log in to *CentreVu* CMS as *root*, and enter one of the following commands:

Platform	Command
Intel [*] with a QIC (Quarter Inch Cartridge) tape	cpio -icvt -C 10240 -I/dev/scsi/qtape1
Intel with an X-tape	cpio -icvt -C 10240 -I/dev/scsi/xtape1
Sun [†]	cpio -icvt -C 10240 -I/dev/rmt/1

^{*} Intel is a registered trademark of Intel Corp.

[†] Sun is a registered trademark of Sun Microsystems Inc.

If the tape backup is good, a listing of the files on the tape will be displayed. If a listing is not displayed, repeat the steps for the file system backup.

CMSADM File System Backups for New CentreVu CMS Installations

Because backups are so important, Lucent Technologies provides two cmsadm file system backups. The *first* backup is done at the factory and is shipped with your *CentreVu* CMS. This backup is precautionary and is used during installation if necessary.

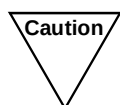
The *second* backup is done when your *CentreVu* CMS is provisioned. This backup contains all the *UNIX* system/*Solaris* system files and programs and the *CentreVu* CMS configuration data that was done by provisioning.

Labels for the cmsadm File System Backup tapes are shipped with your *CentreVu* CMS. Label the tapes appropriately, and then store these tapes in a secure area.

Maintenance Backup—Full and Incremental

Full and incremental backups save only the *CentreVu* CMS data (historical data, dictionary, etc.). You run these backups from the Maintenance: Back Up Data window. Either of these backups can be scheduled to run automatically on a timetable.

You may choose to run full backups or a combination of full and incremental backups, depending on your call center requirements.



The maintenance backups (full or incremental) are used to restore your *CentreVu* CMS data (that is, historical data, dictionary, etc.). If you do not have the backups to restore your data, the data are lost and cannot be recovered. Again, the frequency of your maintenance backups is determined by how much data your call center is willing to lose.

Full Maintenance Backup

It is strongly recommended that you do a **full backup weekly**.

A full backup includes all the data in the *CentreVu* CMS database tables (historical data, dictionary, permissions, etc.). If the backup does not fit on one tape, you are prompted for another tape when needed.

Incremental Maintenance Backup

An incremental backup includes new *CentreVu* CMS historical data since the previous full or incremental backup. Incremental backups may be a more efficient and less time-consuming way to back up your *CentreVu* CMS data when a full maintenance backup requires more than one tape.

You should use **at least two sets** of backup tapes when running a combination of full and incremental backups. The use of the two sets of tapes is explained in the Backup Tape Strategy sections.

Verifying That the Backup Tape is Readable

After doing a full maintenance backup or an incremental maintenance backup, perform the following procedure to verify that the backup tape is readable:

1. Remove the tape from the tape drive and write-protect it (set it to Safe or Save) so that it cannot be overwritten accidentally.
2. Insert the tape into the tape drive, log into *CentreVu* CMS as *root*, and enter the following command:

/cms/bin/br_check

3. You are asked to enter the type of backup device. Enter **q**.
4. You are asked to enter the path to the tape device. Enter one of the following paths:

Platform	Path
<i>Intel</i> with a QIC (Quarter Inch Cartridge) tape	/dev/scsi/qtape1
<i>Intel</i> with an X-tape	/dev/scsi/xtape1
<i>Sun</i>	/dev/rmt/1

5. The software begins reading the tape and displays the following information:

CMSyymmdd - xx - SAC - 00 - t - nn, where:

yymmdd	Is the year, month, and day the backup was made. Check to make sure this date matches the date on the tape label.
xx	Is the number of the backup tape made on the above date.
t	Is the backup type; F is for a Full Maintenance backup, and I is for an Incremental backup. Make sure the displayed backup type is correct.
nn	The volume (tape) number (for backups that require more than one tape).

Then, the switch type and switch features are displayed.

6. You are asked whether you want to **list** or **verify** the backup. Enter **v** for verify.
7. The verification is successful if all the backed-up files are listed. The verification is **not** successful if an error message appears.

8. Record the error message, there is a problem with your tape or tape drive that must be corrected. In locations within the United States, contact the National Customer Care Center at 1-800-242-2121. For locations outside the United States, contact your Lucent distributor or representative.

Simple Backup Tape Strategy

There are many backup combinations you could use to preserve your data. Two examples are shown below.

Full Backup Combination Example:

In the following example, the call center is doing a full backup twice a week.

Backup Type	Day	Tapes Required	Extra Tapes
Full	Wednesday	2 (Set 1)	2 (Set 1)
Full	Saturday	2 (Set 2)	2 (Set 2)

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Week 1			F (Use tapes from Set 1*)			F (Use tapes from Set 2*)	
Week 2			F (Use extra tapes from Set 1*)			F (Use extra tapes from Set 2*)	
F = Full Backup * Do not use the same tapes all the time. Rotate the tapes with the extra tapes every other week.							

Combination Full and Incremental Backup Example:

In the following example, time constraints and personnel prevent the call center from doing a full backup more than once a week, but the call center wants to preserve the data in between full backups with incremental backups during the week.

Backup Type	Day	Tapes Required	Extra Tapes
Full	Saturday The full backup contains all the <i>CentreVu</i> CMS data	2	2
Incremental	Tuesday The Tuesday incremental backup contains all the new data since the Saturday backup.	1 (Set 1)	1 (Set 1)
Incremental	Thursday The Thursday incremental backup contains all the new data since the Tuesday backup	1 (Set 2)	1 (Set 2)

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Week 1		I Use tape 1 Set 1*		I Use tape 2 Set 1*		F Use tape Set 2* (2 tapes)	
Week 2		I Use tape 1 Set 2*		I Use tape 2 Set 2*		F Use tape Set 2* (2 tapes)	
I = Incremental F = Full Backup * Do not use the same tapes all the time. Rotate the tapes with the extra tapes every other week.							

Note

It is strongly recommended that you have an appropriate number of extra tapes to rotate your tapes each week. With this example, you need two sets of four tapes so you can rotate the set of tapes between the full backup and the incremental backups.

Complex Backup Tape Strategy

You may need a different combination of incremental and full backups to meet the requirements of your call center (see the following example).

Complex Backup Tape Example:

In the following example, the call center does a **full** backup only every 2 weeks on a Saturday with **incremental** backups done Monday through Friday.

Backup Type	Day	Tapes Required	Tapes Required	Extra Tapes
Full	Saturday The full backup contains all <i>CentreVu</i> CMS data.	3*		3*
Incremental	Monday The Monday incremental backup contains all new data since the Saturday backup, including Sunday's and Monday's data (backup ran at 1AM Tuesday morning).	1 (Set 1)	1 (Set 2)	2
Incremental	Tuesday The Tuesday incremental backup contains all new data since the Monday backup.	1	1	2
Incremental	Wednesday The Wednesday incremental backup contains all new data since the Tuesday backup	1	1	2
Incremental	Thursday The Thursday incremental backup contains all new data since the Wednesday backup.	1	1	2
Incremental	Friday The Friday incremental backup contains all new data since the Thursday backup.	1	1	2
* A full backup could require more than three tapes.				

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Week 1	I Use tape 1 Set 1*	I Use tape 2 Set 1*	I Use tape 3 Set 1*	I Use tape 4 Set 1*	I Use tape 5 Set 1*		
Week 2	I Use tape 1 Set 2*	I Use tape 2 Set 2*	I Use tape 3 Set 2*	I Use tape 4 Set 2*	I Use tape 5 Set 2*	F Use 3 tapes from Set 3*	
I = Incremental F = Full Backup * Do not use the same tapes all the time. Rotate the tapes with the extra tapes every other week.							

Note

If at any time an incremental tape is damaged, do a full backup immediately.

If an incremental backup fails, fix the failure and do another incremental backup (for example, tape was write protected).

Recovery Kit

The Recovery Kit is composed of the backup media that the Services organization needs to restore service to your system when problems occur.

Note

Store this kit in a secure location to minimize the time your system is out of service.

The Recovery Kit contains the following:

- Latest cmsadm File System Backup tapes (before and after an upgrade or the routinely run cmsadm backup)
- Latest Full Maintenance Backup tape(s) plus **all** Incremental Backup tapes since the latest full backup
- CentreVu CMS Load Tape (used for the last upgrade and any CentreVu CMS update tapes used at the same time)
- Patching CDs and tapes.

CentreVu CMS Software

Occasionally, the following software (which is shipped with your *CentreVu* CMS) is needed by Services.

Note It is recommended that you store this software with the Recovery Kit. The software you keep depends on the type of platform your CMS runs on.

For *Sun* platform:

- HSI/S 2.0 (for all *Sun SPARCserver* computers having multiple ACDs)
- *INFORMIX*^{*}-SE 5.04
- 1.0 Network Terminal Server
- *Solaris*[†] 2.4
- *SunLink*[‡] X.25 Network Interface Software Version 8.02.
- *Solstice DiskSuite*^{**} (for all *Sun SPARCserver* installations intended to support more than 5200 agents)

For *Intel* Platform:

- WGS SCSI Boot Floppy Version 2.0
- *UNIX* System V/386 Release 4 - Foundation Tape or *Solaris* system version 2.4
- SCSI Support Package
- Foundation Set - Remote Terminal Package
- Megaplex Drivers or IPC-1600 - *UNIX* - Device Drivers - Version 1.X (do **NOT** use Version 2.X)
- 2 to 16 User License Package
- 16 to Unlimited User Package
- Remote Maintenance Circuit Version 2.0 (or Remote Maintenance Package [*UNIX*])
- Off-Line Administration and Maintenance Version 2.0 - *MS-DOS*^{††} (or Remote Maintenance Package [*MS-DOS*])
- 6386/XX WGS Remote Systems Diagnostics

* *INFORMIX* is a registered trademark of Informix Software, Inc.

† *Solaris* is a registered trademark of Sun Microsystems, Inc.

‡ *SunLink* is a registered trademark of Sun Microsystems, Inc.

** *Solstice DiskSuite* is a trademark of Sun Microsystems, Inc.

†† *MS-DOS* is a registered trademark of Microsoft Corp.

- IPC-1600 - MS-DOS Device Drivers and Diagnostics
- SCSI Diagnostics
- RMP Fix
- GPSC-AT/E Diagnostics and Installation Diskette
- *INFORMIX*^{*} SQL.

^{*} INFORMIX is a registered trademark of Informix Software, Inc.

Back Up Data

To restore data accurately because of a disk crash or system failure, regular backups are essential.

By backing up data, you protect your *CentreVu* CMS data against accidental losses due to system failure, disk crashes, power outages, and so forth. You can back up the data separately for each ACD in your system.

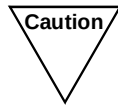
From the Backup Data window, Figure 9-2, you can select the type of backup (Full or Incremental), which ACDs to back up (All or Current), and the types of data to back up. The Back Up Data window does not back up the software which supports the *CentreVu* CMS product.

Since new data are written each day, the data should be backed up regularly. Use a backup strategy appropriate to your call center. Management of the tapes used, storage, security, and labeling the tape (see Labeling the Backup Volume in this section), are key elements in assuring that, if a restore is needed, it can be done quickly and accurately. A sufficient supply of tapes should be kept on hand to rotate the tapes. This allows several backup tapes to be available at all times. One common scheme is to keep seven tapes in stock and recycle them weekly. That is, in an environment where backups are performed daily, a new tape is used each day of the week, and each weekly sequence is repeated.

Things to Know Before You Start

Note If you are using the *CentreVu* CMS console terminal when backing up data and an operating system error occurs, the *UNIX* system/*Solaris* system software displays the error message(s) on the console screen. To clear this message from the console screen, select the Redraw screen menu item from the **Window** SLK.

- Backups run in the background. You can exit the Back Up Data window without affecting the background backup. You should, however, periodically check for any errors or the prompt to mount a new volume.



Running backups while doing archiving may cause performance problems. For best performance, run backups either after archiving has been completed or before archiving begins.

- The *CentreVu* CMS historical data for each ACD should be backed up after the *CentreVu* CMS software has been initially installed and tested.
- You must do a full backup before doing the first incremental backup.
- A full backup once a week will probably require more than one tape, and an incremental backup daily will probably take one tape.
- Backup tapes can wear out. Be sure to refresh your supply of backup tapes at appropriate intervals. For more information, see the documentation that came with your backup tapes.
- It is recommended that you back up system data when it has changed or on a weekly basis.

You should periodically back up the *CentreVu* CMS historical data. The frequency of the backups will depend on how current you want to keep the backup copy of the *CentreVu* CMS historical data and how much data your call center could afford to lose in the event of a catastrophic failure.

- The `Select tables` action item displays a secondary window that allows you to select specific tables to be backed up. You can select as many tables as you wish, but you must exit the Back Up Data Select Tables window, Figure 9-3, and return to the Back Up Data window to run the backup.
- You should have the appropriate number of tapes to be used for the backup. A manual backup (not run from timetable) does an estimate of the number of tapes required for a *full* backup. The Back Up Data window displays an acknowledgment for the number of volumes needed. (Incremental backups should fit on one tape; therefore, no estimate is made.)
 - After the proper acknowledgment (in the Acknowledgment window), a backup can write to any tape except tapes used in the most recent backup.
- You **cannot** back up application software (*CentreVu* CMS, *UNIX* system/*Solaris* system, *INFORMIX*, X.25) using this window. Also, the table definitions for non-CMS *INFORMIX* tables and programs accessed via Main Menu Additions are **not** backed up. A *UNIX* system/*Solaris* system backup should be used instead (see Chapter 10, “*UNIX* System/*Solaris* System — Backing Up *CentreVu*”).

CMS File Systems from the *UNIX* System/*Solaris* System Environment”).

- If you set the Verify backup field to **y**, the system tries to read the data on each volume after the backup finishes writing it. This procedure is relatively fast and ensures that the system can read the data it wrote. If the volume fails verification, you need to rerun the backup using a different volume.
- When you do a backup that completes successfully, without any errors, the following message may display on the system console:

Message:

```
WARNING: ST01:HA 0 TC 3 U 0: ERR 60503005 CMD
00000008 Sense Key 00000003 Ext Sense 00000000.
```

This message means that a new volume (tape, disk, etc.) was used for the backup. Ignore this warning, and press **Ctrl** **L** to refresh the screen.

- You can do a full backup over the most recent full backup volume. You can also do a full backup over an old incremental backup volume. You **cannot** do an incremental backup over your current incremental backup volume, and you **cannot** do an incremental backup over a current full backup volume.
- If you back up the agent login/logout table while agents are logged in, only the login portion will have an entry for the backup. The logout portion of the table will be blank (since the agents have not logged out).

Agent	Login date/time	Logout date/time
Smith, M	2/13/95 8:05AM	

When the login/logout records are restored at a later date, they do not get updated. There will not be a logout date or logout time filled in, even if the agent logs in and out again.

- **List device** displays a list of all the devices which have been specified in the Backup/Restore Devices window.
- While performing a backup, you might receive a message telling you to mount another volume to complete the backup. You also get a message when the backup completes successfully telling you to remove the current volume and label it. See “Labeling the Backup Volume” later in this section.

- While running a normal backup, you could receive any of the following acknowledgments:
 - *CentreVu* CMS cannot access the specified device. Enter a new device name.
 - The volume mounted is bad (corrupt). Mount a new volume.
 - A volume (tape or floppy disk) is not mounted in the drive. Mount a volume.
 - The volume mounted contains *CentreVu* CMS data that you might not want to overwrite. Mount a different volume if you do not want to overwrite the data on the volume in the drive.
 - The volume mounted is the last backup volume. You have to mount a different volume. *CentreVu* CMS does not let you overwrite your last backup.
 - The volume mounted has errors. You are asked to mount another volume.
 - A table cannot be backed up. You are asked if you want to skip the table and continue or cancel the backup.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You need **write** permission for the Maintenance subsystem to Run a backup or to complete any of the maintenance procedures. See Chapter 7, “User Permissions — Feature Access.”
- The storage device used for a backup can be a tape or floppy disk. Names for the individual devices are administered in the Backup/Restore Devices window. These names must be specified before you can do a backup. The default device is the backup device specified during the installation of *CentreVu* CMS, unless you have changed it.

Relationships to Other Subsystems

Timetable

Timetables for an *incremental* and a *full* backup have already been created for you, but you must schedule the incremental or full backup to run. For a full backup, the entire backup may not fit on a single tape. If more than one tape is required, the backup will not finish until additional tape(s) are loaded.

Note

If you do a full backup using Timetable, the backup program assumes the tape is already loaded in the drive. You do not receive a message if the tape contains data other than the most recent backup. You should always check the error log (for example, in the morning) for the volume label (when the backup is finished) or for an error message if the backup fails.

The Back Up Data window can also be used to do a full backup.

System Setup

Pseudo-ACD data are not backed up.

Maintenance

To restore data accurately (using the Restore Data window) after a disk crash or system failure, regular backups are essential.

Back Up Data Window

You must complete the Back Up Data window, Figure 9-2, to back up data. Make sure you have read all the information in this section prior to filling out this window. See Table 9-2 for descriptions of the fields on the Maintenance: Back Up Data window.

Maintenance: Backup Data G3V5_eas

Backups completed today: 0
Status:
Errors:

Device name: default

Verify tape can be read after backup? (y,n): y

ACD(s) to back up (Select one):
<x> All ACDs
<_> Current ACD

Data to back up (Select any you wish):
[x] System administration data
[x] ACD-specific administration data
[x] Historical data,
 Select one:
 <x> Full
 <_> Incremental
[x] Non-CMS data
[_] Specific tables

Cancel
List devices
Run
Select tables

Figure 9-2: Back Up Data Window

Back Up Data
Select Tables

The Back Up Data – Select Tables fields, Figure 9-3, is used to back up specific tables. After you back up these tables, you could create a pseudo-ACD on another machine, load these tables to the pseudo-ACD, and then run a Multi-ACD or Multi-ACD by split report to see data on different ACDs or different splits within several ACDs. You could also send monthly data to another location, then restore that data to a pseudo-ACD, and create specific reports for your upper management.

Note

The tables listed in this window are historical data tables along with some Dictionary tables.

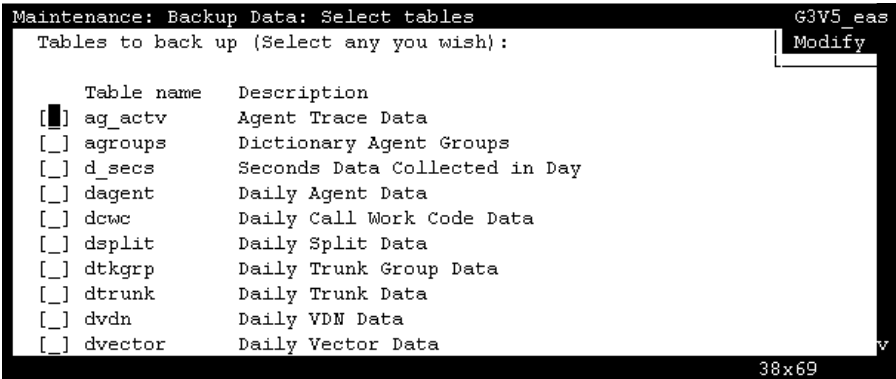


Figure 9-3: Back Up Data: Select Tables

Table 9-2: Back Up Data Field Descriptions

Field	Description
Backups completed today: (Display only)	Displays the number of backups which have been completed for the current day.
Status: (Display only)	Displays the status of the current or most recent backup and what is currently being backed up.
Errors: (Display only)	Displays any errors found in the backup.

Table 9-2: Back Up Data Field Descriptions (Contd)

Field	Description
Device name:	Enter the device name. This field may default to the device specified during the installation process. If this is the case, you can accept the default device name.
Verify volume can be read after backup? (y,n):	Enter y for yes to request that the data be reread to ensure that the data has been stored properly. While the data are being reread, the message Verifying displays on the status line. If there is no data to be reread or if verification fails, you must restart the backup using a different volume from the one that failed. Error messages are displayed on the status or error lines.
ACD(s) to back up (Select one):	Enter an x next to All ACDs or Current ACD to select the ACDs you want backed up. • All ACDs — Complete a data backup for each ACD on the <i>CentreVu</i> CMS system <i>except</i> pseudo-ACDs. • Current ACD — Complete a data backup for the current ACD.
Data to back up (Select any you wish):	System administration data Enter an x if you want system administration data backed up. System administration data includes user permissions and feature access permissions, MainMenu additional data, timetable and shortcut, printer administration, default values and color choices, and custom report definitions (not the data associated with custom reports). ACD-specific administration data Enter an x if you want ACD administration data backed up. ACD-specific administration data include the following: forecast data (if the feature is active), call work code administration data, data storage allocation data, exception administration data, agent trace data (historical list of agents traced), and ACD-specific Dictionary names.

Table 9-2: Back Up Data Field Descriptions (Contd)

Field	Description
Data to back up (contd) (Select any you wish):	Historical data, Select one: Enter an x next to Full or Incremental to select the type of backup. <i>CentreVu</i> CMS tracks the last Full Backup and Incremental Backups. Full A Full Backup includes data for all of the time periods in the historical database. A Full Backup must be done prior to the first Incremental Backup. It is recommended that you periodically (for example, once a week) do a Full Backup of your system. Incremental An Incremental Backup includes the <i>CentreVu</i> CMS data recorded since the last backup (incremental or full) was completed. Only the historical data can be stored incrementally. Administration data is stored in full. A full backup must be done before the first incremental backup is done. Non-CMS data Enter an x if you want non-CMS data backed up. Non-CMS data includes all data from <i>INFORMIX</i> tables with names that start with "c_." The table definitions for non-CMS <i>INFORMIX</i> tables are not backed up. A <i>UNIX</i> system/<i>Solaris</i> system backup should be used instead (see Chapter 10, "<i>UNIX</i> System/<i>Solaris</i> System — Backing Up <i>CentreVu</i> CMS File Systems from the <i>UNIX</i> System/<i>Solaris</i> System Environment"). Specific tables When this field is selected, choose the Select tables action. An additional window displays in which you can specify which selected tables should be backed up. If you select Specific Tables to back up, you cannot make any other selection (for example, System data) in the Data to back up field.
Tables to back up (Select any you wish):	Enter an x to select any of the listed <i>INFORMIX</i> tables whose data you want to back up.

Table 9-2: Back Up Data Field Descriptions (Contd)

Field	Description
Table name	The field displays the designated name of the <i>INFORMIX</i> table.
Description	This field displays the type of data included in the <i>INFORMIX</i> table.

Labeling the Backup Volume

After a successful backup, you need to label your backup volume(s). *CentreVu* CMS provides the tape label information in the final Acknowledgment window, or if the backup was scheduled on a timetable, in the error log.

CMS-NNNNNN-NN-LLL-NN-L-NN
 1 2 3 4 5 6 7
L=Letter
N=Number

1. CMS = System name
2. NNNNNN = Year, month and day of the backup, in the form yymmdd
3. NN = Number of backups for this day

4. LLL = Type of data backed up:
- **A** for both ACD-specific administration data *and* Historical data
 - **C** for Custom data
 - **H** for Historical data
 - **M** for ACD-specific administration data
 - **S** for System data
 - **X** for no backup.

In the 1st position, LLL, an **S** appears if system data was backed up or an **X** appears if system data was not backed up.

In the 2nd position, LLL, an **H**, **M**, **A**, or **X** appears.

In the 3rd position, LLL, enter a **C** or **X** appears.

Any combination of letters identifying the type of backup, may be entered.

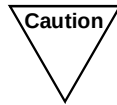
5. NN = Number of the ACD (00 means All ACDs was selected on the Back Up window)
6. L = Backup mode (**F** for Full, **I** for Incremental)
7. NN = The tape number in the backup series (for this backup only)

Restore Data

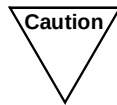
The Restore Data window, Figure 9-4, allows you to restore *CentreVu* CMS data that has been lost due to system failure, disk crashes, power outages, and so forth. You can restore all *CentreVu* CMS data files that you have previously backed up.

From this window, you can select which ACDs to restore (All or Current) and also the *CentreVu* CMS subsystems from which to restore data.

Things to Know Before You Start

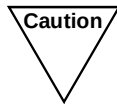


DO NOT start Data Collection until all system and ACD administration data have been restored. You can determine this by the Restore status.



Cancelling a restore leaves the data already restored in the tables, which may result in the database being in an abnormal state. An Acknowledgment window asks if you are sure you really want to cancel the restore.

- To start restoring data, *CentreVu* CMS must be in the single-user mode. As a result, all users except you are logged out of *CentreVu* CMS. *CentreVu* CMS warns all users before going into the single-user state. Also, if you log out of *CentreVu* CMS while in the single-user mode, you must wait at least 10 seconds before logging in again.
- Restore is run as a background task. The `Status` field on the Restore Data window allows you to monitor the status of the restore.



You can bring *CentreVu* CMS to the **multi-user** mode and turn on data collection only when the status line on the window displays `Restoring Historical` data.

- When restoring data using the console terminal and a *UNIX* system/*Solaris* system error occurs, the *UNIX* system/*Solaris* system software displays the error message(s) on the console. To clear this message from the console screen, select the `Redraw` screen menu item from the `Window` screen-labeled key (SLK).

- The `Select tables` action item displays a secondary window, Figure 9-5, that allows you to restore specific historical *INFORMIX* tables. You can select as many tables as you wish, but you must exit this window and return to the Restore window to run the restore.

- Restore operates in two different ways:

- **Restore from last backup** (automatic restore)

An automatic restore is the normal way to restore.

To perform an automatic restore, type `y` in the `Restore from last backup` field.

If you choose to restore from the last backup, the system tells you which volumes to mount to restore the data requested. If Restore asks for a particular tape and you cannot provide it, you must cancel the restore by selecting the cancel action list item, and then rerun the restore manually as described below.

- **Manual restore**

A manual restore is used for problem situations or cases in which you know exactly what needs to be restored.

To perform a manual restore, type `n` in the `Restore from last backup` field. Doing a manual restore gives you full control over what you restore.

A manual restore accepts any tape you mount, as long as the data on the tape corresponds to the data requested in this window (that is, All ACDs, System data, etc.). With this restore, an incremental backup can be omitted or tapes can be skipped. An Acknowledgment window displays to prompt you to mount the next volume or to stop the restore.

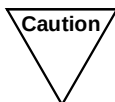
For system data, ACD-specific data, and non-CMS data, the last copy is the most recent backup for the data. For historical data, as long as the backups are together logically, the restore order of *full* or *incremental* should not matter.

The manual restore stops when severe errors occur or when you tell it there are no more volumes to restore.

With a **manual restore**

- You are asked to mount any volume you want.
- After restoring each volume, you are prompted for another volume

- If the volumes are mounted out of order (for example, you have three backup tapes and you load tape 3 before tape 2), you are asked to mount the correct volume. You can restore any specific table (*INFORMIX* tables) from a full backup or from a specific table backup, but not from an incremental backup using a **manual** restore.



If you do not have any more volumes to restore, select **Stop**. **Stop** tells the restore process that you are finished. **Do not select Cancel. Cancel implies an abnormal termination.**

- **List device** displays a list of all the devices which have been specified in the Backup/Restore Devices window.
- During a normal restore, you can receive an acknowledgment for any of the following reasons:
 - *CentreVu* CMS cannot access the specified device.
 - *CentreVu* CMS cannot read the volume.
 - The tape is not a *CentreVu* CMS backup tape.
 - The mounted volume is not compatible with the current database (for example, you receive new *CentreVu* CMS software which is different than your previous *CentreVu* CMS software).
 - *CentreVu* CMS has a problem reading the current volume. You are asked if you want to continue with another volume.
 - *CentreVu* CMS is having a problem restoring a table(s). You are asked if you want to skip this table(s) and continue or stop.
 - At the end of every restored volume, you see how many tables have been restored (fully or partially) (for example, 100 of 100).
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- The Backup/Restore Devices window defines the possible devices used by Restore Data.
If the `List devices` action list item is selected, it displays devices to which you have already assigned names and descriptions using the Backup/Restore Devices window.
- You must have backed up data before you can restore data. For this reason, it is suggested that you frequently complete backups of your system (see the Back Up Data section in this chapter).
- You need **write** permission for the Maintenance subsystem to complete any of the maintenance procedures. See Chapter 7, “User Permissions — Feature Access,” for more information.

Relationships to Other Subsystems

System Setup

You can restore system data (for example, Dictionary, User Permissions, Custom Reports), non-CMS data stored in the *CentreVu* CMS SQL database, and intrahour and summary data (see the System Setup subsystem, Data Storage Allocation window for the parameters).

If you have modified the storage interval size, data collection times, or data storage allocation parameters between the time the backup was done and the time of the restore, the restore may fail due to lack of space. The data restore reflects the values of those parameters **as they were at the time of the backup**. See Chapter 8, “System Setup,” for more information.

Restore Data Window

You must complete the Restore Data window, Figure 9-4, to restore *CentreVu* CMS data. Make sure you have read all the information in this section prior to filling out this window. See Table 9-3 for descriptions of the fields on the Restore Data window.

Maintenance: Restore Data G3V5_eas

Status:
Errors:

Device name: default

Restore from last backup (y,n): n
Restore historical data from:
Start date: _____ Start time: _____

ACD(s) to restore (select one):
<x> All ACDs
<_> Current ACD

Data to restore (Select any you wish):
☒ System administration data
☒ ACD-specific administration data
☒ Historical data
☒ Non-CMS data
☐ Specific tables

Cancel
List devices
Run
Select tables

Figure 9-4: Restore Data Window

Restore Data
Select Tables

The Restore Data – Select Tables fields, Figure 9-5, is used to restore selected tables. Using specific tables allows you to restore only the data that you deem necessary for your call center. See Table 9-3 for descriptions of the fields on the Restore Data window.

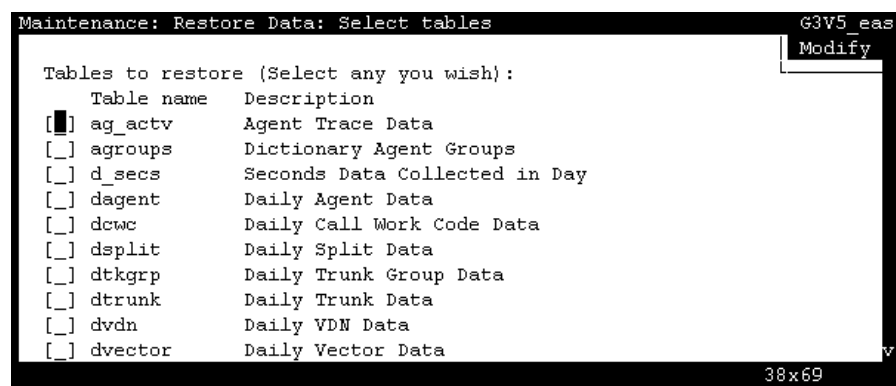


Figure 9-5: Restore Data Select Tables Window

Table 9-3: Restore Data Field Descriptions

Field	Descriptions
Status: (Display only)	Displays the status of the current or most recent restore. You can bring <i>CentreVu</i> CMS to the multi-user mode when the status line on the window displays Restoring Historical data
Errors: (Display only)	Displays any errors found in the restore.
Device name:	Enter the device name. This field may default to the device specified during the installation process. If this is the case, you can accept the default device name.

Table 9-3: Restore Data Field Descriptions (Contd)

Field	Descriptions
Restore from last backup (y,n):	If you select y for this field, the data are restored from the most current backup. This is called an automatic restore. If you select n for this field, the data are restored from whatever tapes correspond to the restore selections indicated in this window. A “no” selection is called a manual restore. Whenever Restore asks for a volume to be mounted, you can change the device name if the volume requires a different device (for example, if you have the full backup on tape and the incremental on floppies).
Restore historical data from: Start date: _____ Start time: _____	Specify the date and time to limit the historical data to be restored. Enter a date as either mm/dd/yy or use a “-” offset based on today. Enter a time in the hh: XM or hh:mm XM format. If AM or PM is not specified, 24-hour clock time is assumed. Multiple values are not allowed in the Start date and Start time fields.
ACD(s) to restore (Select one):	All ACDs Restore data from the specified backup tapes for all ACDs on the <i>CentreVu</i> CMS system. Current ACD Restore data from the specified backup tapes for the current ACD on the <i>CentreVu</i> CMS system.

Table 9-3: Restore Data Field Descriptions (Contd)

Field	Descriptions
Data to restore (Select any you wish):	System administration data Enter an x if you want system administration data restored. System administration data consists of user permissions and feature access permissions, MainMenu additions data, exception administration data, timetables and shortcuts, printer administration, default values and color choices, custom report definitions (not the data associated with custom reports). ACD-specific administration data Enter an x if you want to restore any of the following ACD-specific data: forecast administration data (if the feature is active), call work code administration data, VDN data, data storage allocation administration data, and Dictionary names. Historical data A restore from a full backup includes data for all the time periods in the historical database. A restore from an incremental backup includes the <i>CentreVu</i> CMS data recorded since the last backup (incremental or full) was completed. Non-CMS data Enter an x if you want non-CMS data restored. Non-CMS data includes all <i>INFORMIX</i> tables with names that start with "c_". Note: The table definitions for non-CMS <i>INFORMIX</i> tables are not backed up and, therefore, are not restored. A <i>UNIX</i> system/<i>Solaris</i> system backup should be used first and then restored (see Chapter 10, "<i>UNIX</i> System/<i>Solaris</i> System — Backing Up <i>CentreVu</i> CMS File Systems from the <i>UNIX</i> System/<i>Solaris</i> System Environment").

Table 9-3: Restore Data Field Descriptions (Contd)

Field	Descriptions
Data to restore (Select any you wish): Contd	Specific Tables This field is automatically selected when you select the action list item <i>Select tables</i> to specify which tables should be restored. If you select <i>Specific Tables</i> to be restored, you cannot make any other selection (for example, <i>System data</i>). In the case of a disk crash or something that completely corrupts the tables, you must first re-create the skeleton of any <i>CentreVu</i> CMS tables you want to restore, because the restore process does not re-create the tables.
Tables to restore (Select any you wish):	Enter an x to select any of the listed <i>INFORMIX</i> tables for which you want to restore data.
Table name	This field displays the designated name of the <i>INFORMIX</i> table.
Description	This field displays the type of data included in the <i>INFORMIX</i> table.

Backup/Restore Devices

The Backup/Restore Devices window, Figure 9-6, allows you to assign a name and description to a full path name for a device. The device name is used for data backup, data migration, data restore, and for loading a pseudo-ACD.

Things to Know Before You Start

- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You need **write** permission for the Maintenance subsystem to complete any of the maintenance procedures. See Chapter 7, “User Permissions — Feature Access.”
- You can list devices with **read-only** permission.

Relationships to Other Subsystems

Maintenance — Back Up Data and Restore Data windows

If you want information to display in the Back Up Data and Restore Data windows when using the `List device` action list selection, you must administer the device names and device attributes in this window.

Backup/Restore Devices Window

You must complete the Backup/Restore Devices window, Figure 9-6, to assign a name and description to a full path name for a device. See Table 9-4 for descriptions of the fields on the Maintenance: Backup/Restore Devices window.

Figure 9-6: Backup/Restore Devices Window

Table 9-4: Backup/Restore Devices Field Descriptions

Field	Description
Device Name:	Enter a name you will use to refer to the device. For example, if you would like to refer to your storage device as <code>ddrive1</code> , enter <code>ddrive1</code> as the device name.
Path:	Enter the full <i>UNIX</i> system/ <i>Solaris</i> system path to access the specified storage device (for example, <code>/dev/scsi/qtape1</code>). The <i>UNIX</i> system/ <i>Solaris</i> system devices are described in your <i>UNIX</i> system/ <i>Solaris</i> system Administrator's Guide.
Description:	Enter a description that will help to identify the location or use of the storage device. For example, tape drive B in computer room 221.

Table 9-4: Backup/Restore Devices Field Descriptions (Contd)

Field	Description
Device type (Select one) :	< > SCSI cartridge tape - 60MB < > SCSI cartridge tape - 150 MB < > SCSI cartridge tape - 2.5 GB < > SCSI cartridge tape - 5 GB < > SCSI cartridge tape - 14 GB Enter an x in the window next to the appropriate device type. Choose the correct capacity for your SCSI tape drive so that the approximation of the number of tapes needed for a full backup is accurate. Choosing the incorrect capacity does not affect the backup or restore operation or actual tape capacity.

Printer Administration

You can assign a name, description, and some options to a printer in the Printer Administration window, Figure 9-7. The printer then becomes known by *CentreVu* CMS and can be used for printing any *CentreVu* CMS report or window.

Things to Know Before You Start

- A printer that will be used as a *CentreVu* CMS printer must be administered in the *UNIX* system/*Solaris* system **before** the *CentreVu* CMS printer name can be added or modified. See the *CentreVu™ CMS R3V5 Sun® SPARCserver™ Computers Installation and Maintenance* (585-215-827) document (if you have a *Sun* platform) or the *CMS R3V2 Installation and Maintenance* (585-215-122) document (if you have an *Intel* platform), for guidelines and procedures on printer installation.
 - The *CentreVu* CMS printer name must be unique when a new printer is added. However, the same physical printer could have multiple names and options.
 - All jobs initiated at the *CentreVu* CMS go to the default printer unless another printer is specified.
 - If print jobs are being sent to a printer that is no longer administered, the jobs print on the system default printer and an error is logged to the Customer Error log.
 - If you try to **Delete** a printer name which is assigned to users, you receive an acknowledgment asking if you still want to delete the printer. Print jobs are sent to the system default printer if you delete the printer.
 - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
-

Prerequisite System Administration

- You need **read** permission for the Maintenance subsystem to view printer administration. See Chapter 7, “User Permissions — Feature Access.”
- You need **write** permission for the Maintenance subsystem to add, delete, or modify printer administration. See Chapter 7, “User Permissions — Feature Access.”

Relationships to Other Subsystems

Reports

A *CentreVu* CMS printer name can be used as the default printer in the Report destination field on any historical reports.

Printer Administration Window

You must complete the Printer Administration window, Figure 9-7, to assign a name, description, and some printer options to a printer. The printer can then be used by *CentreVu* CMS for printing any report or window. See Table 9-5 for descriptions of the fields on the Maintenance: Printer Administration window.

Maintenance: Printer Administration

G3V5_eas

CMS printer name:

LP printer name:

Description:

IBM graphics characters (y/n):

Lines per page:

Print type (Select one):
☒ Normal
☐ Other,

Banners (y/n):

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 9-7: Printer Administration Window

Table 9-5: Printer Administration Field Descriptions

Field	Description
CMS printer name:	Enter a unique name for this printer. If you want to change the <i>CentreVu</i> CMS printer name you must first <i>delete the printer name and add a new one</i> . You cannot change this field by selecting the modify action. If you attempt to use Modify, you receive an error message stating does not exist.

Table 9-5: Printer Administration Field Descriptions (Contd)

Field	Description
LP printer name:	Enter the LP (<i>UNIX</i> system/<i>Solaris</i> system printer) printer name that corresponds to the CMS printer name. This printer must have been previously administered in the <i>UNIX</i> system/<i>Solaris</i> system before the CMS printer name can be added or modified. See the <i>CentreVu™ CMS R3V5 Sun® SPARCserver Computers Installation and Maintenance</i> (585-215-827) document (if you have a <i>Sun platform</i>) or the <i>CMS R3V2 Installation and Maintenance</i> (585-215-122) document (if you have an <i>Intel</i> platform) for guidelines and procedures.
Description: (Optional)	Enter a description for the printer. This could be the physical location of the printer.
IBM graphics characters (y/n): (Default is no.)	Enter a y for yes if your printer has IBM graphics characters. Otherwise, leave this as n for no.
Lines per page: (Default is 66 lines.)	Enter the number of lines that will fit on a page. <i>CentreVu</i> CMS formats reports to correspond to the number of lines per page.
Print type (Select one): (Default is Normal.)	Enter an x next to Normal or Other. After Other, you can specify a print type like "pica," "elite," or "compressed."
Banners (y/n): (Default is no.)	Enter a y for yes if you want banners. A banner is a piece of paper that separates different printer jobs.

Connection Status

You are able to monitor the data link between the *CentreVu* CMS processor and the switch from the Connection Status window, Figure 9-8. This window also displays the current status of the application, session, and connection layers of the link between the switch and *CentreVu* CMS.

Things to Know Before You Start

- You must complete the ACD field to view and monitor the data link between the *CentreVu* CMS processor and the switch.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You need **read** permission for the Maintenance subsystem to view the Connection Status window. See Chapter 7, “User Permissions — Feature Access.”

Connection Status Window

Fill out the ACD field in the Connection Status window, Figure 9-8, to monitor a data link. See Table 9-6 for descriptions of the fields on the Maintenance: Connection Status window.



Figure 9-8: Connection Status Window

Table 9-6: Connection Status Field Descriptions

Field	Description
ACD(s) :	Enter the number or name of the ACD(s) for which you would like to check the connection status.
Application: (Display only)	The current status of the application layer of the link between the switch and <i>CentreVu</i> CMS. Possible status messages for the Application: field are as follows: waiting session Indicates that the Application layer is inactive. This is the state of the Application layer when the system is first powered on. translation pumpup Indicates that the <i>CentreVu</i> CMS processor is receiving translations from the switch. Translations are needed for <i>CentreVu</i> CMS to correctly track the ACD calls coming from the switch. data transfer Indicates that the Application layer can receive and transmit data successfully. not collecting data Indicates that data collection has been turned off using the Data Collection window (see Chapter 8, “System Setup—Data Collection”). This is done if the link needs to be taken down to alter <i>CentreVu</i> CMS. To resume data collection, go to the Data Collection window in the System Setup subsystem and turn on data collection. busied out (switch) Indicates that the data link between the <i>CentreVu</i> CMS processor and the switch has been busied out from the switch side, usually to alter switch translations.

Table 9-6: Connection Status Field Descriptions (Contd)

Field	Description
Session: (Display only)	The current status of the session layer of the link between the switch and the <i>CentreVu</i> CMS. Possible status messages for the <code>Session:</code> field are as follows: quiescent Indicates that the Session layer is inactive. This is the state of the Session layer when the system is first powered on. waiting acceptance Indicates that the Session layer is waiting for the connection layer to become operational and the remote Session layer to accept the session. data transfer Indicates that the Session layer is now able to transmit and receive data from the switch.
Connection: (Display only)	The current status of the connection layer of the link between the switch and the <i>CentreVu</i> CMS. Possible status messages for the <code>Connection:</code> field are as follows: quiescent Indicates that the Connection is inactive. This is the state of the Connection when the system is first powered on. out of order Indicates that there is something wrong with the connection to the switch. For example, the cable is not connected between the switch and the <i>CentreVu</i> CMS processor. operational Indicates that the Connection is able to transmit information physically between the switch and the <i>CentreVu</i> CMS processor. waiting session accept Indicates that the link is down.

Table 9-6: Connection Status Field Descriptions (Contd)

Field	Description
Date/Time: (Display only)	The Date/Time: field displays the current date/time for this ACD, unless the link to the ACD is down when <i>CentreVu</i> CMS is brought up. If <i>CentreVu</i> CMS is brought up and the link to the ACD is down, <i>CentreVu</i> CMS uses the <i>UNIX</i> system/ <i>Solaris</i> system time until the link is reestablished.
Errors: (Display only)	Displays any errors found.

ACD Status

The ACD Status window displays information about the current ACD selected in the window. From this window, you can view the various items which *CentreVu* CMS is measuring. Among these items are the number of splits or skills, agents logged in, trunk groups, trunks, VDNs, vectors, and measured splits.

Two ACD Status windows are available. If your switch *does not* have Expert Agent Selection (EAS), the window shown in Figure 9-10 displays. If your switch *does* have EAS, the window shown in Figure 9-9 displays.

Things to Know Before You Start

- When the `Translations` action list selection is made, *CentreVu* CMS requests a full set of translations if data collection for the ACD is on. An Acknowledgment window indicates that data will be lost during the translations pumpup. The Acknowledgment window asks if you would like to proceed. If the link to the switch is not up when you request the translations, the status line shows `Failed`, and the actual error message is listed in the `Errors` field in the window.

Note The `Translations` action list item cannot be used for a pseudo-ACD, since it has no connection to a switch.

- If either the `Find one` or `List all` action list item is selected and the ACD's link to the switch is down, the `Errors` field displays the link status.
- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You need **read** permission for the Maintenance subsystem to view the ACD Status window. See Chapter 7, "User Permissions — Feature Access."
- You need **write** permission for the Maintenance subsystem to complete any of the maintenance procedures. See Chapter 7, "User Permissions — Feature Access."


```

Maintenance: ACD Status
G3V5_eas
Find one
List all
Next
Previous
Translations
ACD(s):
CMS is measuring:
Skills:
Skill members in use:
Trunk groups:
Trunks:
VDNs:
Vectors:
Errors:
18x76

```

Figure 9-9: ACD Status Window (EAS)

ACD Status Window, Non-EAS

```

Maintenance: ACD Status
ACD(s):komodo4_g3
CMS is measuring:
  Splits: 5
  Total split members: 100
  Split members in use: 100
  Trunk groups: 6
  Trunks: 200
  VDNs: 5
  Vectors: 512
  Measured Splits: ____
Errors:

```

Find one
List all
Next
Previous
Translations

```

Successful

```

Figure 9-10: ACD Status Window (Non-EAS)

Table 9-7: ACD Status Field Descriptions

Field	Description
ACD(s) :	Enter the ACD name or number whose status you would like to check.
Non-EAS CMS is measuring: (Display only) Splits: (Display only) Total split members: (Display only) Split members in use: Trunk groups: (Display only) Trunks: (Display only) VDNs: (Display only) Vectors: (Display only) Measured splits: Errors: (Display only)	• The number of splits currently being measured by <i>CentreVu</i> CMS. • The number of agent/split pairs that can be logged in to this ACD. • The number of agent/split pairs currently logged in (at the time the ACD Status window was opened). • The number of trunk groups currently being measured by <i>CentreVu</i> CMS. • The number of trunks currently being measured by <i>CentreVu</i> CMS. Unmeasured trunks are not included. • The number of VDNs currently being measured on this ACD. • The number of vectors available to be used in the selected ACD. • Enter the number of measured splits. This field appears only if the ACD is a System 85 or Generic 2 switch. This field is used to change the number of measured splits in the selected ACD and to determine which splits are being measured if the switch is a System 85 or Generic 2.1. If these switches are being used, the measured splits are the number that is displayed; and to change the number of measured splits for these switches, you must enter the new number and select the Translations action list item. • Displays any errors found.

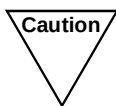
Table 9-7: ACD Status Field Descriptions (Contd)

Field	Description
EAS CMS is measuring: (Display only)	
Skills: (Display only)	• The number of skills currently being measured by <i>CentreVu</i> CMS.
Skill members in use:	• The number of agent/skill pairs currently logged in (at the time the ACD Status window was opened).
Trunk groups: (Display only)	• The number of trunk groups currently being measured by <i>CentreVu</i> CMS.
Trunks: (Display only)	• The number of trunks currently being measured by <i>CentreVu</i> CMS. Unmeasured trunks are not included.
VDNs: (Display only)	• The number of VDNs currently being measured on this ACD.
Vectors: (Display only)	• The number of vectors available to be used in the selected ACD.
Errors: (Display only)	• Displays any errors found.

Archiving Status

Use the Archiving Status window, Figure 9-11, to display the status, date, and time of the last archive for interval, daily, weekly, and/or monthly data.

Things to Know Before You Start



Before running a *weekly* archive, **be sure** a *daily* archive has been run. (This includes ensuring the timetable allows daily archiving to complete before running weekly and monthly archiving.)

- This information can help you decide when to turn off data collection or change your archiving times without losing data.
- You can have any one of the following archiving status indications:
 - **Finished:** The last archive ran. See error log to determine if it succeeded or failed.
 - **Running:** The archive is currently running.
 - **Not run:** An archive of this type (interval, daily, weekly, or monthly) has never run for this ACD.
- Archive means the *CentreVu* CMS is storing your interval, daily, weekly, and monthly data in the appropriate *CentreVu* CMS database tables.

Prerequisite System Administration

- You need **read** permission for the Maintenance subsystem to view the Archiving Status window. See Chapter 7, “User Permissions — Feature Access.”

Archiving Status Window

You must select the **List all** action item on the Archiving Status window, see Figure 9-11, to view the last archiving status for interval daily, weekly, and/or monthly data. See Table 9-8 for descriptions of the fields on the Maintenance: Archiving Status window.

Figure 9-11: Archiving Status Window

Archiving Status: List All Window

The Archiving Status List all window, Figure 9-12, displays the ACD name or number, archiving type, status, date, and time for the last archive. The date and the time fields show the date and time that the next archive is scheduled for daily, weekly, and monthly archives. The next scheduled time for interval archives is shown as a blank, but interval archiving always occurs at the beginning of the next interval.

ACD	Arch. type	Status	Date	Time	Next Scheduled	
G3V5_eas	Interval	Finished	6/17/96	3:30 PM		
G3V5_eas	Daily	Finished	6/17/96	12:37 AM	6/18/96	12:3
G3V5_eas	Weekly	Finished	6/16/96	2:35 AM	6/23/96	2:3
G3V5_eas	Monthly	Finished	6/ 3/96	8:02 AM	7/ 1/96	4:3
g3v4_eas	Interval	Finished	6/17/96	3:37 PM		
g3v4_eas	Daily	Finished	6/17/96	12:37 AM	6/18/96	12:3
g3v4_eas	Weekly	Finished	6/16/96	2:35 AM	6/23/96	2:3
g3v4_eas	Monthly	Not run			7/ 1/96	4:3
10	Interval	Not run				
10	Daily	Not run				

Successful 14x85 >

Figure 9-12: Archiving Status

Table 9-8: Archiving Status Field Descriptions

Field	Description
ACD(s):	Enter the ACD name or number for which you want to view archiving status.
Archiving type (Select any you wish):	All archiving status types will be selected by default for viewing. To remove an archiving type you must blank out the x adjacent to the archiving type that you do NOT want to view.
Status:	Displays the archiving status of the ACD.
Date:	Displays the date the last archive completed for the ACD.
Time:	Displays the time the last archive completed for the ACD.
Next Scheduled:	Displays the date and time of the next-scheduled archive.

Error Log Report

Introduction

The Error Log Report displays a chronological list of warnings, information, and errors detected by *CentreVu* CMS. The main purpose of the error log is to aid you in working on system problems and to aid Services personnel in clearing problems in your system. Services can be reached through the Lucent Technologies National Customer Care Center at 1-800-242-2121.

The errors stored in the error log are classified as follows:

ALARM	An error which could cause the system to crash or fail. This type of error requires you to work with Services to avoid the possibility of system failure.
ERROR	An error which requires immediate attention. For example, this type of error could result from a backup not working properly, and you would need to begin the backup process again.
INFO	Information which does not require immediate action but is listed to let you know that some aspect of the system is not operating correctly or provides the status of an operation, for example, that forecast manager ran successfully.

How This Section is Organized

This section gives a brief description of the Error Log Report, an example of the report input window, and definitions of the input fields. It provides you with the information you need to complete the Error Log Report input window.

Things to Know Before You Start

- The Error Log can contain up to 500 entries. When the Error Log reaches 500 records, the log rolls over. The oldest record is overwritten by the newest record.
- The Error Log report displays the entries in a reverse time order. In other words, the most recent entry is displayed first. You are able to search on an error code or severity.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- You need **read** permission for the Maintenance subsystem to display the error log. See Chapter 7, “User Permissions—Feature Access.”

Relationships to Other Subsystems

System Setup

If *CentreVu* CMS is down when a Data Summarizing timetable is scheduled to run, an error message is logged which directs you to do a manual archive from the Data Summarizing window.

The results of daily, weekly, and monthly data summaries are written to the error log. You can use the Error Log report to see when the summaries ran and whether or not they were successful.

Forecast

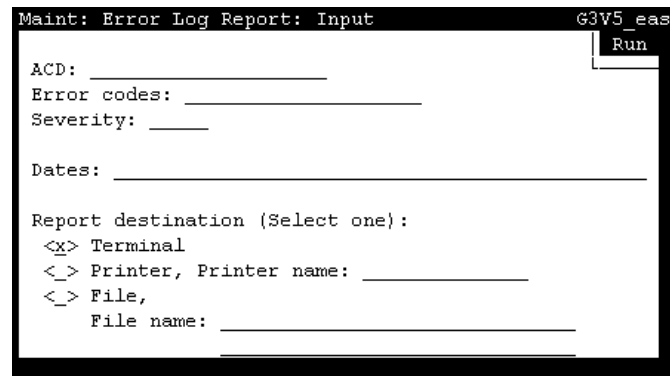
You can use the Error Log report to get the status of the Forecast manager.

Maintenance

You can use the Error Log report to get the status of backups and/or archiving that completed without a backup/archiving status window open.

Error Log Report: Input Window

You must complete the Error Log Report: Input window, Figure 9-13, to view the Error Log Report. See Table 9-9 for descriptions of the fields on the Error Log Report: Input window.



```

Maint: Error Log Report: Input      G3V5_eas
Run
ACD: _____
Error codes: _____
Severity: _____
Dates: _____

Report destination (Select one):
<X> Terminal
<_> Printer, Printer name: _____
<_> File,
    File name: _____
  
```

Figure 9-13: Error Log Report: Input Window

Table 9-9: Error Log Report: Input Field Descriptions

Field	Description
ACD:	Enter the name or number of the ACD for which you would like to view the error log.
Error codes: (Optional)	Enter unique identifiers that are associated with each error. This allows you to refer to a specific error when dealing with Services personnel or your own departmental hierarchy. This field is used to create a report with only those errors you are interested in. If you leave the field blank, all errors will be displayed.
Severity: (Optional)	Enter the severity of the error <i>in all capital letters</i> (ALARM, ERROR, or INFO). This allows you to create a report with only those errors with a given severity.
Dates:	Enter the dates for which you would like the error log to display logged errors. The dates may be entered in the same format as for other reports.

Table 9-9: Error Log Report: Input Field Descriptions (Contd)

Field	Description
Report destination (Select one):	Enter an x next to Terminal, Printer, or File. • Terminal is the default destination. • If you selected Printer and want to use a printer other than your default printer, enter the printer name in addition to the x. • If you selected File, enter a file name. If the file name already exists, the existing file is overwritten with the new report data. The file is in your home directory in the <i>UNIX</i> system/<i>Solaris</i> system (/usr/<your login ID>) unless you specify a full path name.

Report Example

Maintenance: Error Log Report						G3V5 eas
Error Log Report						
Printed: 6/17/96 3:47 PM						
Error Code	Date Occurred	Time Occurred	# Times Occur	ACD	Severity	
2600	6/17/96	12:37 AM	1	1	INFO	
ARCHIVER status: Daily Archive for (Sun) Jun. 16, 1996 Successful						
2600	6/16/96	2:35 AM	2	1	INFO	
ARCHIVER status: Weekly Archive for week (Sun) Jun. 09, 1996 through (Sat) Jun. 15, 1996 Successful						
2600	6/16/96	12:37 AM	1	1	INFO	
ARCHIVER status: Daily Archive for (Sat) Jun. 15, 1996 Successful						
Successful						216x73

Figure 9-14: Maintenance Error Log Report

Maintenance Error Log Report Field Descriptions

Table 9-10: Maintenance Error Log Report Description

Report Heading	Description
Error Code	Displays the unique identifier which associates the recorded error with a particular instance. This unique identifier allows you to identify each instance of the error when discussing the error with Services personnel or other <i>CentreVu</i> CMS administrators.
Date Occurred	Displays the date that the error occurred. The date is displayed in the MM/DD/YY format.
Time Occurred	Displays the time that the error last occurred. The time is displayed in the xx:xx xM format.
# Times Occur	Displays the number of times that this error has occurred on this day.
ACD	Displays the ACD number for which the error occurred. If you are not using a multi-ACD environment, this field always displays the same ACD number.
Severity	Displays the registered severity of the error code in capital letters (ALARM, ERROR, or INFO).

Error Log Messages

Error Codes

The error codes and related messages are listed numerically. Each error is listed in bold type and represents the error code portion of the message followed by related information describing the reason for the error. In most cases, the action to fix the error is listed with the error message; if it is not, see the *What to Do?* section under the error message.

Note If you see a reference to a **task number** in the error log, mention this number to services when you call. The number is internal to *CentreVu* CMS.

Table 9-11: Error Codes and Messages

Error Code	Message/Reason/Action
500	UNIX error on OPEN, file: <i>Reason</i> —This error is logged when a <save> has been done on a timetable and the timetable is unable to write the changes. <i>What to Do?</i> —Remove any unneeded user files in <i>/cms</i> . Call Services.
505	UNIX error on WRITE, file: File system may be out of space. <i>Reason</i> —The Set dest destination was a file, but the file could not be written completely. <i>What to Do?</i> —Delete files that are not needed from disk (or copy to tape and then delete). Call Services.
505	UNIX error on WRITE, file: SIGPIPE signal caught during printing, print request is incomplete or failed. <i>Reason</i> —Could not print a file. <i>UNIX</i> * probably does not have a default system line printer assigned, and the user probably does not have a <i>CentreVu</i> CMS default printer assigned. <i>What to Do?</i> —Assign a default printer to the user through User Permissions.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
505	UNIX error on WRITE, file: lp. The user may have no default printer assigned and the UNIX(r) system administration for a default system line printer has not been done. <i>Reason</i>—Could not print a file. <i>UNIX</i> probably does not have a default system line printer assigned, and the user probably does not have a <i>CentreVu</i> CMS default printer assigned. <i>What to Do?</i>—Assign a default printer to the user through User Permissions.
555	UNIX error on EXEC Couldn't execute the following command: <command>. <i>Reason</i>—The system is too busy for the command to be processed. <i>What to Do?</i>—Call Services.
555	UNIX error on EXEC CMS couldn't run because crt_io_man wouldn't execute. <i>Reason</i>—The system is too busy for the command to be processed. <i>What to Do?</i>—Call Services.
556	UNIX error on FORK: CMS couldn't run because the system was too busy. <i>Reason</i>—System is too busy for command to be processed. <i>What to Do?</i>—Try again. If second attempt fails, try <code>ps -ef</code> to see what processes are running on the system. Kill any processes that are not necessary but are using up large amounts of CPU time. Call Services.
556	UNIX error on FORK: UNIX process limit exceeded, system is too busy. <i>Reason</i>—<i>CentreVu</i> CMS was unable to start a process. This will usually occur if a user has logged into <i>CentreVu</i> CMS on many terminals at once. <i>What to Do?</i>—Make sure each user logs in on only one <i>CentreVu</i> CMS terminal at a time. If this message occurs when timetables are running, try adjusting the start times of the timetables so that fewer are running simultaneously. If it occurs when running Main Menu Additions, try rewriting the Main Menu Additions to use fewer simultaneous <i>UNIX</i> processes. Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
556	UNIX error on FORK Call records not being sent. Call Services. <i>Reason</i>—The process for transferring external call records could not be started. <i>What to Do?</i>—Call Services.
557	UNIX call error: UNIX process limit exceeded. System is too busy. <i>Reason</i>—This error message is logged when you delete a user or you are adding a user. This error message is usually logged as a result of a severe problem that services needs to solve. <i>What to Do?</i>—Try stopping <i>CentreVu</i> CMS and restarting it. Call Services.
557	UNIX call error: uucp failed. <i>Reason</i>—The uucp file transfer mechanism for the External Call Records feature has failed. <i>What to Do?</i>—The system automatically retries the transfer. If it fails repeatedly, Call Services.
1001	UNIX error on NEW Agent upper bound has been reached. You have administered more Agent Exceptions than are allocated. You must either delete unneeded exceptions or allocate more space in System Setup—Data Storage Allocation. <i>Reason</i>—The exception distributor process is attempting to log more agent exceptions than will fit in the storage space allocated for them. <i>What to Do?</i>—Reduce number of active exception conditions or allocate more space for exceptions in System Setup—Data Storage Allocation. Call Services.
1001	UNIX error on NEW Split upper bound has been reached. You have administered more Split Exceptions than are allocated. You must either delete unneeded exceptions or allocate more space in System Setup—Data Storage Allocation. <i>Reason</i>—The exception distributor process is attempting to log more split exceptions than will fit in the storage space allocated for them. <i>What to Do?</i>—Delete unneeded exceptions or allocate more space in System Setup—Data Storage Allocation. Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1001	UNIX error on NEW Trunk group upper bound has been reached. You have administered more Trunk Group Exceptions than are allocated. You must either delete unneeded exceptions or allocate more space in System Setup–Data Storage Allocation. <i>Reason</i>—The exception distributor process is attempting to log more trunk group exceptions than will fit in the storage space allocated for them. <i>What to Do?</i>—Delete unneeded exceptions or allocate more space in System Setup—Data Storage Allocation. Call Services.
1001	UNIX error on NEW VDN upper bound has been reached. You have administered more VDN Exceptions than are allocated. You must either delete unneeded exceptions or allocate more space in System Setup–Data Storage Allocation. <i>Reason</i>—The exception distributor process is attempting to log more VDN exceptions than will fit in the storage space allocated for them. <i>What to Do?</i>—Delete unneeded exceptions or allocate more space in System Setup—Data Storage Allocation. Call Services.
1001	UNIX error on NEW Vector upper bound has been reached. You have administered more Split Exceptions than are allocated. You must either delete unneeded exceptions or allocate more space in System Setup–Data Storage Allocation. <i>Reason</i>—The exception distributor process is attempting to log more vector exceptions than will fit in the storage space allocated for them. <i>What to Do?</i>—Delete unneeded exceptions or allocate more space in System Setup—Data Storage Allocation. Call Services.
1050	INFORMIX SQL syntax error: syntax error near ' <text information> <i>Reason</i>—The given SQL command is syntactically incorrect. Usually more details of the error are included. This error is usually reported via a custom report and is corrected there. <i>What to Do?</i>—Correct the SQL statement in the custom report.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1053	INFORMIX insert error: Agent Trace data not being stored. Call Services. <i>Reason</i>—An internal error or a full file system is preventing data from being inserted into the <code>ag_actv</code> database table. <i>What to Do?</i>—Make sure that there is enough room in the file system that holds the table.
1100	IPC error on messages: message queue is NN% full. <i>Reason</i>—A <code>UNIX</code> message queue is more than 75 percent full. Each message queue is checked approximately once every two minutes. If this message is repeatedly logged, <i>CentreVu</i> CMS is in danger of losing messages that may result in loss of customer data. <i>What to Do?</i>—Single occurrences of this message can be ignored. If it happens repeatedly, call Services for assistance. In order to try to reduce the chances of losing data, reduce your <i>CentreVu</i> CMS usage while this message is being logged. If this message occurs while you are doing a <i>CentreVu</i> CMS backup, try doing the backup during a less busy period.
1302	PROCESS COMMUNICATIONS (PO) library error, function: ERROR - <HARCH> receiving too many exceptions too fast. Some exceptions have been discarded. Reduce the number of active exceptions or change thresholds so that fewer exceptions are triggered. <i>Reason</i>—Exceptions are being generated faster than the interval archiver process can handle them. This is the result of having too many exceptions activated, or having thresholds set to produce too many exceptions. <i>What to Do?</i>—Reduce the number of active exceptions or change thresholds so that fewer exceptions are triggered.
1302	PROCESS COMMUNICATIONS (PO) library error, function: ERROR - <IDBM> receiving too many exceptions too fast. Some exceptions have been discarded. Reduce the number of active exceptions or change thresholds so that fewer exceptions are triggered. <i>Reason</i>—Exceptions are being generated faster than the intermediate database manager interface process can handle them. This is the result of having too many exceptions activated, or having thresholds set to produce too many exceptions. <i>What to Do?</i>—Reduce the number of active exceptions or change thresholds so that fewer exceptions are triggered.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1302	PROCESS COMMUNICATIONS (PO) library error, function: ERROR - <SPI> receiving too many exceptions too fast. Some exceptions have been discarded. Reduce the number of active exceptions or change thresholds so that fewer exceptions are triggered. <i>Reason</i>—Exceptions are being generated faster than the switch interface process can handle them. This is the result of having too many exceptions activated, or having thresholds set to produce too many exceptions. <i>What to Do?</i>—Reduce the number of active exceptions or change thresholds so that fewer exceptions are triggered.
1350	GENERAL error internal to process: Unable to successfully complete archiving. <i>Reason</i>—Unable to initialize <i>CentreVu</i> CMS environment. <i>What to Do?</i>—Reinitiate Data Summarizing. Call Services.
1350	GENERAL error internal to process: flood_thr. <i>Reason</i>—Problem setting up threshold for number of messages received from post office. Archiver processing continues. <i>What to Do?</i>—Monitor <i>elog</i> and determine if the problem exists on the next execution of Archiver. Call Services.
1350	GENERAL error internal to process: Failure in agent exception database table. Agent exception data not being stored. Call Services. <i>Reason</i>—Unable to insert rows in the agent exception (agEx) table. The error occurs when the file system holding the agent exception table is full. No more agent exceptions can be recorded until the problem is corrected. <i>What to Do?</i>—Move the Exceptions tables (or other historical data tables) to a different file system with more space available via the Free Space Allocation screen, or reduce the number of exception records being saved. Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1350	GENERAL error internal to process: Failure in link exception database table. Link exception data not being stored. Call Services. <i>Reason</i>—Unable to insert rows to the link exception (linkex) table. The error code occurs when the disk partition holding the link exception table is full. No more link exceptions can be recorded until the problem is corrected. <i>What to Do?</i>—Move the linkEx table to a different disk partition. Call Services.
1350	GENERAL error internal to process: Failure in malicious call trace exception database table. MCT exception data not being stored. Call Services. <i>Reason</i>—Unable to insert rows in the MCT exception (mctex) table. The error occurs when the disk partition holding the MCT exception table is full. No more MCT exceptions can be recorded until the problem is corrected. <i>What to Do?</i>—Move the Exceptions tables or other historical data tables to a different file system with more space via the Free Space Allocation screen, or reduce the number of exception records being saved. Call Services.
1350	GENERAL error internal to process: Failure in split exception database table. Split exception data not being stored. Call Services. <i>Reason</i>—Unable to insert rows in the split exception (spex) table. The error occurs when the disk partition holding the split exception table is full. No more split exceptions can be recorded until the problem is corrected. <i>What to Do?</i>—Move the Exceptions tables or other historical data tables to a different file system with more space via the Free Space Allocation screen, or reduce the number of exception records being saved. Call Services.
1350	GENERAL error internal to process: Failure in trunk exception database table. Trunk group exception data not being stored. Call Services. <i>Reason</i>—Unable to insert rows in the trunk group exception (tgex) table. The error can occur when the disk partition holding the trunk group exception table becomes full. No more trunk group exceptions can be recorded until the problem is corrected. <i>What to Do?</i>—Move the Exceptions tables or other historical data tables to a different file system with more space via the Free Space Allocation screen, or reduce the number of exception records being saved. Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1350	GENERAL error internal to process: Failure in VDN exception database table. VDN exception data not being stored. Call Services. <i>Reason</i>—Unable to insert rows in the VDN exception (vdnex) table. The error can occur when the disk partition holding the VDN exception table becomes full. No more VDN exceptions can be recorded until the problem is corrected. <i>What to Do?</i>—Move the Exceptions tables (or other historical data tables) to a different file system with more space via the Free Space Allocation screen, or reduce the number of exception records being saved. Call Services.
1350	GENERAL error internal to process: Failure in vector exception database table. Vector exception data not being stored. Call Services. <i>Reason</i>—Unable to insert rows in the vector exception (vecex) table. The error can occur when the disk partition holding the vector exception table becomes full. No more vector exceptions can be recorded until the problem is corrected. <i>What to Do?</i>—Move the Exceptions tables (or other historical data tables) to a different file system with more space via the Free Space Allocation screen, or reduce the number of exception records being saved. Call Services.
1350	GENERAL error internal to process: CMS task limit exceeded, system is too busy. <i>Reason</i>—A <i>CentreVu</i> CMS task could not be created because the maximum number of <i>CentreVu</i> CMS tasks is already running. <i>What to Do?</i>—Make sure each user logs in on only one <i>CentreVu</i> CMS terminal at a time. If this message occurs when timetables are running, try adjusting the starting times of the timetables so that fewer are running simultaneously. If it occurs when running Main Menu Additions, try rewriting the Main Menu Additions to use fewer simultaneous <i>UNIX</i> processes.
1350	GENERAL error internal to process: Update failure for <item searched>. Too much data. Try again with a more restrictive search. <i>Reason</i>—Number of items that matched search criteria was too large. <i>What to Do?</i>—Restrict the search to something narrower so that fewer matches are found.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1350	GENERAL error internal to process: Disk may be full. <i>Reason</i>—Error in searching for item. Disk is probably full. <i>What to Do?</i>—Clean up unnecessary files from disk. If needed, back up to tape and delete. Call Services.
1350	GENERAL error internal to process: Failure in removing data from database table: ag_actv. Agent Trace data not being stored. Call Services. <i>Reason</i>—An internal error occurred that prevents data from being deleted from the ag_actv database table. <i>What to Do?</i>—Call Services.
1351	GENERAL error in process interface: Invalid action request. <i>Reason</i>—Something is corrupted with the window interface. <i>What to Do?</i>—Back out and re-enter the data summarizing window. Attempt to initiate data summarizing again. Call Services.
1351	GENERAL error in process interface: Cannot archive a day which interval data does not exist for. <i>Reason</i>—Interval data does not exist for the requested day or any day prior to the requested day. The number of days of interval data saved is based on the Days of Intrahour data field set in the Data Storage Allocation window. <i>What to Do?</i>—Re-initiate Data Summarizing for a day that is within the number of Days of Intrahour data saved. For future reference, the number of Days of Intrahour data can be increased. Disk space must be considered before changing this parameter.
1351	GENERAL error in process interface: Cannot archive the requested week/month. Daily data does not exist for all tables for the week/month beginning xx/xx/xx. <i>Reason</i>—Daily data does not exist for the requested week/month or any week/month prior to the requested day. The number of days of interval data saved is based on the Days of Daily data field set in the Data Storage Allocation window. <i>What to Do?</i>—Reinitiate Data Summarizing for a week/month that is within the number of Days of Daily data saved. For future reference, the number of Days of Daily data can be increased. Disk space must be considered before changing this parameter.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1351	GENERAL error in process interface: Error - <ARCH> receiving too many archive requests too fast. Some requests have been discarded. <i>Reason</i>—Too many data summarizing requests (more than 25) have been initiated in a short period of time (less than 30 minutes) and cannot all be processed. <i>What to Do?</i>—Determine all data summarizing requests that have been initiated. Once all requests have been processed, verify the requests against the completed archives (as reported in <i>/cms/dc/archive/arch.log</i>). Reinitiate archive for the date and archive (daily/weekly/monthly) for the archives not initiated. In the future, do not initiate all requests at once.
1351	GENERAL error in process interface: Cannot archive a day in the future. <i>Reason</i>—The date requested for archive has not happened yet. <i>What to Do?</i>—Reinitiate the daily archive for a date prior to today.
1351	GENERAL error in process interface: Cannot archive a partial weeks/months data. <i>Reason</i>—The last day for the week/month has not been archived yet. <i>What to Do?</i>—Verify that a weekly/monthly archive is not being requested for the current or a future week/month. Reinitiate the weekly/monthly archive for a week/month in which the last day has already been archived.
1351	GENERAL error in process interface: stopping task <i>id (pid)</i> to free up message queue. <i>Reason</i>—A message queue is more than 85 percent full and the task that should be reading from the queue is stuck. This message is logged when <i>CentreVu</i> CMS restarts the task to attempt to clear the error condition. Depending on which task has been stopped, it is likely that some data has been lost. <i>What to Do?</i>—Call Services. If this error is logged repeatedly, try reducing your <i>CentreVu</i> CMS usage to reduce the chances of losing data. If this message occurs while you are doing a <i>CentreVu</i> CMS backup, try doing the backup during a less busy period.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1351	GENERAL error in process interface: External applications not started. Set to OFF. <i>Reason</i>—A general error occurred when the External Application feature was started. The feature was turned off because of the error. <i>What to Do?</i>—Call Services.
1351	GENERAL error in process interface: Activate Agent Trace request failed. Try again. <i>Reason</i>—The agent activity recorder process (<i>aar</i>) has too many messages in its message queue to accept any more. This can occur when many active agents are being traced, keeping <i>aar</i>'s queue full. <i>What to Do?</i>—Trace fewer agents or try the request again later.
1351	GENERAL error in process interface: Task <i>task_num</i> of timetable <i>name</i> may not have completed, window status was: <i>status</i>. <i>Reason</i>—Timetable ran and has a status other than <code>Successful</code>. <i>What to Do?</i>—Based on what the timetable was, try to figure out if the request completed successfully. If not, complete the action that was on the timetable manually by running <i>CentreVu</i> CMS.
1400	SPI session error: data collection session is down. <i>Reason</i>—An error occurred in the X.25 connection to the switch. <i>CentreVu</i> CMS data is not being collected. <i>CentreVu</i> CMS automatically tries to restore the link. <i>What to Do?</i>—If the link does not come back up by itself within 5 minutes, check the cables, modems, and other hardware between the <i>CentreVu</i> CMS and the switch for any obvious loose connections. At the switch, busy out and release the MIS connection. Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1404	SPI configuration error: Insufficient unmeasured trunks allocated. To avoid further data loss, go to Data Storage Allocation and administer more unmeasured trunk facilities. <i>Reason</i>—There are not enough unmeasured trunks allocated in the <i>CentreVu</i> CMS real-time database to track all calls. This message is logged once during each data collection interval when the error condition occurs. When this message appears, some call data has already been lost. Data will continue to be lost until more trunk facilities have been allocated. <i>What to Do?</i>—Allocate more unmeasured trunk facilities in the Data Storage Allocation screen.
1404	SPI configuration error: Switch and UNIX clocks differ by more than 24 hours. Switch clock is <i>nn:nn:nn nn/nn/nn</i> UNIX clock is <i>mm:mm:mm mm/mm/mm</i> Data collection will remain down until switch or UNIX clock is reset so they agree. <i>Reason</i>—<i>CentreVu</i> CMS requires that the switch and <i>UNIX</i> clocks remain within 24 hours of each other. This is done to prevent an accidental deletion of all historical data if someone were to inadvertently change the clock to a date in the future. <i>What to Do?</i>—If the <i>UNIX</i> clock is correct but the switch is incorrect, reset the clock at the switch. <i>CentreVu</i> CMS brings the link up automatically within 5 minutes after correcting the switch clock. For Intel platforms, if the switch clock is correct but the <i>UNIX</i> clock is incorrect, run <code>cmsadm</code> to turn off <i>CentreVu</i> CMS. Then run <code>face</code>, select System Administration, and select Date and Time. Follow the instructions to set the <i>UNIX</i> clock, then run <code>cmsadm</code> to turn on <i>CentreVu</i> CMS. The link is automatically brought up. For Sun platforms, to correct the error, refer to the instructions in the <i>CentreVu</i> CMS Installation and Maintenance document, Chapter 7, Date & Time section. NOTE: Never change the <i>UNIX</i> clock while <i>CentreVu</i> CMS is running.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1404	SPI configuration error: Extension <i>number</i> has been staffed by two different login IDs: <i>first</i> and <i>second</i>. Data will be tracked only for the last login ID. Ask the agent to log off and log in again with a single login ID. <i>Reason</i>—Protocol error as explained in the message. <i>What to Do?</i>—Ask the agent to log off and log in again with a single login ID.
1404	SPI configuration error: Two agents at extensions <i>ext</i> in split <i>num</i> and <i>ext</i> in split <i>num</i> are logged in with the same login ID: <i>id</i>. This may indicate table corruption on the switch. Contact Services to repair table as soon as possible. <i>Reason</i>—Protocol violation or switch corruption. <i>What to Do?</i>—Request new translations in the Maintenance — ACD Status window. If the problem persists, Call Services.
1404	SPI configuration error: Two agents at extensions <i>ext</i> and <i>extare</i> are logged in with the same login ID: <i>id</i>. This may indicate table corruption on the switch. Contact Services to repair table as soon as possible. <i>Reason</i>—Protocol violation or switch corruption. <i>What to Do?</i>—Request new translations in the Maintenance — ACD Status window. If the problem persists, Call Services.
1404	SPI configuration error: Agent <i>logid</i> at extension <i>ext</i> has logged into too many splits: <i>sp1</i> and <i>sp2</i>. Data will only be tracked for the last split. This may indicate incorrect switch type on CMS (for G3) or table corruption on the switch (for G2). <i>Reason</i>—Switch type mismatch, protocol violation or switch table corruption. <i>What to Do?</i>—Request new translations in the Maintenance — ACD Status window. If the problem persists, Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1404	SPI configuration error: Agent <i>logid</i> at extension <i>ext</i> has logged into too many splits: <i>sp1</i>, <i>sp2</i>, <i>sp3</i>, and <i>sp4</i>. Data will only be tracked for the last split. This may indicate incorrect switch type on CMS (for G3) or table corruption on the switch (for G2). <i>Reason</i>—Switch type mismatched, protocol violation, or switch table corruption. <i>What to Do?</i>—Request new translations in the Maintenance — ACD Status window. If the problem persists, Call Services.
1404	SPI configuration error: Agent <i>logid</i> at extension <i>ext</i> has logged into too many splits: <i>sp1</i>, <i>sp2</i>, <i>sp3</i>, <i>sp4</i>, and <i>sp5</i>. Data will only be tracked for the last split. This may indicate incorrect switch type on CMS (for G3) or table corruption on the switch (for G2). <i>Reason</i>—Switch type mismatched, protocol violation, or switch table corruption. <i>What to Do?</i>—Request new translations in the Maintenance — ACD Status window. If the problem persists, Call Services.
1406	SPI data message error: ERROR can't new a message (or got illegal cpcode). <i>Reason</i>—Indicates that there is a mismatch between the administered <i>CentreVu</i> CMS type on the switch (Generic 3) and the actual <i>CentreVu</i> CMS, or there is a mismatch between the administered switch type and feature set of the switch on the <i>CentreVu</i> CMS. Either results in message formats being unexpected lengths. Data is lost since the remainder of the buffer is discarded after the unknown message. <i>What to Do?</i>—Determine if the problem happens more than once. Call Services.
1407	SPI timer expired error: there is no response from the switch. <i>Reason</i>—<i>CentreVu</i> CMS has stopped receiving messages from the switch. <i>CentreVu</i> CMS data is not being collected. <i>CentreVu</i> CMS automatically tries to restore the link. <i>What to Do?</i>—At the switch, busy out and release the MIS connection. If the connection does not come back up in 5 minutes, perform the procedures for troubleshooting error 1400 (SPI session error: data collection session is down). Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1409	SPI ACD administration error: switch was unable to logon agent <i>logid</i> with skill <i>num</i>. <i>Reason</i>—An agent login failed on the switch. The login may have been part of a Move Agent or Change Agent Skills request that was pending. <i>What to Do?</i>—Have the agent try to repeat logging in to the skill again or, put the agent in the AUX workmode for all skills, have no calls on their set, and repeat the administration request. If the request fails again, collect the information from the status window and Call Services.
1409	SPI ACD administration error: switch was unable to move ext <i>ext</i> from split <i>num</i> to <i>num</i>. OR SPI ACD administration error: switch unable to move ext <i>ext</i> from split <i>num</i>. <i>Reason</i>—Previous ACD administration was pending for a request to move an agent or change an agent's skills. When the pending condition was resolved, the agent could not be moved for some reason. <i>What to Do?</i>—Put the agent in the AUX workmode for all splits/skills and have no calls on the set. Repeat the administration request. If the request fails again, collect the information from the status window and Call Services.
1501	SCREEN MANAGER error: system may be overloaded by real-time reports behind by: <i>XX</i> seconds (INFO). <i>Reason</i>—CentreVu CMS is behind on refreshing the real-time reports currently running. <i>What to Do?</i>—Reduce the number of real-time reports, or lengthen the refresh rates for reports currently running.
1600	FORECAST status: Forecast Manager failed for <i>mm/dd/yyyy</i>. <i>Reason</i>—Forecast Manager failed in its attempt to perform the daily data collection and/or the current day report for the date shown. <i>What to Do?</i>—If the date is invalid, correct the date and rerun the report. If the date is not invalid, Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1600	FORECAST status: Forecast Manager failed for mm/dd/yyyy - mm/dd/yyyy. <i>Reason</i>—Forecast Manager failed in its attempt to collect data for the range of dates shown. <i>What to Do?</i>—If the dates are invalid, correct them and rerun the report. If the dates are not invalid, Call Services.
1700	BACKUP Process out of sync. Contact Services. <i>Reason</i>—A message that was difficult to understand was received from the backup screen. If this occurs, perhaps some sort of interference occurred in the message queue between backup and the backup window. If the problem recurs, something is affecting the communication between the processes, and further investigation is needed. <i>What to Do?</i>—Back out of the current instance of the backup screen and reinitiate the backup. If the problem recurs, Call Services.
1701	BACKUP Process out of memory. Contact Services. <i>Reason</i>—An error occurred during tape verification. The backup was completed successfully, and when <i>CentreVu</i> CMS verified the tape, an error occurred. This error is a result of memory allocation problems. <i>What to Do?</i>—If tape verification is not essential, ignore the error. Back out of the current instance of the backup window and re-initiate the backup. If the problem recurs, Call Services.
1702	BACKUP Process startup failed. Contact Services. <i>Reason</i>—An error occurred with one of any number of startup activities. Usually, this error is caused by message and database activities. <i>What to Do?</i>—Back out of the current instance of the backup screen and reinitiate the backup. If the problem recurs, Call Services.
1703	BACKUP Volume access failed. Retry Backup. <i>Reason</i>—There is a problem accessing the backup device. The problem can range from an invalid backup device to the tape needing to be cleaned. <i>What to Do?</i>—Verify that the backup device is administered properly (name corresponds with the <i>UNIX</i>-administered device), the tape type is correct (320 megabyte tape for 320 megabyte tape drive, etc.), and the tape drive is clean. Retry the backup.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1704	BACKUP Volume check failed. Retry Backup. <i>Reason</i>—Either the inserted tape is from a recent backup and backup was initiated in timetable, or backup had difficulty determining the most recent backup volume. <i>What to Do?</i>—Determine if the inserted tape is associated with the most recent backup. Replace the tape and reexecute the backup. If this does not work, Call Services.
1705	BACKUP Volume verification failed. Retry Backup. <i>Reason</i>—There was a problem reading the tape. <i>What to Do?</i>—Retry backup. If the problem recurs, Call Services.
1706	BACKUP Table backup failed. Retry Backup. Table=<i>table name</i>. <i>Reason</i>—A problem was encountered reading the indicated table or writing table to tape. <i>What to Do?</i>—Replace the tape with a new tape and retry backup. If the problem recurs, Call Services.
1707	BACKUP Volume span failed. Retry Backup. <i>Reason</i>—When verifying the backup tape, a problem was discovered between the current volume and the previous volume. Most likely, the blocks are out of sequence, and probably at least one block is missing. <i>What to Do?</i>—Retry backup. If the problem recurs, Call Services.
1708	BACKUP Error in process communication. Retry Backup. <i>Reason</i>—A bad message was received from the backup window (or another process). If this occurs, interference might have occurred in the message queue between backup and the backup window. <i>What to Do?</i>—Retry Backup. If the problem recurs, Call Services.
1709	BACKUP Backup history update failed. Retry Backup. <i>Reason</i>—The backup completed successfully, but a problem exists with the update tables or the process to update the tables. <i>What to Do?</i>—Verify that the next backup does not encounter this problem. If it does recur, Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1710	Backup Process in need of service. Please check the Backup screen. <i>Reason</i>—An Acknowledgment window requires a response. <i>What to Do?</i>—Respond to the backup Acknowledgment window.
1711	BACKUP INFO: <i>Reason</i>—Backup was initiated via a timetable and information is reported (number of volumes and backup completed) for information purposes only. <i>What to Do?</i>—No action needed.
1750	Backup Screen startup failed. Contact Services. <i>Reason</i>—Any number of startup activities can cause this error, including accessing screen entries and database activities. <i>What to Do?</i>—Retry backup. If the problem recurs, Call Services.
1751	Backup Screen execution failed. Retry Backup. <i>Reason</i>—Any number of startup activities can cause this error, including accessing screen entries and database activities. <i>What to Do?</i>—Retry backup. If the problem recurs, Call Services.
1800	RESTORE Process out of sync. Contact Services. <i>Reason</i>—A bad message was received from the restore window. The cause could be interference in the message queue between restores and the restore window. <i>What to Do?</i>—Retry restore. If the problem recurs, Call Services.
1801	RESTORE Process out of memory. Contact Services. <i>Reason</i>—There is a problem with memory allocation. <i>What to Do?</i>—Retry restore. If the problem recurs, Call Services.
1802	RESTORE Process startup failed. Contact Services. <i>Reason</i>—Any number of startup activities can cause this error, including accessing screen entries and database activities. <i>What to Do?</i>—Retry restore. If the problem recurs, Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1803	RESTORE Volume access failed. Retry Restore. <i>Reason</i>—A problem exists accessing the restore device. The problem can range from invalid restore device, to the tape drive needing to be cleaned, or to table header format problems. <i>What to Do?</i>—Verify that the backup/restore device is administered properly (name corresponds with the <i>UNIX</i>-administered device), the tape type is correct (320 megabyte tape for 320 megabyte drive, etc.), and the tape drive is clean. Retry restore. If the problem recurs, Call Services.
1804	RESTORE Error in process communication. Retry Restore. <i>Reason</i>—A bad message was received by the restore window or the restore process. The cause might be interference in the message queue between restore and the restore window. <i>What to Do?</i>—Retry restore. If the problem recurs, Call Services.
1805	RESTORE Table restore failed. Retry Restore. Table=<table name>. <i>Reason</i>—A problem was encountered reading the table from tape or writing the table into the database. <i>What to Do?</i>—Do a specific table restore for the table. If the problem recurs, Call Services.
1806	RESTORE INFO: Volume contains no data for ACD=X. <i>Reason</i>—Information message indicating the current table for the indicated ACD does not have data. <i>What to Do?</i>—No action needed.
1850	RESTORE Screen startup failed. Contact Services. <i>Reason</i>—Any number of startup activities can cause this error, including accessing screen entries. <i>What to Do?</i>—Retry restore. If the problem recurs, Call Services.
1851	RESTORE Screen execution failed. Retry Restore. <i>Reason</i>—Updating the status on the screen could cause this problem. <i>What to Do?</i>—Retry restore. If the problem recurs, Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1900	SYSTEM MESSAGE OVERLOAD: Agent Trace (AAR) is overloaded, some agent trace data lost. Turn off traces for some agents to prevent possible further overloading. <i>Reason</i>—Aar is receiving messages faster than it can process them. <i>What to Do?</i>—Turn off traces for some agents.
1900	SYSTEM MESSAGE OVERLOAD: Call History Recorder (ch_rec) overloaded, some call record data lost. <i>Reason</i>—Data is being sent faster than it can be processed. This may mean the system is overloaded. <i>What to Do?</i>—Stop some reports or applications so that the system capacity is increased.
1901	FULL DISK ERROR: Not enough room to archive on file system: <i>FILESYSTEM</i>. <i>Reason</i>—There is not enough disk space available to insert the daily/weekly/monthly archive data. <i>What to Do?</i>—Free up disk space.
1901	FULL DISK ERROR: Out of disk space. Harchiver could not write to <table name>. <i>Reason</i>—There is not enough disk space available to insert agent login/logout or interval archive data. <i>What to Do?</i>—Free up disk space.
1901	FULL DISK ERROR: Not enough room for interval archive on file system: <i>FILESYSTEM</i>. <i>Reason</i>—There is not enough disk space available for insert of interval archive data. <i>What to Do?</i>—Free up disk space.
1901	FULL DISK ERROR: cannot write to xxx. <i>Reason</i>—File system out of space. <i>What to Do?</i>—Use Free Space Allocation to move data from the full file system to one that is not full.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1901	FULL DISK ERROR: cannot load pseudo ACD. <i>Reason</i>—There is no more disk space to load the data for this pseudo ACD. The load ACD cannot continue. <i>What to Do?</i>—Delete the pseudo ACD and start over again using a later load pseudo ACD “Start Date,” and load less data. Reduce the amount of historical data kept in other ACDs.
1901	FULL DISK ERROR: Automatically turning off data collection and bringing CMS to single user mode. <i>Reason</i>—All file systems are checked for free space every 10 minutes. If any file system goes below 2000 free blocks, this message will occur. By turning off data collection and going to single-user mode, <i>CentreVu</i> CMS prevents corruption of the data that may occur if <i>UNIX</i> tries to write data to a full file system. <i>CentreVu</i> CMS cannot be returned to its normal operational state until space has been made available in the full file system. <i>What to Do?</i>—Use Free Space Allocation to move data from the full file system to one that is not full.
1901	FULL DISK ERROR: WARNING: File system <i>filesys</i> is <i>NN</i> percent full. <i>Reason</i>—This message is logged once each day near midnight, and when <i>CentreVu</i> CMS is started. The message is logged once for each file system that is 80 percent full or more. It is intended as an early warning that the disk space may need to be reallocated. <i>What to Do?</i>—No immediate action is necessary. Eventually, you should use Free Space Allocation to move data from the full file system to one that is not full. You should plan to do this well in advance of the file system becoming completely full.
1901	FULL DISK ERROR: Storage Interval Migration failed migrating. <i>Reason</i>—File system out of space. <i>What to Do?</i>—Use Free Space Allocation to move data from the full file system to one that is not full.
1901	FULL DISK ERROR. <i>Reason</i>—The file system containing the <code>ag_actv</code> database table is full. <i>What to Do?</i>—Change the allocation of disk space for the various classes of data to accommodate storage of more agent trace records.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1901	FULL DISK ERROR: Out of disk space. Call Records not recorded. <i>Reason</i>—The file system containing the <code>call_rec</code> database table is full. <i>What to Do?</i>—Change the allocation of disk space for the various classes of data to accommodate storage of more internal call records.
1901	FULL DISK ERROR: Call Records not being stored. Contact Services. <i>Reason</i>—The file system containing the external call records files is full. <i>What to Do?</i>—Delete old files that have not been transferred successfully.
1902	CALL RECORD ERROR: Call records not being stored. Contact Services. <i>Reason</i>—An error was encountered in writing call records to a disk file. <i>What to Do?</i>—Call Services.
1902	CALL RECORD ERROR: Call records are being collected again. <i>Reason</i>—Information message. Previous errors that occurred while writing files have cleared and records are being stored. <i>What to Do?</i>—No action necessary.
1902	CALL RECORD ERROR: Call records not being stored, buffer area is full. Contact Services. <i>Reason</i>—Files containing call records have not been successfully transferred. All storage space has been used, and new records cannot be added. <i>What to Do?</i>—Delete old files that have not transferred successfully. Call Services.
1902	CALL RECORD ERROR: Cannot update last record data, call records not accessible via report. Contact Services. <i>Reason</i>—The call record report cannot run because the data for the last interval was not updated. <i>What to Do?</i>—Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2000	Could not run timetable: - Aborting Timetable. <timetable name>. <i>Reason</i>—Something is wrong with the timetable, causing it to not run. <i>What to Do?</i>—Reschedule the timetable. Check to see if there are bad tasks in the timetable.
2000	Could not run timetable: <timetable name> Task <number> of <total> was unable to complete. Reason: <reason>. <i>Reason</i>—Timetable task is bad. <i>What to Do?</i>—Consult the Timetable and Shortcut chapter in the <i>CentreVu™ CMS R3V5 Administration</i> (585-215-820) document to see how to troubleshoot bad tasks. A common reason is that the user does not have permissions for the split, VDN, vector, trunk, or trunk group for which the timetable is running a report.
2000	Could not run timetable: don't run timetable, in single user timetable = <timetable_name> <user_name>. <i>Reason</i>—Timetables cannot run when <i>CentreVu</i> CMS is in single-user mode. <i>What to Do?</i>—Schedule the timetables that should have run as soon as possible, and then reschedule them back to their original times. In the future, schedule timetables so they do not run during times when <i>CentreVu</i> CMS is in the single-user mode.
2000	Could not run timetable: sorry post office open of timetable crt_io_man was not successful for timetable - <timetable name> and <cms id> - <user name>. <i>Reason</i>—Communications cannot be established with a <i>crt_io_man</i> in order to run the timetable. <i>What to Do?</i>—Reschedule the timetable.
2000	Could not run timetable: -- Archiver <timetable name> did not run on <date> for the user - <user name>. Please schedule it to rerun using the Data summarizing screen. <i>Reason</i>—Archiver has a problem in moving historical data into tables for the timetable to use. <i>What to Do?</i>—Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2000	Could not run timetable: -- <timetable name> did not run on <date> for the user - <user name>. To schedule a timetable to run as soon as possible, enter a cms start time that is two minutes into the future, and a start date of 0. <i>Reason</i>—A timetable was scheduled to run less than 2 minutes from now. <i>What to Do?</i>—Reschedule the timetable for at least 2 minutes in the future.
2100	Unable to execute <i>process</i>. Impact description. Call Services. <i>Reason</i>—The indicated process could not be executed. The impact to the customer is described in the impact description. Usually this error is received due to a problem that requires intervention by services. The impact is usually the failure of a major component of <i>CentreVu</i> CMS, such as Agent Trace, Exceptions, or Data Collection. <i>What to Do?</i>—Call Services. Sometimes the problem can be repaired by stopping <i>CentreVu</i> CMS and restarting it.
2200	R2 Migration failed. Consult Migration log. Contact Services. Table = <table>. <i>Reason</i>—Error encountered during migration. <i>What to Do?</i>—Call Services.
2300	INTERVAL MIGRATION: Interval migration was canceled before it completed. Restart it from the Storage Intervals screen to complete the migration. <i>Reason</i>—The migration was canceled manually before it completed. <i>What to Do?</i>—Restart from the Storage Intervals screen.
2300	INTERVAL MIGRATION: Migrating intrahour historical data for ACD xx from xx to yy minute interval is complete. <i>Reason</i>—Informs you when intrahour migration is complete. <i>What to Do?</i>—No action required.
2400	FREE SPACE ALLOCATION: failed to update INFORMIX filesys table. <i>Reason</i>—The update to the <code>filesys</code> table failed. This table contains the filesystems in which each type of historical data is stored in. <i>What to Do?</i>—Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2400	FREE SPACE ALLOCATION: attempt to return table <i>table_name</i> to filesystem <i>filesystem</i> failed. Archiving of historical data may fail. Contact Services. <i>Reason</i>—An error occurred when a table was being moved to a new <i>UNIX</i> file system. A recovery was attempted to return the table to its original file system. The recovery also failed. <i>What to Do?</i>—Call Services.
2400	FREE SPACE ALLOCATION: failed to update file used to locate database tables (systables). Archiving of historical data may fail. Contact Services. <i>Reason</i>—The update to the file that locates systables table failed. <i>What to Do?</i>—Call Services.
2400	FREE SPACE ALLOCATION: attempt to move table <i>table_name</i> to file system <i>file_system</i> failed. The system will try to return the table to its original location. <i>Reason</i>—An error occurred when a table was being moved to a new <i>UNIX</i> file system. A recovery was attempted to move the tables back to the original file system. An error is logged if the recovery fails. An “INFO” error is logged if the recovery is successful. <i>What to Do?</i>—If the recovery fails, Call Services. If the recovery is successful, try the move one more time.
2400	FREE SPACE ALLOCATION: recovery from earlier failures was successful. <i>Reason</i>—Message to inform you that the recovery attempt to move tables back to the original <i>UNIX</i> filesystem was successful. <i>What to Do?</i>—Try the file system move again.
2500	STORAGE INTERVALS: Weekly start/stop day(s) have been changed from xx to yy. <i>Reason</i>—Message to inform you that the Storage Interval days have changed. <i>What to Do?</i>—Verify that the new days are correct.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2600	ARCHIVER status: Daily/Weekly/Monthly Archive not executed for xx/xx/xx due to Data Storage Allocation administration. <i>Reason</i>—Data Storage Allocation indicates zero days/weeks/months are to be saved. Therefore, there is no reason to archive. <i>What to Do?</i>—If daily archives are desired, Data Storage —Days of Daily/Weeks of Weekly/Months of Monthly entries must be changed to allow an archive to take place. Disk space must be considered before changing these fields.
2600	ARCHIVER status: Daily/Monthly/Weekly Archiver for xx/xx/xx Successful. <i>Reason</i>—Message to inform you that the archive was successful. The status of previous and current archives also exists in <i>/cms/dc/archive.arch.log</i>. <i>What to Do?</i>—No action required.
2600	ARCHIVER status: Daily/Monthly/Weekly Archiver for xx/xx/xx Failed. <i>Reason</i>—Message to inform you that the archive failed. The status of previous and current archives also exists in <i>/cms/dc/archive.arch.log</i>. <i>What to Do?</i>—Re-initiate archive for the same date and archive (daily/monthly/weekly).
2700	MIGRATE DATA Process out of sync. Call Services. <i>Reason</i>—Internal error. A bad message was received from the migrate window. If this occurs, there was probably interference in the message queue between migrate and the migrate window. If the problem recurs, something is affecting the communication between the processes, and further investigation is necessary. <i>What to Do?</i>—Back out of the window and retry the migration. If the problem recurs, Call Services.
2701	MIGRATE DATA Process out of memory. Contact Services. <i>Reason</i>—There is not enough memory to perform the migration. <i>What to Do?</i>—Back out of the window and retry the migration. If the problem recurs, Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2702	MIGRATE DATA Process startup failed. Contact Services. <i>Reason</i>—An internal problem or a problem with the <i>INFORMIX</i> [†] database has been found. <i>What to Do?</i>—Back out of the window and retry the migration. If the problem recurs, Call Services.
2703	MIGRATE DATA Volume access failed. Retry Migrate. <i>Reason</i>—Access was denied during an attempt to access one of the migration devices. <i>What to Do?</i>—Verify device administration, the tape is the proper type, and the tape drive is clean. Retry Migrate.
2704	MIGRATE DATA Volume check failed. Retry Migrate. <i>Reason</i>—Either the backup tape was not a full backup, the volumes are not in the correct sequence, or they are from a <i>CentreVu</i> CMS load that cannot be migrated. <i>What to Do?</i>—Make sure the tape is a full backup. If it is, check the sequence of the tapes and the load number. Retry the migration.
2706	MIGRATE DATA Table migration failed. Retry Migrate. Table=<table name>. <i>Reason</i>—An error was encountered when <i>CentreVu</i> CMS attempted to migrate the named table. The problem was encountered either reading the table from tape or writing that table into the database. <i>What to Do?</i>—Stop the migration and Call Services. After the problem is fixed, retry the migration.
2708	MIGRATE DATA Error in process communication. Retry Migrate. <i>Reason</i>—Internal error. A bad message was received by the migrate window or process. Interference occurred in the message queue between migrate and the migrate window. If the problem recurs, something is impacting the communication between the processes and further investigation is necessary. <i>What to Do?</i>—Back out of the migration window and run the migration again. Call Services.

Table 9-11: Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2750	MIGRATE DATA Screen startup failed. Contact Services. <i>Reason</i> —Internal error. <i>What to Do?</i> —Back out of the migration window and run the migration again. Call Services.
2751	MIGRATE DATA Screen execution failed. Retry Migrate. <i>Reason</i> —A screen was not migrated correctly. <i>What to Do?</i> —Back out of the migration window and try the migration again.

* UNIX is a registered trademark of Novell, Inc.

† INFORMIX is a registered trademark of Informix Systems, Inc.

No Reply From SPI for ACD

No action is required for the following error message:

Message:

```
01340 Fri Jun 11 10:24:35 1993 SRC_ERR_NUM=0001
PROCESS=spi_mon PID=00 1976 main.c:00182 SEVERITY=ERROR
ACD=01 DUPS=000000 GENERAL error internal to process: no
reply from SPI for ACD=2
```

Attempt to Stop and Restart X.25

No action is required for the following error message:

Message:

```
00000 Fri Jun 11 10:27:35 1993 SRC_ERR_NUM=0000
PROCESS=spi_mon PID=00 1976 main.c:00532 SEVERITY=INFO
ACD=01 DUPS=000000 Attempt to stop and restart X.25 and DC
```

Successful Backup Using a New Volume

When you do a backup that completes successfully (without any errors), you may see the following message on the system console:

Message:

```
WARNING: ST01:HA 0 TC 3 U 0: Err 60503005 CMD 00000008 Sense
Key 00000003 Ext Sense 00000000.
```

This message means that a new volume (tape, disk, etc.) was used for the backup. Ignore this warning and press **Ctrl** **L** to refresh the screen.

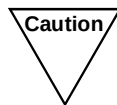
Lack of Unmeasured Trunk Facilities

If *CentreVu* CMS runs out of unmeasured trunk facilities, the following message appears:

Message:

SPI configuration error: Insufficient unmeasured trunks allocated. To avoid further data loss, go to Data Storage Allocation and administer more unmeasured trunk facilities.

This message is logged only the first time it occurs during each data collection interval.



When this message appears, some call data has been lost. You should immediately allocate more unmeasured trunks to avoid further data loss.

CMS is Down When a Data Summarizing Timetable is Scheduled

If *CentreVu* CMS is down when a Data Summarizing timetable is scheduled to run, an error message is logged which directs you to do a manual archive from the Data Summarizing window.

Results of Daily, Weekly, and Monthly Data Summaries

The results of daily, weekly, and monthly data summaries are written to the error log. You can use the Error Log report to see when the summaries ran and whether or not they were successful.

Chapter 10

UNIX System/Solaris System

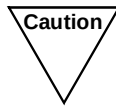
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General Information

CentreVu CMS is supported on two operating systems:

- *Solaris*^{*} 2.4 on the *Sun*[†] *SPARCserver*[‡] platforms
- *UNIX*^{**} System 5 Release 3.2 Version 2.3 on the *Intel*^{††} platforms.

You can access the *UNIX* system/*Solaris* system by logging in as *root* at any terminal or by selecting the *UNIX* system option from the **Commands** SLK menu. If you log in as *root*, your cursor is at the # prompt. If you access the *UNIX* system/*Solaris* system from the *UNIX* system option on the **Commands** SLK menu, your cursor is at the \$ prompt.



Be careful when accessing the *UNIX* system/*Solaris* system to execute *UNIX* system/*Solaris* system commands. Damage can result to *CentreVu* CMS because of incorrect use of the *UNIX* system/*Solaris* system commands. Before you execute any *UNIX* system/*Solaris* system command, be sure you know what effect it will have.

Also, do not allow users to share the same login ID, because this quickly consumes *UNIX* system/*Solaris* system processes.



To perform some of the procedures in the *UNIX* system/*Solaris* system section of this chapter, you will need to know the *root* password for your system.

* Solaris is a trademark of Sun Microsystems, Inc.

† Sun is a registered trademark of Sun Microsystems, Inc.

‡ SPARCserver is a trademark of Sun Microsystems, Inc.

** UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

†† Intel is a registered trademark of Intel Corp.

Accessing the *UNIX* System/*Solaris* System

To access the *UNIX* system/*Solaris* system:

1. Press the **Commands** SLK. *The Commands menu displays.*
2. Select UNIX (r) system, and press **Return**. *The screen clears and a \$ prompt displays.*
3. Do any desired work in the UNIX system/*Solaris* system.
4. To return to CentreVu CMS, at the prompt, type the word `exit` and press **Return**. *You return to your current open window in CentreVu CMS.*

Viewing a *UNIX* System/*Solaris* System File

The `pg` command displays *UNIX* system/*Solaris* system file data, one terminal screen at a time.

Historical Reports

Enter the `<pg>` command to view a historical report sent to a file. The `<filename>` is the name you entered for the file specified as the report destination. This command shows you the file, one page (terminal screen) at a time.

```
$ pg <filename>
```

Changing a User's Password

Use the following procedures if a user forgets his or her password:

1. Press the **Commands** SLK.

The Commands menu displays.

2. Select UNIX (r) system, and press **Return**.

The screen clears and a \$ prompt displays.

```
$
```

3. Enter the following command to log in as *root*.

```
$ su - root
```

4. Enter the correct *root* password when prompted.
5. Enter the following command to prompt for a new password for <userid>.

```
# passwd <userid>
```

Note

<userid> is the ID of the user who forgot the password.

6. When prompted, enter a new password for the user.
7. Enter the following command, which requires the user to enter a different password (from the one you entered for the user) the next time the user logs into *CentreVu* CMS.

```
# passwd -f userid
```

8. Inform the user of the new password, and then have the user log in. At this time, the user is required to change the password.
9. To return to *CentreVu* CMS, at the prompt type the word **exit** and press the **Return** key.

You return to your current open window in CentreVu CMS.

Printer Commands

Printer Administration

Normally printer administration is done during *CentreVu* CMS installation, but sometimes additional printers may be added later. See the *CentreVu™ CMS R3V5 Sun® SPARCserver™ Computers Installation and Maintenance* (585-215-827) document (if you have a *Sun*) or the *CMS R3V2 Installation and Maintenance* (585-215-122) document (if you have an *Intel* platform) for all the procedures. At times, you may have to cancel a queued print job, move print jobs to a different printer, disable a printer from actively printing jobs, or enable a printer to continue printing queued jobs. The *UNIX* system/*Solaris* system commands follow for each of these.

Note

If for any reason a printer jams and the print requests are no longer in queue, you must resubmit any of the print requests that did not print.

If the print request is still in queue after fixing the printer jam, the job prints. The print request that was printing at the time of the jam may need to be resubmitted.

Checking Printer Status

The following command checks the status of the print spooler utility, checks to see if the printer is enabled, and lists the print request job IDs.

```
$ /usr/bin/lpstat -t
```

Cancelling a Queued Print Job

To cancel a queued print job, enter the following command.

```
$ /usr/bin/cancel <print job request ID>
```

Note

<print job request ID> is the job number of the print request you want to cancel.

Moving a Print Job to a Different Printer

To move a print job to a different printer, enter the following command.

```
$ /usr/lib/lpmove <numbers> <dest2>
```

Note

`numbers` are the print request numbers for the current printer; `dest2` is the name of the new printer.

Moving All Print Requests to a Different Printer

To move all print requests to a different printer, enter the following command.

```
$ /usr/lib/lpmove <dest1> <dest2>
```

Note

Printer `dest1` is disabled as the current printer, and printer `dest2` is enabled as new printer.

Disabling a Printer

To disable a printer from actively printing queued requests, type the following command.

```
$ /usr/bin/disable <printer name>
```

Enabling a Printer

To continue printing queued requests at a disabled printer, enter the following command.

```
$ /usr/bin/enable <printer name>
```

Note

If the printer runs out of paper during a print job, it must be enabled after adding paper.

Printer Errors

The *CentreVu* CMS Maintenance: Error Log lists printer errors.

***UNIX System/Solaris* System Printer Scheduler Utility**

The scheduler utility stops or starts print jobs scheduled for a printer. If you ever have to stop or start the scheduler utility, enter one of the commands listed below.

Stopping the Scheduler Utility

To stop the scheduler utility, type the following command:

```
$ /usr/lib/lpshut
```

Starting the Scheduler Utility

To start the scheduler utility, type the following command:

```
$ /usr/lib/lpsched
```

Backing Up the File Systems

File systems should be backed up in the following situations:

- After the *CentreVu* CMS software has been initially installed and tested



The *CentreVu* CMS historical data should also be backed up by using the Back Up Data window in the Maintenance subsystem.

- Before and after the *CentreVu* CMS software has been upgraded to a new base load
- Before and after a field update has been applied to the *CentreVu* CMS software.

Backup Using the *UNIX* System

The number of cartridge tapes required to back up the *CentreVu* CMS software varies depending on the amount of data rather than on how many file there are in the system.

Before starting the backup procedures in this section, log in as *root* and execute the following command:

```
# lp /etc/fstab
```

The output from the printer is necessary when doing a system restore later on.



The file system information found in the **/etc/fstab** file should be bundled with the system backup tape(s) for future reference.

To back up the file systems from the *UNIX* system environment, do the following:

1. Log in as *root* at the system console.
2. With CMS in multiuser state, execute the following steps.
3. Enter CMS.
4. Look at the CMS state window and perform one of the following depending upon whether the computer is or is not in the default multi-user state.
 - If the computer is in the multi-user state, proceed with step 4.
 - If the computer is not in the multi-user state, change the current state to `Multi-user` mode.
5. Log out of CMS.
6. In the multi-user state, execute the following command to access the *CentreVu* CMS Administration menu:

```
# cmsadm
```

The *CentreVu* CMS Administration menu displays:

```
# CALL MANAGEMENT SYSTEM ADMINISTRATION
1) acd_create    Define a new ACD
2) acd_remove   Remove all administration and data for an ACD
3) backup       Filesystem backup
4) diskmap      Estimate disk requirements
5) memory       Estimate memory requirements
6) realtime     Estimate real-time report refresh rate
7) pkg_install  Install forecasting package
8) pkg_remove   Remove forecasting package
9) run_cms      Turn CMS On or Off Enter choice
Enter choice (1-9) or q to quit:
```

7. Enter **3** to select the `backup` option.
8. To complete a file system backup, follow the procedures in the “Maintenance—Performing a CMSADM Backup” chapter in the *CMS R3V5 Installation and Maintenance* (585-215-827) document.

Backup Using the *Solaris* System

Before starting the backup procedures in this section, log in as *root* and execute the following command:

```
# lp /etc/vfstab
```

The output from the printer is necessary when doing a system restore later on.

Note

The file system information found in the **/etc/vfstab** file should be bundled with the system backup tape(s) for future reference.

To back up the file systems from the *Solaris* system environment, do the following:

1. At the system console, log in as *root* and verify that the computer is in the multi-user state.
2. In the multi-user state, execute the following command to access the *CentreVu* CMS Administration menu:

```
# cmsadm
```

The *CentreVu* CMS Administration menu displays:

```
# CALL MANAGEMENT SYSTEM ADMINISTRATION
1) acd_create      Define a new ACD
2) acd_remove     Remove all administration and data for an ACD
3) backup         Filesystem backup
4) diskmap        Estimate disk requirements
5) memory         Estimate memory requirements
6) realtime       Estimate real-time report refresh rate
7) pkg_install    Install forecasting package
8) pkg_remove     Remove forecasting package
9) run_cms        Turn CMS On or Off Enter choice
Enter choice (1-9) or q to quit:
```

3. Enter **3** to select the backup option.

Note

The number of cartridge tapes required to back up the *CentreVu* CMS software varies depending how many disks are present on the system.

4. To complete a file system backup, follow the procedures described in the “Maintenance—Performing Backups and Restores” chapter in the *CentreVu™ CMS R3V5 Sun® SPARCserver™ Computers Installation and Maintenance* (585-215-827) document.

Restoring the File Systems

The file systems on the computer can be restored when an accidental loss of data occurs.

Restore Using the *UNIX* System

To restore the file systems from the *UNIX* system environment, do the following:

1. Obtain the cartridge tape(s) that contain the system backups.
2. Obtain the printout of the **/etc/fstab** file that was stored with the backup tapes.
3. Contact the Lucent Technologies National Customer Care Center at 1-800-242-2121, or the Lucent Technologies International Technical Assistance Center at 1-303-538-4666 for further instructions.

Restore Using the *Solaris* System

To restore the file systems from the *Solaris* system environment, do the following:

1. Obtain the cartridge tape(s) that contain the system backups.
2. Obtain the printout of the **/etc/vfstab** file that was stored with the backup tapes.
3. Contact the Lucent Technologies National Customer Care Center at 1-800-242-2121, or the Lucent Technologies International Technical Assistance Center at 1-303-538-4666 for further instructions.

Appendix A

ACD Basics

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General Information

This appendix gives an overview of the ACD feature. ACD is a switch software feature that processes high-volume incoming, outgoing, and internal calls and distributes them to groups of extensions called hunt groups or splits. The switch also sends information about the operation of the ACD to the *CentreVu* CMS which stores and formats the data and produces real-time and historical reports on ACD activity.

For more detailed information about ACD, read the feature description in the product documentation that came with your switch.

What a Switch Does

A **switch** is an electronic device that processes incoming, outgoing, and internal calls and connects them to the proper destinations. The telephone company switch in your local area is called a **Central Office (CO)**. A switch owned by a company or organization also processes incoming, outgoing, and internal calls. Throughout this appendix, the term switch is used to refer to a company or organization's switch. This appendix describes basic ACD capabilities for the following Lucent Technologies switches:

- *DEFINITY®* Enterprise Communications Server
- *DEFINITY* Communications System Generic 3
- *DEFINITY* Communications System Generic 2.

Trunks, Trunk Groups, and Extensions

Incoming calls to a company first pass through the CO. The CO sends calls to the company switch over **trunks** (telephone lines that carry calls between two switches, between a CO and a switch, or between a CO and a phone)*.

The CO receives dialed digits from the caller, processes the digits, and seizes a trunk that is assigned those digits. After the CO seizes a trunk, it sends a continuing transmission to the destination phone or switch, and no other calls can be sent over that trunk until the current call disconnects.

Since a trunk can carry only one call at a time, **trunk groups** are usually created. A trunk group is a group of trunks that are assigned to the same digits. With a trunk group, the CO receives the digits of a dialed phone number and checks the trunk group assigned to that number to see if any of the trunks are available. The CO then seizes an available trunk. As many simultaneous calls can be made over a trunk group as there are trunks in that trunk group. A trunk group, therefore, can carry multiple calls for the same phone number. When a trunk group carries incoming calls (that is, calls made outside the company's switch location) to the switch, the switch then connects the calls to their proper destinations within the company.

The switches previously listed, in addition to connecting incoming calls to the proper destinations, are also like private COs for company employees. That is, employee phones are connected to a switch by

* Trunks can carry incoming calls, outgoing calls, or both. However, the Automatic Call Distribution (ACD) feature and the *CentreVu* CMS are primarily concerned with incoming calls.

telephone lines called **extensions**. Extensions are then assigned 3- 4- or 5-digit numbers within the switch software, and these numbers become the employee phone numbers for internal (intra-company) calls.

Direct Inward Dialing Processing

Extension numbers may also serve as the final digits of employee phone numbers for incoming calls. That is, the CO may assign only a 2- 3- or 4-digit prefix to a trunk group. Then, when a 7-digit employee phone number is dialed, the call is processed as follows:

1. The CO processes the prefix of the dialed number, and then seizes a trunk in the trunk group that is assigned that prefix.
2. The CO passes the remaining digits of the dialed number to the switch.
3. The switch recognizes the remaining digits as an employee extension number and sends the call to that extension.

This kind of processing is called **Direct Inward Dialing** (DID). With DID processing, incoming trunks do not connect the CO directly to an employee's phone; instead, the incoming trunks are pooled by the switch, and this pool of trunks is then shared by employee phones.

As an example of DID processing, say that Employee A has the external phone number 538-1000 and the extension number 1000. Employee B has the phone number 538-9999 and the extension number 9999. The steps in completing calls to Employees A and B might be as follows:

1. Employee A's client dials 538-1000.
2. The CO serving Employee A's company identifies the digits 538 (the common prefix for all phone numbers to that company) and seizes Trunk 1 in the trunk group assigned the digits 538.
3. The CO passes the digits 1000 to the switch at Employee A's company.
4. The switch identifies the digits 1000 as Employee A's extension number and sends the call to Employee A's extension.
5. Employee A's phone rings and Employee A answers.
6. Meanwhile, Employee B's client dials 538-9999.
7. The CO identifies the digits 538 and seizes Trunk 2 in the trunk group assigned the digits 538.
8. The CO passes the digits 9999 to the switch.

9. The switch identifies the digits 9999 as Employee B's extension number and sends the call to Employee B's extension.

10. Employee B's phone rings and Employee B answers.

While Employees A and B continue to talk, Trunks 1 and 2 in the 538 trunk group will not accept any more calls, so another call beginning with the digits 538 will seize yet another trunk in the trunk group.

Automatic-In Processing

Besides DID, **automatic-in** processing can also be used. With automatic-in processing, the CO processes all of the digits of an incoming call. The CO then seizes a trunk from the trunk group, but since processing is complete, the call connects directly to a destination identified in the switch software. That destination can be a phone, a **queue** (in which callers wait to be answered in the order in which their call was received), or special treatment like an announcement.

The Attendant

Incoming calls can also go to a switch **attendant**. A switch attendant is a person who manually routes calls to their proper destinations using an attendant console (which is like a call switchboard). Normally an attendant serves as an internal operator who transfers calls to the proper extensions. Often, a switch will have more than one attendant, and all of the switch's attendants will answer calls directed to the **attendant queue**, which holds calls until an attendant is available. The attendant queue receives internal calls made from employee extensions, and also receives incoming calls through DID processing and automatic-in processing. Attendant call handling varies, depending on the company's needs. However, if the attendant has an automatic-in number, it will normally be the number published in the phone book, and the DID number will most likely be used by off-site employees who know only the attendant's extension number.

Centralized Attendant Service (CAS) is a switch feature that enables attendants to be consolidated at one private-network location. The attended location is called the CAS main and each unattended location is called a CAS branch. At branch locations, calls requiring attendant services route by way of Release Link Trunks to the main location.

Figure A-1 shows a switch that has an attendant and extensions, and uses both DID and automatic-in call processing.

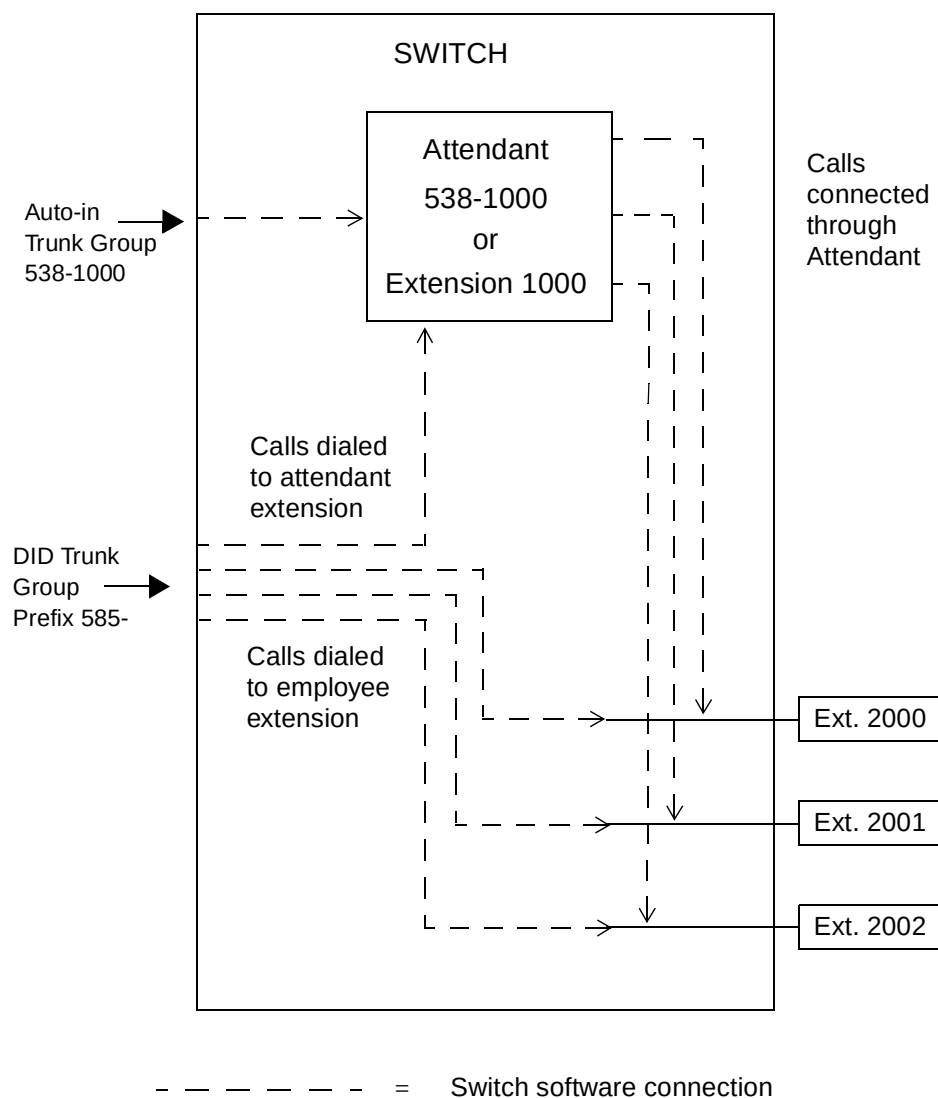


Figure A-1: Typical Call Processing on a Switch Without ACD

What the ACD Does

Automatic Call Distribution (ACD) is a switch feature that processes high-volume incoming and internal calls and distributes them to groups of extensions called hunt groups or **splits**. A voice response port or a person who answers ACD calls is called an **agent**. Companies that operate high-volume call-answering centers, for example, a catalogue sales center, a reservations center, or a customer service center, use the ACD feature to process incoming calls and distribute them to agents.

In addition to agents, each ACD split can be assigned a split supervisor. The split supervisor uses various switch and *CentreVu* CMS features to monitor split and agent performance and to provide assistance if necessary.

Maintaining trunks from the CO to the switch and hiring agents to answer calls costs money. However, if customers who call to purchase goods or services have difficulty reaching an agent and, therefore, stop trying to get through, the call center loses revenue. Call center management needs, therefore, to determine how many trunks and agents are necessary to minimize costs and maximize the ability of customers to purchase goods or services. Management can then set up and maintain the ACD accordingly.

Automatic-In Processing of ACD Calls

Through switch administration, each automatic-in trunk group is assigned to an ACD split. All calls that come in on an automatic-in trunk group are directed to the assigned split. Then the ACD software distributes the calls to the agent extensions assigned to the split according to the assigned call distribution method (described later).

For Generic 2, once trunk groups have been initially assigned to splits, *CentreVu* CMS can be used to reassign trunk groups to different splits. For information about reassigning trunk groups from *CentreVu* CMS, see Chapter 6, “ACD Administration.”

DID Processing of ACD Calls

Generic 3 enables you to dial directly to various extensions such as a VDN, a hunt group, an agent, or a login ID. Each extension can be assigned to a split as a DID extension.

For Generic 2, DID extensions can be assigned to a split. These extensions are called **associated extensions**. An associated extension is not an agent extension; it is, instead, a dummy extension in the switch software that sends internal calls and incoming DID calls (if the switch

has DID trunk groups) to a split. ACD software distributes these calls to the agent extensions assigned to the split.

Note

For DID processing, trunk groups are not assigned to the split. The creation of associated extensions is sufficient to send calls arriving over DID trunk groups to the appropriate split.

Each split can receive incoming calls through DID processing, automatic-in processing, or both. Automatic-in trunk groups carry calls only to the split, whereas DID trunk groups carry calls to any extension identified in the switch software, not just a split.

Figure A-2 shows an example of call processing on a switch with an ACD.

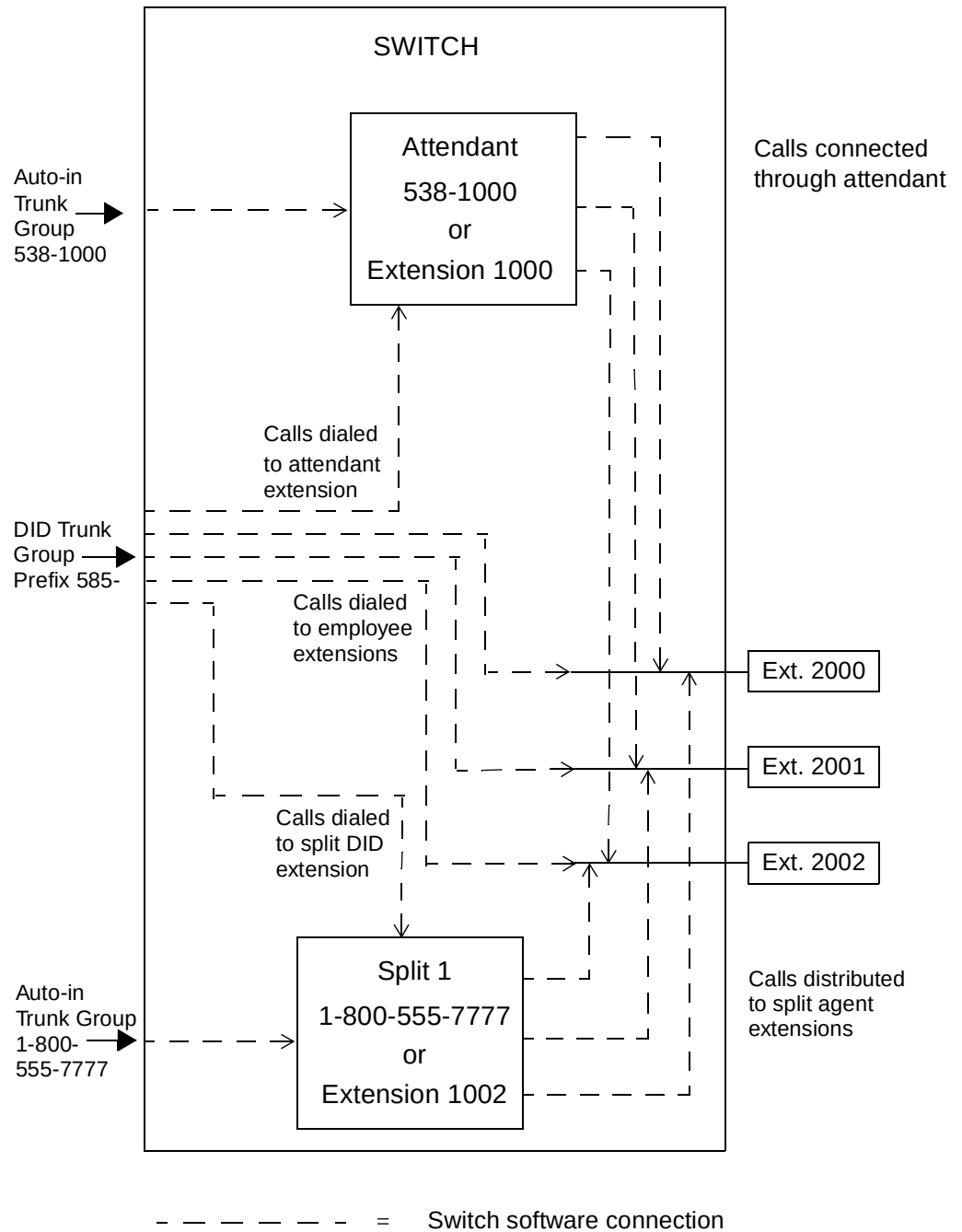


Figure A-2: Call Processing on a Switch with ACD

Split Queues

When a call arrives at a split, the ACD software checks to see if an agent is available to handle the call. If an agent is not available (that is, all agents are busy), the call enters the split's queue.

Note

For the *DEFINITY* ECS and Generic 3 switches, calls queue only if no agents are available, a queue is assigned to the split, and the queue is not full. If the queue is full, the caller hears a busy tone or the call goes to coverage. If the split is vector controlled, then this step will fail. Furthermore, if no agents are logged into the split or if all agents are in AUX work mode (described later), calls do not queue.

For Generic 2 switches, every call enters the split's queue. However, if an agent is available, calls do not wait in queue.

A **split queue** is a holding area for calls waiting to be answered, usually in the order in which they were received. When a call is put into queue, the caller may hear one or more delay announcements, music, and/or silence, depending on the treatment assigned for the split. (Treatment of calls in queue is assigned through switch administration.) Calls enter the queue at the bottom and move toward the top or head of the queue. After a call reaches the head of the queue, it connects to the next available agent.

Note

For the *DEFINITY* ECS and Generic 3 and Generic 2 switches with the Call Vectoring feature, all call treatment including routing, queuing, announcements, and music is specified by call vectors.

Priority and Normal Split Queues

Each split can have two queues: a **normal queue** and a **priority queue**. A split always has a normal queue and can also be assigned a priority queue. The ACD distributes all calls in the priority queue before it distributes any calls in the normal queue. Therefore, the priority queue, if one exists, must be empty before the ACD distributes calls in the normal queue.

For the *DEFINITY* ECS and Generic 3, priority queuing may be assigned in the Class of Restriction (COR) associated with the split extension number. A split may also be assigned **Priority Queuing on Intraflow**, which means that calls to that split, if rerouted to another local split, will enter the destination split's priority queue.

For Generic 2, automatic-in trunk groups and/or DID extensions are assigned to the appropriate queue (normal or priority) at the same time

they are assigned to the split. Also for Generic 2, multiple DID extensions and automatic-in trunk groups can be assigned to the normal queue, and multiple automatic-in trunk groups may be assigned to the priority queue. However, only one DID extension can be assigned to the priority queue.

Any calls made to a split using the priority DID extension number or the priority trunk group phone numbers enter the priority queue if no agents are available. Calls made to the split using normal DID extensions or trunk groups enter the normal queue if no agents are available.

As an example of priority/normal queuing to a split in Generic 2, say that an airlines reservations center uses Split 1 for the Western Region. Call processing to the split may be set up as follows:

- **Automatic-In Trunk Groups**

- Trunk group 24, with the number 1-800-538-1000, carries Split 1 calls that regular customers throughout the region make. Trunk group 24 is given normal status.
- Trunk group 25, with the number 538-1001, carries Split 1 calls that customers within the local area code make. Trunk group 25 is given normal status.
- Trunk group 26, with the number 538-1002, is a local number that travel agents use. Trunk group 26 is given priority status.

- **DID Extensions**

- DID extension number 1003 is used by airline employees who want to make reservations. They may use this number internally or they can add the prefix 538- when they dial externally. Extension 1003 is given normal status.
- DID extension number 1004 is used only by airline executives to make reservations. Extension 1004 is assigned priority status.

Note

The first DID (associated) extension that is assigned to a normal queue is called the Queue Directory Number (QDN). The DID extension that is assigned to a priority queue is called the Priority Queue Directory Number (PQDN).

Split Queue Size for ECS and Generic 3

Queue size is established through switch administration on the *DEFINITY* ECS Release 5* and the Generic 3 switch. Calls arriving after the administered queue limit is reached receive a busy signal or go to the split's busy coverage if administered. (If the split is vector controlled, then this step will fail.) Or, calls can be redirected to a local or remote destination. See "Intraflow and Interflow" in this appendix for more information.

Split Queue Size for Generic 2

The number of calls that can queue to a split on Generic 2 is limited only by the switch's total number of physical trunks and software connections. Call redirection can be established through switch administration or from *CentreVu* CMS using the Split Parameters window. See Chapter 6, "ACD Administration."

Note

If the switch and *CentreVu* CMS have the Call Vectoring feature, the number of calls that can queue to a split can be limited through vector administration using either a switch administration tool or *CentreVu* CMS.

* The *DEFINITY* ECS is also referred to as G3V5.

Announcements for Calls in a Split Queue

When a call enters a split queue, the caller hears ringing until the call is connected to an agent or an announcement. Depending on the treatment assigned to a split, the caller may hear one or two announcements, music, or silence. An **announcement** is a recorded message that provides information such as the destination the call has reached or a company's business hours, or it tries to persuade the caller to stay on the line.

Announcements and **delay time** are assigned to splits through switch administration. Delay time is the amount of time a call will wait in queue before receiving an announcement. If a call connects to an agent before the delay time expires, the caller does not hear the announcement. If a call connects to an agent while an announcement is playing, the announcement stops. After the first announcement plays, the caller hears music or silence until the second announcement plays or the call connects to an agent. The type of caller feedback (music or silence) is also assigned to a split through switch administration.

Note

For the *DEFINITY* ECS and Generic 3 and Generic 2 switches with the Call Vectoring feature, announcement capabilities are more flexible than those described in this section. See Appendix B for *DEFINITY* ECS and Generic 3 call vectoring. See Appendix C for Generic 2 vectoring.

The *DEFINITY* ECS and the Generic 3 switch support both internal and external announcement devices.

ECS and Generic 3

The announcement delay time can be from 0 to 99 seconds. A 0-second delay time causes a **forced announcement**, which means callers always hear the entire first announcement, whether an agent is available or not. A second announcement can be administered to recur each time the announcement delay time expires.

Announcement Queuing

External and internal announcement units are available. Queuing for external announcements works like Generic 2 announcement queuing except the queue varies depending on the type of switch used. The number of calls that can be queued to an announcement depends on the size of the switch/ECS you have. The capacity tables in the Definity Feature Description manual have details for each switch/ECS model.

Queuing for internal announcements is quite different. Internal announcements are delivered by a 16-channel announcement board,

and a call receives an announcement only when it connects to one of the 16 announcement channels. Therefore, all calls wait in a single queue to access a channel on the announcement board regardless of the split announcement they are waiting to receive. The same announcement can be delivered over multiple channels. Announcements are delivered on demand, so a call that connects to a channel receives an announcement immediately and does not have to wait for the announcement to finish and start again.

If a Generic 3 announcement queue is full, the system will continue to try every 10 seconds to connect a call to the proper announcement until the call connects to an agent, connects to an announcement, or enters the announcement queue.

The following rules apply to Generic 3 announcements:

1. Calls directly entering a split queue always receive a forced first announcement if assigned. The caller also hears first and second delay announcements if administered and delay intervals are met.
2. Calls that reach a split by way of Call Coverage from another split (Intraflow) or a station do **not** receive a forced or delay first announcement at the destination split. The caller hears a second delay announcement if administered and the delay interval is met.
3. Calls that reach a split by way of Call Forwarding from another split (Interflow) or station do receive delay first and second announcements if administered and the delay intervals are met.

Generic 2

The announcement delay time can be from 2 to 30 seconds. As many as 255 announcements can be created for a Generic 2.2. For Generic 2.1, as many as 60 unique first announcements can be created. Each split may have its own unique first announcement; however, the second announcement must be the same for all splits.

Announcement Queuing

Calls are always connected to the beginning of an announcement. If the announcement is not available after the announcement delay time expires, calls enter an announcement queue. When the announcement starts, all calls in the announcement queue receive the announcement simultaneously. The announcement queue can hold up to 255 calls.

Answer Supervision and Abandoned Calls

Answer Supervision

Answer supervision is a signal sent by the switch to the serving Central Office (CO). This signal tells the CO that an incoming call has been answered and that the CO should begin tracking toll charges for the call (if they apply). Answer supervision is sent immediately before a call connects to an agent's voice terminal, to music, or to an announcement.

Abandoned Calls

An abandoned call is a call that reaches a call center, but does not connect to an agent because the caller hangs up. A call can abandon while in queue or while ringing at an agent position. Abandoned calls represent lost sales or lost good will. Adequate split staffing and effective use of announcements can reduce the number of abandoned calls. Splits should be staffed so that calls do not have to wait in queue for an unreasonable amount of time, and announcements can be used to persuade the caller to wait until someone answers the call.

Abandoned Call Search

If answer supervision is sent before a caller abandons, ghost calls can occur. A ghost call is a call that is sent to an agent after the caller hangs up. Ghost calls occur because, after a caller hangs up, some COs wait 2 to 25 seconds before sending a disconnect signal to the switch. Ghost calls are a problem because they waste agents' time, and they can delay or prevent other calls from connecting to an agent.

To minimize this problem, Abandoned Call Search can be assigned to specific trunk groups for the *DEFINITY* ECS and Generic 3 switch, and assigned as a switch-wide feature for Generic 2. With Abandoned Call Search, the switch checks the incoming trunk before delivering an ACD call to an agent. If the trunk is on-hook at the CO (the call has been abandoned), the switch releases the trunk and does not deliver the call. If a call is still in progress on the trunk, the switch delivers the call to an agent.

Intraflow and Interflow

ACD calls can be redirected to another split or other local or remote destinations. Redirecting calls to a local destination is called **intraflow**. Redirecting calls to a destination outside the switch is called **interflow**. Intraflow and interflow are set up differently for the *DEFINITY* ECS, Generic 3 switch, and Generic switch2.

Note

If Call Vectoring is active on the *DEFINITY* ECS or Generic 3 or Generic 2 switch, redirection of calls differs significantly from the following intraflow/interflow descriptions. See Appendix B and Appendix C.

ECS and Generic 3

As many as three *intraflow* destinations **OR** one *interflow* destination can be established for a split through switch administration. Intraflow uses the Call Coverage feature to redirect ACD calls to a coverage path that contains one, two, or three of the following internal destinations:

- An extension
- An ACD split (including *AUDIX* and Message Center splits) or Hunt Group*
- An attendant group
- An announcement followed by a forced disconnect.

Call Forwarding can be used to intraflow calls unconditionally.

Interflow destinations are the same as those listed above for intraflow (plus the CAS attendant), except interflow sends calls to destinations outside the switch.

If a split is assigned more than one intraflow destination, the switch tries each destination in the order in which it was assigned. If no destination can accept the call, the switch leaves the call in the original split's queue. If an interflow destination is specified and activated, the switch tries only that destination. If the interflow destination cannot accept the call, the caller hears a busy signal.

ACD splits can be set up to intraflow calls unconditionally. Unconditional intraflow redirects all calls to the specified destination. Unconditional intraflow is normally used to redirect calls when a split is not staffed.

* The term "Hunt Group" refers to groups of extensions that receive distributed calls. The term "split" refers to a hunt group that is measured by *CentreVu* CMS.

Splits can also be set up to intraflow calls when one or all of the following criteria are met:

- **Don't Answer**
Calls redirect if not answered within the assigned Don't Answer Interval (1 to 99 ringing cycles).
- **Busy**
Calls redirect when the split's queue is full; that is, when the number of calls in queue equals the administered queue length.
- **No Agents Staffed or All Agents in AUX Mode**
Call redirect if there are no agents staffed or if all agents are in the AUX work mode.

If an intraflow destination has a queue, that queue may be assigned an inflow threshold. The inflow threshold, which is established through switch administration, is the length of time the oldest call in queue has waited. Once the inflow threshold is reached, that queue does not accept intraflowed calls and the switch tries the next administered destination.

Through switch administration, a split can be assigned Priority Queuing on Intraflow which allows intraflowed calls to enter the priority queue at the destination split.

The following types of intraflow/interflow can be used for a split:

1. Don't Answer Time Interval intraflow (using the Call Coverage feature)
2. Busy intraflow (using the Call Coverage feature)
3. Unconditional intraflow (using the Call Forwarding—All feature)
4. Unconditional interflow (using the Call Forwarding—All feature).

Note When calls are intraflowed using the Call Coverage feature, *CentreVu* CMS only reports inflowed and outflowed calls if the call queues to the original split. For example, a call that covers using the busy criterion will not be recorded as in/outflowed since it could not queue to the original split. Calls that queue before covering using the don't answer criterion are recorded as in/outflowed calls.

Setting Up Intraflow/Interflow

A split can have either intraflow or interflow active, but not both. However, both conditional (Call Coverage) and unconditional (Call Forwarding) intraflow can be active for a split at the same time. In this case, unconditional intraflow is first invoked for the split's incoming calls. Then, after the switch forwards a call to the unconditional destination, the switch

uses the conditional intraflow criteria to determine whether to redirect the call to the next destination. Thus, when unconditional and conditional intraflow are used together, the conditional intraflow criteria are applied to the forwarded-to destination, not to the original split.

This combination of unconditional and conditional intraflow allows Dialed Number Identification Service (DNIS) numbers to appear on agent display voice terminals. In this case, the DNIS number is actually a dummy split extension (that is, the split extension has no assigned agent extensions). The intraflow destinations are the real splits (with staffed agents). With such a configuration, *CentreVu* CMS will count incoming calls for the DNIS number (that redirected via unconditional intraflow to real splits) as outflows. *CentreVu* CMS will also count the calls to the destination splits as ACD calls and inflowed calls. And regardless of the split where calls actually connect to agents, the agents will see the DNIS (dummy split) number on their display terminals.

The intraflow criteria and destinations are assigned through switch administration. Console permissions and the Call Forwarding dial access code are also assigned through switch administration. Unconditional intraflow or interflow can be activated by entering the Call Forwarding dial access code from a station with console permission, the split's extension, and the interflow or intraflow destination number.

Note

For the *DEFINITY* ECS and Generic 3, the split supervisor cannot establish conditional intraflow from a voice terminal. Furthermore, *CentreVu* CMS cannot be used to set up or activate intraflow/interflow.

Generic 2

As many as three intraflow destinations and one interflow destination can be assigned to a split through switch administration and operations on the split supervisor's voice terminal.

Any local extension number can be an intraflow destination including a Queue Directory Number (QDN) or Priority QDN of an ACD split (including *AUDIX*® and Message Center splits), a local attendant, or a Centralized Attendant Service (CAS) attendant.

Note

If more than one intraflow destination is assigned, only the last destination can be a QDN, PQDN, local attendant or CAS attendant.

Calls are interflowed outside the switch using the Automatic Alternate Routing (AAR), Automatic Route Selection (ARS), or World Class Routing (WCR) feature. Consequently, an interflow destination must be a

telephone number that can be processed by one of these call-routing features.

ACD splits can be set up to intraflow/interflow calls unconditionally or when preassigned thresholds are met. Unconditional intraflow/interflow redirects all calls, even calls already waiting in queue, to the intraflow/interflow destination. Unconditional intraflow/interflow is normally used to redirect calls when a split is not staffed.

Threshold intraflow/interflow limits the number of calls that can enter a split queue. Outflow (also called overflow) and inflow thresholds can be assigned through switch or *CentreVu* CMS administration. An outflow threshold is the number of calls in queue that will trigger intraflow/interflow. An inflow threshold is the number of calls in queue at a destination split that will prevent intraflowed calls from entering the destination split's queue.

When a split's outflow threshold is reached, the switch redirects the call at the head of the queue. This is usually the **oldest call waiting in that split's queue**. If the call intraflows to another ACD split, it could become the last call in that split's queue, resulting in a long wait time. One way to reduce this wait time is to redirect calls to priority queues whenever possible. For example, if the destination is another split, and that split has a priority QDN, the priority QDN can be used for intraflow.

When a split's inflow threshold is reached, intraflowed calls cannot enter the queue. If the original split (the split that intraflowed the call) is assigned more than one intraflow destination, the switch tries the next intraflow destination. If none of the destinations assigned to the original split can accept the call, the call remains in the original split's queue. Therefore, if possible, the last destination should always accept calls. That is, the last destination should be an ACD split, a local attendant, or a CAS attendant.

If an interflow destination is specified, it must be the last destination. Interflow always succeeds if a trunk is available to route the call. If no trunk is available, the call remains in queue at the original split.

Note	Unconditional and threshold intraflow/interflow cannot be used simultaneously for the same split.

Setting Up Intraflow/Interflow

The **dial access codes** for interflow and intraflow are assigned through switch administration. For quick dialing, a dial access code can be assigned to a button on a voice terminal. The split supervisor or an authorized voice terminal user activates intraflow/interflow by dialing the appropriate access code (or pressing the appropriate voice terminal button) followed by the destination extension or telephone number.

The intraflow/interflow activation procedure must be repeated for each destination. The switch checks intraflow/interflow destinations in the same order in which they were activated.

The following types of intraflow/interflow can be used for a split:

1. Threshold intraflow (using the Call Forwarding—Busy and Don't Answer feature)
2. Unconditional intraflow (using the Call Forwarding—Follow Me feature)
3. Threshold interflow (using Overload Balancing)
4. Unconditional interflow (using Overload Balancing)
5. Unconditional interflow (using the Call Forwarding—Follow Me feature in a multiple switch network). The destination for this type of interflow should be an *AUDIX* split or a Message Center split.

The following types of intraflow/interflow may be used together:

- Types 1 and 3
- Types 2 and 4
- Types 2 and 5.

If the Call Forwarding—Follow Me feature is used to set up interflow, the maximum number of destinations is three—the interflow destination and two intraflow destinations.

Using *CentreVu* CMS to Set Up Intraflow

Intraflow can also be set up and activated from the *CentreVu* CMS. The Split Parameters window (see Chapter 6, “ACD Administration”) can be used to:

- Specify the type of intraflow: all (unconditional), conditional (calls intraflowed according to the assigned outflow threshold), or none.
- Specify up to three intraflow destinations.
- Specify the outflow threshold of the original split and the inflow threshold of the destination split.

Using the Timetable function of *CentreVu* CMS (see Chapter 3, “Timetable and Shortcut”), intraflow can be activated automatically according to the specified schedule.

Note

CentreVu CMS cannot be used to set up or activate interflow. The supervisor must activate interflow manually when needed.

Night Service for the ECS and Generic 3

The *DEFINITY* ECS and Generic 3 switch offer an alternative form of call routing called Night Service. Night Service redirects all calls to one of the following internal destinations:

- An ACD split
- An extension
- An attendant group
- An announcement with forced disconnect.

The following types of Night Service are available:

- **Hunt Group (Split) Night Service**

Hunt Group Night Service redirects all calls arriving at a split to an internal destination. The Night Service destination for the split and the voice terminal button used to activate the feature are assigned through switch administration.

- **Trunk Group Night Service**

Trunk Group Night Service redirects all calls arriving over a split's assigned trunk groups to an internal destination. The Night Service destination for the trunk group and the voice terminal button used to activate the feature are assigned through switch administration.

Trunk Group Night Service by itself does not guarantee that all calls to a split will be redirected. Calls from local extensions and DID calls will still connect to the split.

Note

Trunk Group Night Service and Hunt Group Night Service can both be active at the same time. If the Trunk Group Night Service is active, its destination will be used for calls that come in over the trunk group even if they go to a split that has a Hunt Group Night Service destination assigned.

- **System Night Service**

System Night Service redirects all calls arriving over **all trunk groups** to the Night Service destination. System Night Service overrides any Hunt Group Night Service set up for an individual split. If Trunk Group Night Service is active for a particular trunk group, System Night Service does not affect that trunk group.

Note

When any type of Night Service becomes effective, calls already in a split's queue are not redirected. To avoid dissatisfied callers, agents should continue to staff the split until the queue is empty.

How Calls Are Distributed to Agents

ACD calls are delivered to agents according to the type of call distribution (also known as hunting) that is assigned to the split. The following types of call distribution can be assigned to a split through switch administration:

- Direct
- Circular
- Most Idle Agent (MIA) [also called Uniform Call Distribution (UCD)]
- Expert Agent Distribution (EAD).

Note

The following descriptions of ACD call distribution assume that the Multiple Call Handling (MCH) feature is **not** assigned. Agent availability is different for splits assigned the MCH feature.

Some types of call distribution are not available with some versions of switch software.

Direct

ACD software searches for an available agent in the order that extensions were assigned to the split (through switch administration), starting with the first extension assigned to the split. This type of call distribution is most useful when management wants the most effective or most experienced agents to handle more calls. Agents are rank-ordered from most to least effective and then are assigned to the split in that order. Direct call distribution is called Direct Department Calling (DDC) for the *DEFINITY* ECS and Generic 3 switches. For the *DEFINITY* ECS and Generic 3 switches that have the Expert Agent Selection feature, DDC cannot be assigned to skills. However, Expert Agent Distribution (EAD) can be used to ensure that the most expert agent available receives the call.

Circular

ACD software searches for an available agent in the order that extensions were assigned to the split, starting with the agent after the agent who handled the last ACD call. This type of call distribution provides a balanced workload. Circular distribution is not available on the *DEFINITY* ECS or on Generic 3 switches.

Most Idle Agent (Uniform Call Distribution)

ACD software searches for the agent extension that has been idle (waiting) the longest and distributes the call to that extension if the agent is available to handle an ACD call. This type of call distribution, which is sometimes called “true ACD,” ensures a high degree of equity in agent workloads even when call-handling times vary. For the *DEFINITY* ECS and Generic 3, MIA distribution is called Uniform Call Distribution (UCD).

ACD software determines which agent extension has been idle the longest by maintaining an ordered list (queue) of agents who are eligible to receive the next ACD call. Eligible agents enter the queue at the bottom and move toward the top (also called the head of the queue). The agent at the top of the eligible-agent queue (the agent who has been in queue the longest) receives the next ACD call unless the agent is not available at the time the call is to be distributed. If the agent at the top of the queue is not available, the ACD software checks the availability of the next agent in queue until an available agent is found.

The *DEFINITY* ECS and Generic 3 switch use different criteria than the Generic 2 switches to determine if an agent is eligible to receive an ACD call. These differences are described below.

ECS and Generic 3

When an agent completes an ACD call, the agent is added to the bottom of the eligible-agent queue for the split or skill associated with the call. (Skills apply only to the *DEFINITY* ECS and Generic 3 switches with the Expert Agent Selection feature.) *DEFINITY* ECS also offers the option called “MIA across splits/skills” to put an agent at the bottom of *all* agent queues when the agent completes *any* ACD call. Agents move toward the top of the eligible-agent queue as long as they remain staffed and available or on AUXIN or AUXOUT extension calls from the available state, or on an ACD call for another split or skill (unless the “MIA across splits/skills” option is turned on). Agents in ACW are in eligible agent queues on G3 switches. You can choose whether these agents are or are not in the eligible-agent queues for the *DEFINITY* ECS.

An agent is marked as unavailable to take an ACD call if the agent:

- is in ACW,
- is on an AUXIN or AUXOUT extension call from the available state, or,
- is on an ACD call for another split or skill.

The agent remains in queue moving toward the top of the queue. Agents in multiple splits or with multiple skills enter multiple eligible-agent queues. The agents’ progress in each queue is independent of any

activity in other queues. Agents in the AUX state are not in the eligible-agent queue.

Generic 2

Two types of MIA distribution are available. For both types, agents are added to the bottom of the eligible-agent queue at the completion of login and when they complete an ACD call* and any associated After Call Work (ACW).

Agents move toward the top of the eligible-agent queue as long as they remain staffed and available, in the AUX state, or on an AUXIN extension call (agent states, also called agent work modes, are described later in this section). If an agent is in the AUX state or is on an AUXIN extension call, the agent is marked as unavailable to take an ACD call but remains in queue moving toward the top of the queue.

The difference between the two types of MIA distribution is whether agents maintain their place in queue while on an AUXOUT extension call (made from the AUX state or from the available state) or not. Agents either maintain their place in queue or move to the bottom of the eligible-agent queue when they complete an AUXOUT call. The type of MIA distribution is assigned on a per-split basis through switch administration.

Generic 2 switches that have the Expert Agent Selection feature have a single eligible-agent queue for each skill tens group. Agents move to the bottom of the eligible-agent queue when they complete an ACD call for any skill.

* An ACD call that rings at an agent extension is considered completed even if the caller abandons the call before the agent answers.

Expert Agent Distribution

Expert Agent Distribution is only available with the *DEFINITY* ECS or the Generic 3 (Version 2 or later) switches that have the Expert Agent Selection feature. This method of call distribution adds a layer of processing on top of the Most Idle Agent distribution call processing, described in the preceding paragraphs.

Call Distribution for ECS with EAS

This additional layer of processing sorts the agents in the eligible-agent queue into multilayered queues based on skill level. Agents with the skill assigned at higher-priority levels will appear in the eligible-agent queue ahead of agents with the skill assigned at lower-priority levels. The call will be delivered to the most idle most expert agent available, rather than to the most idle agent.

Call Distribution for Generic 3 Version 2 or Later with EAS

For Generic 3 Version 2, Version 3, and Version 4 switches with EAS, the additional layer of call processing sorts the agents in the eligible-agent queue into primary and secondary skill groups, in effect, creating two eligible-agent queues for each skill. ACD software searches for an available agent extension in the primary skill group before searching the secondary skill group. An ACD call will only be distributed to an available agent in the secondary skill group if no agents are available in the primary skill group. Other aspects of MIA call distribution work the same as described above.

How Agents Handle Calls

An agent can receive split calls and, in most cases, personal calls that are not related to a split. Calls distributed to an agent's voice terminal by the ACD feature on the switch are considered **ACD calls**. Calls dialed directly to an individual agent using the agent's extension number (such as internal calls and DID extension calls) are called **extension-in (EXT-IN) calls**. Outgoing calls the agent makes are called **extension-out (EXT-OUT) calls**. EXT-IN and EXT-OUT calls are considered **non-ACD calls**.

Note

The capability of a voice terminal to receive EXT-IN calls or to make EXT-OUT calls can be restricted through switch administration.

The following descriptions of agent call handling assume that the Multiple Call Handling (MCH) feature is **not** assigned. Agent availability and call handling are different for splits assigned the MCH feature.

ACD calls are distributed only to "available" agent extensions. To be considered available, an agent must first staff an agent extension and then select a call-answering mode (automatic in or manual in).

Staffing an Agent Extension on the ECS or Generic 3 (Without EAS)

To staff an agent extension on the *DEFINITY* ECS or the Generic 3 switch without the EAS feature, an agent must dial a login access code or press the **LOGIN** button on the agent's voice terminal. The agent must then dial a split number and a login ID. The login ID length, the login dial access code, and, if desired, the **LOGIN** button are assigned through switch administration. The split number may also be assigned to the **LOGIN** button or to another voice terminal button.

Staffing Multiple Splits

An agent can log in from any extension assigned to a split. For the *DEFINITY* ECS and the Generic 3 switch, an agent can log into as many as three splits. To the switch and *CentreVu* CMS, each login counts toward the maximum number of agent members that can be measured. That is, if four agents are each logged into three splits, the agent member count is 12. For Generic 2, an agent can log into only one split.

Staffing an Agent Extension on Generic 2 (Without EAS)

To staff a split extension on Generic 2, an agent must dial an access code or press a voice terminal button. Depending on whether *CentreVu* CMS collects data for an agent extension or not, one of the following buttons can be assigned to an agent's voice terminal:

- **STAFFED**

The STAFFED button tells the ACD that an agent is preparing to receive calls on the extension. To receive ACD calls, the agent must also press the **AUTO-IN** or **MANUAL-IN** button, both of which are described later in this appendix.



CentreVu CMS does not gather any data on an agent that staffs an extension using the STAFFED button.

- **LOGIN**

The LOGIN button tells the ACD that the agent is going to begin logging in. After pressing the LOGIN button, the agent must dial a 4-digit login ID. For Generic 2, the login ID must be entered twice.



After the agent logs in, the extension is considered staffed and *CentreVu* CMS begins to gather data on that agent's activity. Logging in is required for *CentreVu* CMS data collection.

STAFFED and LOGIN dial access codes and voice terminal buttons are assigned through switch administration.

Call Answering Modes

After staffing an extension, the agent is in the **auxiliary work (AUX-WORK)** mode, which is considered non-ACD work. The agent is not yet available to receive ACD calls. To become available for ACD calls, the agent must press one of the following buttons to select a call answering mode:

- **MANUAL-IN**

The MANUAL-IN button tells the ACD that the agent extension is available for an ACD call. The ACD then distributes a call to the agent according to the established call distribution method. When the call ends, the agent automatically enters the **After-Call-Work (ACW)** state. While in ACW, the agent is not available to receive ACD calls. When ACW ends, the agent presses MANUAL-IN to receive another ACD call. The manual-in mode is most effective if an agent must perform call-related tasks after finishing each ACD call.

- **AUTO-IN**

Like the MANUAL-IN button, the AUTO-IN button tells the ACD that the agent is available for an ACD call. However, when the call ends, the agent is immediately available for another ACD call according to the established call distribution method. The agent does not have to press any buttons to receive another ACD call. This type of call answering increases the number of calls that agents can answer in a given period of time and is most effective if agents have little or no call-related work to do after finishing each ACD call.

The *DEFINITY* ECS Release 5 has a timed ACW feature for AUTO-IN operation. This option automatically puts the agent into ACW for a preset length of time at the end of an AUTO-IN call. When the time is up, the agent automatically becomes available to take an ACD call.

MANUAL-IN and AUTO-IN dial access codes and voice terminal buttons are assigned through switch administration.

Ringling Versus Zip Tone for Incoming Calls

When a call arrives at a voice terminal, the agent may hear ringing or **zip tone** (beeping), depending on how the voice terminal is administered. Ringing is recommended when an agent answers calls using the handset. When a call connects to the agent's voice terminal, the voice terminal rings, and the agent picks up the handset to answer the call.

Zip tone is recommended when the agent uses a headset to answer calls. (Zip tone can also be used with a handset, but the agent must hold the handset and listen for the zip tone.) When a call connects to an agent's voice terminal, the agent hears one of the following types of zip tone:

- One burst of zip tone—For calls dialed directly to the split (or agent extension on the *DEFINITY* ECS and the Generic 3 switch)
- Two bursts of zip tone (Generic 2 switches only)—For calls intraflowed from another split
- Three bursts of zip tone (Generic 2 switches only)—For calls interflowed from another location.

Then, without pushing any buttons, the agent greets the caller.

Ringinɡ (called "manual answer" in switch administration) or zip tone (called "automatic answer" in switch administration) is established on a per-voice terminal basis through switch administration.

Auxiliary Work and After-Call-Work

To temporarily stop ACD calls from arriving at an agent's voice terminal, an agent can press one of the following buttons:

- **AUXWORK**

The Auxiliary Work (AUXWORK) button temporarily stops ACD calls from arriving at the agent's voice terminal. The agent normally presses this button before doing non-ACD-related work such as taking a break or doing personal business. Instead of unstaffing the extension or logging off, an agent can press this button which places the agent in the auxiliary-work state.

To receive ACD calls again, the agent presses the MANUAL-IN or AUTO-IN button. The AUXWORK button (or the dial access code, if no button is available) is assigned through switch administration.

On the *DEFINITY* ECS and the Generic 3 switch, if an agent is normally logged into more than one split, an AUXWORK button for each split may be assigned. Then, when the agent presses the AUXWORK button for a particular split, the agent will not receive calls from that split. However, the agent will still be available for calls from the other splits the agent is logged into.

Also, if an agent is logged into more than one split/skill and receives an ACD call for one split/skill, the agent is unavailable for calls for other splits/skills.

- **ACW** (ECS, Generic 3)

The After-Call-Work (ACW) button is only available with the *DEFINITY* ECS and Generic 3 switches. This button temporarily stops ACD calls from arriving at the agent's voice terminal. An agent who is in Auto-In mode presses this button during a call so that when the call is finished, the agent will not receive another ACD call and can, instead, do ACD call-related work such as filling out a form, completing data entry, or making an outgoing call. The lamp indicator next to the ACW button lights when the agent is in after-call-work.

When in the manual-in mode, an agent automatically enters ACW when the call ends. However, if the agent needs to get out of Auto-In mode or the auxiliary work state to do additional call-related work, the agent can press the ACW button (or dial the appropriate access code).

Note

On the *DEFINITY* ECS, Generic 3 switch, and Generic 2 switch, an agent can press the MANUAL-IN button (or dial the appropriate access code) while on an ACD call to automatically enter ACW when the call ends.

If an agent is logged into more than one split, pressing the ACW button makes the agent unavailable for calls in all splits. *CentreVu* CMS considers the agent to be in the OTHER state for all splits other than the split in which the agent is currently in ACW.

Other Voice Terminal Buttons Used by Agents

This section describes other buttons that can be assigned to an agent's voice terminal.

- **CALL APPEARANCE** buttons

These buttons are used to place (originate) and answer calls. Two status lamps (red and green) are next to each call appearance button. The red lamp lights when an agent presses an appearance button to make or answer a call. The green lamp flashes to indicate an incoming call.

Except with Multiple Call Handling, incoming ACD calls always arrive at the first call appearance. However, voice terminals may be assigned more appearances to provide additional call-handling capabilities. For example, an agent can use a second call appearance to transfer or place calls since the line will be free of ACD calls. On a two-appearance voice terminal on the *DEFINITY*

ECS and the Generic 3 switch, the second appearance can only be used to originate calls.

For Generic 2 switches, the second appearance on a 2-appearance voice terminal should also be used only to originate calls, though this is not required. This setup prevents extension-in calls or transferred calls from arriving at the agent's voice terminal when the agent is already on an ACD call. On a three-appearance terminal, the first two appearances can be assigned to receive and originate calls, and the third appearance can be originate only. This setup allows an agent to receive two calls at the same time (for example, on the *DEFINITY* ECS, and the Generic 2 or Generic 3 Version 3 and later switches with Multiple Call Handling), yet keeps one line always available for placing and transferring calls.

- **ADD SKILL** (ECS, Generic 3)

For the *DEFINITY* ECS and the Generic 3 Version 2 and later switches with EAS, logged-in agents or voice terminal users with console permissions can press this button to add a skill.

- **ALERT CHANGE** (ECS, Generic 3)

For the *DEFINITY* ECS and Generic 3 Version 4 and later switches, the lamp associated with this voice terminal button flashes when another user changes an agent's assigned skills or moves an agent from his or her current split to a different split. The lamp does not flash when an agent changes his or her own skills from the voice terminal.

- **ASSIST**

Press this button to request help from the split supervisor. The ASSIST button automatically dials the split supervisor's extension and connects the agent to the supervisor. On the *DEFINITY* ECS and Generic 3 switches, pressing the ASSIST button automatically puts the current call on hold. On Generic 2, the agent can press this button after placing an ACD call on hold and then return to the call after talking with the supervisor.

- **AUDIO TROUBLE** (ECS, Generic 3, Generic 2)

For the *DEFINITY* ECS, and Generic 3 and Generic 2 switches, agents press this button to report a call with poor transmission quality to *CentreVu* CMS. The message the switch sends *CentreVu* CMS includes the agent's extension, the trunk being used, and the time of day the trouble occurred. This information is reported in *CentreVu* CMS exception reports and is useful for trouble-shooting

trunk and extension problems. For more information, see Chapter 5, "Exceptions."

Stroke count button "0" is used for reporting audio difficulty.

- **CONFERENCE**

Press this button to add another person to a two-person call. For the *DEFINITY* ECS and Generic 3 switches, an agent with a multi-appearance voice terminal can add up to four additional people to a 2-person call. For the *DEFINITY* ECS, and single-appearance voice terminals on Generic 3 and Generic 2 switches, only one person can be added.

Note

Single appearance voice terminals do not have a CONFERENCE button. Agents must use the RECALL button to conference a call.

If an agent adds another agent into a conference call, the resulting conference is not considered an ACD call for the added agent. The ACD considers the added agent to be on an extension-in call.

- **CALL WORK CODE** (ECS, Generic 3, Generic 2.2)

For *DEFINITY* ECS, and Generic 3 and Generic 2.2 switches, agents press this button and enter up to 16 digits to record the occurrence of a customer-defined event. Call Work Codes are stored on *CentreVu* CMS, not on the switch.

- **CALLER-INFO** (ECS, Generic 3)

For Generic 3 with the Call Prompting feature, agents press this button to display the digits collected by the last "collect digits" vector command.

- **EMERGENCY** (ECS, Generic 3, Generic 2)

Press this button to report a malicious call to the controller. The controller can then trace the call.

- **HOLD**

Press this button to put a call on hold. The ACD will not send any more calls to an agent who has a call on hold. For switches with Multiple Call Handling, an agent can put an ACD or non-ACD call on hold and receive an ACD call by pressing the AUTO-IN or MANUAL-IN button. For the *DEFINITY* ECS, and Generic 3 Version 4 and later switches, with Multiple Call Handling, multiple ACD calls can be delivered automatically to an agent in Auto-In or Manual-In work

mode, provided that an unrestricted line appearance is available on the voice terminal.

Note

Single appearance voice terminals do not have a HOLD button. Agents must use the RECALL button or the terminal's switch-hook to put a call on hold. A single appearance voice terminal **cannot** be used to handle multiple ACD calls.

- **LOGOUT**

Press this button to unstaff the extension and end *CentreVu* CMS collection of agent data.

If an agent pressed STAFFED to staff a voice terminal, pressing STAFFED again unstaffs the voice terminal.

- **RECALL**

Agents using single-appearance voice terminals press the RECALL button to put calls on hold, transfer calls, and create conference calls.

- **RELEASE**

Press this button to disconnect a call.

- **REMOVE SKILL** (ECS, Generic 3)

For the *DEFINITY* ECS and Generic 3 Version 2 and later switches with EAS, logged-in agents or voice terminal users with console permissions can press this button to remove a skill.

- **REPEAT** (Generic 2)

Press this button to repeat a city-of-origin or queue-of-origin announcement. Agents hear a city-of-origin announcement when they receive interflowed calls from a split in another city. Agents hear a queue-of-origin announcement when they receive intraflowed calls from a local split.

- **STROKE COUNT** (ECS, Generic 3, Generic 2)

As many as nine STROKE COUNT buttons can be assigned. Agents press these buttons to record call events of interest. *CentreVu* CMS records and reports stroke-count information. Stroke count button "0" is reserved for audio difficulty.

- **TRANSFER**

Agents normally press the TRANSFER button to transfer calls to other agents or the split supervisor. This button is only available on multi-appearance voice terminals. Single-appearance terminal users must use the **RECALL** button or the terminal's switch-hook.

Agents can also use the TRANSFER button to transfer calls to external destinations. External transfer must be assigned to a voice terminal as a feature over and above the normal transfer feature.

If an agent transfers a call to another agent, the call is not considered an ACD call for the agent receiving the call unless the transferring agent dialed a split extension, VDN, or agent login ID (an EAS capability known as Direct Agent calling). The ACD considers the agent receiving the transfer to be on an extension-in call. For the agent transferring a call, the call is counted as an EXT-OUT call.

- **VUSTATS** (ECS, Generic 3)

For the *DEFINITY* ECS and Generic 3 Version 3 and later switches, agents with display voice terminals press this button to display agent, split/skill, VDN, or trunk group data similar to that reported by *CentreVu* CMS.

Figure A-3 shows a sample button layout for a *Callmaster*® voice terminal. Other buttons can be assigned to agent voice terminals, but most are not ACD-related. Some of these buttons are described in the following sections.

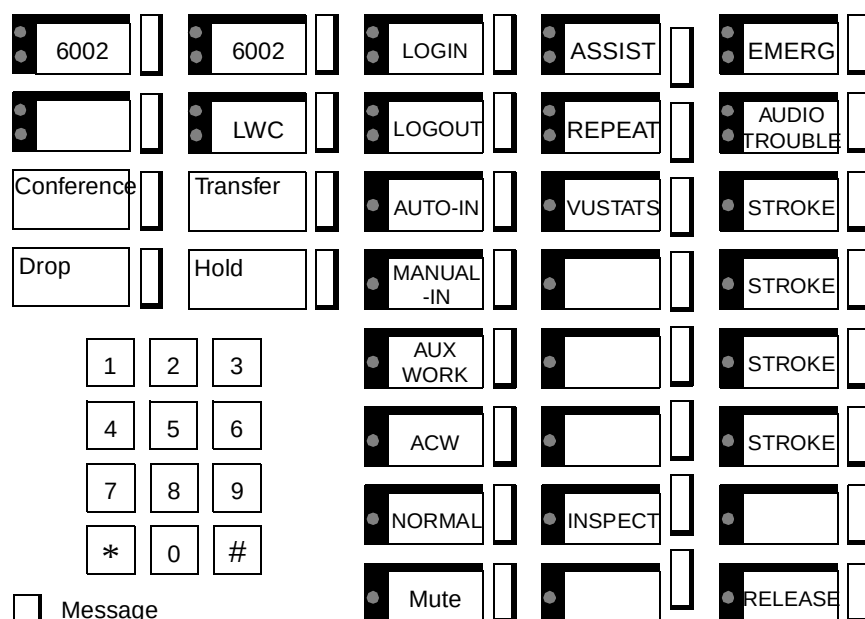


Figure A-3: Sample Button Layout for the *Callmaster* Voice Terminal

Incoming Call Displays for the ECS and Generic 3

Incoming call displays for the *DEFINITY* ECS and Generic 3 switches are similar to Generic 2 switches, with the following exceptions:

- Generic 3 switches and the *DEFINITY* ECS right-adjust the split, VDN, or trunk group name. Generic 2 switches left-adjust the split, VDN, or trunk group name.
- Generic 2 switches store and display as many as 30 characters for a split, VDN, or trunk group name. Generic 3 switches store and display as many as 15 characters. The *DEFINITY* ECS displays as many as 27 characters.

A typical city-of-origin display might look like the example shown below.

a= Detroit to Sales

Queue Status Displays for the ECS and Generic 3

Agents with display voice terminals see queue status displays that are similar to those for Generic 2 switches, with the following exceptions:

- Agents must press a voice terminal button to receive a queue status display.
- Queue status buttons are assigned to a particular split. The split name appears on the display with the queue status information when one of the buttons is pressed.
- The queue status information temporarily replaces (the information is displayed for approximately 5 seconds) the currently displayed information.
- Queue time is displayed in minutes and seconds (Generic 2 displays queue time in seconds).

A typical queue status display might look like the example shown below.

Sales Q_time 4:37 calls 16

Queue Status Lamps on Agent Voice Terminals for the ECS and Generic 3

The lamps associated with the queue status buttons provide the following information:

- **NQC**

The lamp associated with the Number of Queued Calls (NQC) button tells the agent that calls are in queue and when the number of calls in queue has met or exceeded the assigned queue threshold for the split. If no calls are in the split's queue, the status lamp associated with the button is dark. When one or more calls are in queue, the lamp lights steadily. When the number of calls in queue reaches the assigned queue threshold, the lamp flashes on and off.

- **OQT**

The lamp associated with the Oldest Queued Time (OQT) button tells the agent that calls are in queue and when the oldest call in queue has been waiting longer than the assigned wait time threshold (0 to 999 seconds) for the split. If no calls are in the split's queue, the status lamp is dark. When calls are in queue, the lamp lights steadily. When the assigned wait time threshold has been met or exceeded by the oldest call in queue, the lamp flashes on and off.

A flashing queue status lamp tells agents they need to handle calls more quickly. The thresholds that cause the lamps to flash and the voice terminal buttons are assigned through switch administration.

Auxiliary Queue Status Lamps for the ECS and Generic 3

An auxiliary queue status lamp indicates that either the Number of Queued Calls threshold or the Oldest Queued Time threshold has been reached. The lamp lights when the assigned threshold is met or exceeded. Unlike the lamps on a voice terminal, the auxiliary queue status lamp does not indicate when calls queue to the split.

Incoming Call Announcements for Agents on Generic 2

On Generic 2, if an ACD call is forwarded from another split, agents in the forwarded-to split can hear a short announcement describing the origin of a call. If a call is intraflowed from a local split, agents hear a **queue-of-origin announcement**. If a call is interflowed from a split on another switch, agents hear a **city-of-origin** announcement. To repeat the announcement, the agent can press the REPEAT button.

Announcements are assigned to the originally-called internal splits and trunk groups through switch administration. Announcements can also be assigned to incoming trunk groups. In this case, an agent may also hear a city-of-origin announcement for ACD calls dialed directly to the split.

Incoming Call Displays for Generic 2

On a Generic 2, agents with display voice terminals can receive queue-of-origin and city-of-origin **displays** instead of, or in addition to, announcements.

The word(s) that appear on the display must be assigned to the split or trunk group through switch administration.

A queue-of-origin display might look like this:

`a=Region2`

A city-of-origin display might look like this:

`a=Detroit to Sales`

The lower-case letter and equals sign in the first two character positions of the display identify the call appearance for which information is being displayed. The display shows `a=` for an incoming call on the first call appearance, `b=` for an incoming call on the second call appearance, and so on.

Queue Status Displays for Generic 2

For Generic 2, an agent with a display voice terminal can receive queue status displays simultaneously with incoming call displays. This information is available only while the agent is active on an ACD call. A queue status display gives an agent the following information:

- The current number of queued calls (from 0 to 999^{*}).
- The current number of seconds (from 001 to 999[†]) the oldest queued call has been waiting.

A combined incoming call and queue status display might look like the example shown where five calls are queued and the oldest call has been waiting nine seconds:

a=Region2	5 009

Display Buttons

The following voice terminal buttons control the information that appears on the display:

- **NORMAL**

Press this button to display information about the active call appearance. For Generic 2, pressing this button updates the queue status display.

- **INSPECT**

Press this button to display incoming call information (either an extension-in call or an intraflowed/ interflowed call) for a different call appearance.

Voice terminal display buttons are assigned through switch administration.

* If the number of queued calls exceeds 999, this portion of the display will show "****".

† If the oldest call has waited more than 999 seconds, this portion of the display will show "****".

Split Supervisor Voice Terminal Buttons

A split supervisor is normally assigned to each split. For the *DEFINITY* ECS and Generic 3 switches, the capabilities to monitor agent performance, add and remove agents, and perform other split-related activities must be assigned with separate switch administration procedures. For Generic 2 switches, the voice terminal assigned to the split supervisor can be used for these activities. Most of these capabilities become automatically available when the split supervisor extension is created.

The following voice terminal buttons are available only to the split supervisor's extension:

- **ADD AGENT** (Generic 2)

The split supervisor presses this button and dials an agent extension number to add the agent to the split. For the add to be successful, the extension must be unstaffed at the moment the extension is dialed.

- **DELETE AGENT** (Generic 2)

The split supervisor presses this button and dials an agent extension number to delete the agent from the split. For the delete to be successful, the extension must be unstaffed at the moment the extension is dialed.

- **INTRAFLOW ALL** (Generic 2)

The split supervisor presses this button to send all calls to the intraflow destination(s). The destinations may also include an interflow destination.

- **INTRAFLOW THRESHLD** (Generic 2)

The split supervisor presses this button to send calls to the intraflow destination(s) if the split queue threshold has been reached. The destinations may also include an interflow destination.

- **NIGHT SERVICE** (ECS, Generic 3)

The split supervisor presses this button to send all calls to night service. The Night Service may be Trunk Group Night Service or Split Night Service. Also, a separate button for each type of night service may be available.

- **RECORD ANNCT** (ECS, Generic 3)

The supervisor presses this button to either listen to or to record an announcement for the split.

- **SERVICE OBSERVE**

The supervisor presses this button and dials an agent extension number to listen to conversations on the voice terminal. The Service Observe feature permits the supervisor to check an agent's call-handling technique. An agent's voice terminal may also be assigned the SERVICE OBSERVE button so that the agent can listen to another agent's conversations. This capability is especially useful for agent training. Service observing can be set up for listening only or for both listening and talking.

The *DEFINITY* ECS and Generic 3 Version 3 and later switches offer the following enhancements to the Service Observing feature:

- For switches with EAS, a logical agent ID, which is associated with an agent, not the voice terminal the agent is currently using, can be service observed.
- For switches with Call Vectoring, VDNs can be service observed.
- Feature Access Codes which allow service observing from an external location or from a voice terminal that does not have feature buttons can be assigned through switch administration.

- **VERIFY ANNCT** (Generic 2)

The split supervisor presses this button to listen to the split's first announcement and to verify that it plays correctly and serves its purpose.

- **VUSTATS** (ECS, Generic 3)

For the *DEFINITY* ECS and Generic 3 Version 3 and later switches, split supervisors and agents with display voice terminals press this button to display agent, split/skill, VDN, or trunk group data similar to that reported by *CentreVu* CMS.

Figure A-4 shows an example of a button layout for a split supervisor's voice terminal.

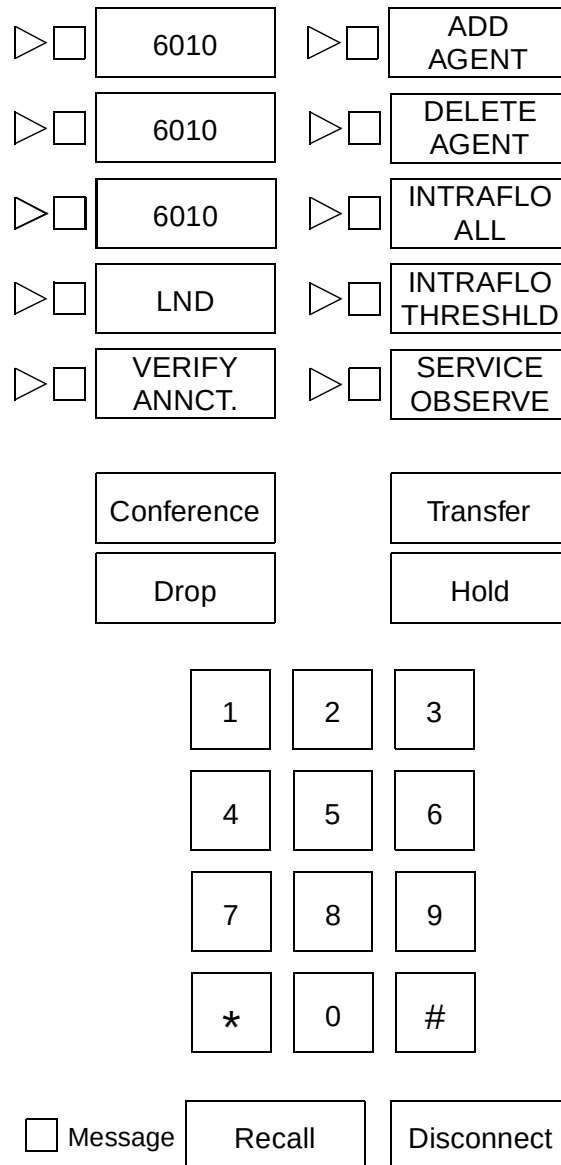


Figure A-4: Sample Button Layout for G2 Split Supervisor Without Agent Responsibilities

Assigning *CentreVu* CMS Measurement of the ACD

CentreVu CMS collects data on splits/skills, agents, extensions, trunks, trunk groups, VDNs, and vectors. However, for *CentreVu* CMS to collect data, the appropriate items (splits/skills, extensions, and so on) must be identified as **measured** on the *DEFINITY* ECS or switch. Measured means that, for any item, the ECS/switch will send CMS information about that item, and *CentreVu* CMS will collect data on that item. The *CentreVu* CMS ACD Status window (see Chapter 3, “Maintenance”) lists the total number of measured splits/skills, extensions (Agent Positions), trunks, and trunk groups established in an ACD.

Note

For the *DEFINITY* ECS and Generic 3 Version 2 and later switches, you can add, delete, or change measured trunks, trunk groups, agent extensions, agent login IDs, VDN extensions, splits, and skills without busying out the link to *CentreVu* CMS and losing *CentreVu* CMS data.

***CentreVu* CMS Measurement of the ECS, Generic 3 and Generic 2.2 ACD**

For the *DEFINITY* ECS and Generic 3 and Generic 2.2 switches, individual splits and trunk groups are assigned to *CentreVu* CMS measurement through switch administration. Extensions are measured by virtue of their assignment to measured splits. Trunks are measured by virtue of their assignment to measured trunk groups. The number of measured splits cannot be changed using the *CentreVu* CMS ACD Status screen. Measured splits need not be numbered sequentially. VDNs are measured individually. All vectors are measured.

***CentreVu* CMS Measurement of the Generic 2.1 ACD**

On Generic 2.1, each individual extension and trunk group must be assigned to *CentreVu* CMS measurement using switch procedures. Trunks are then automatically measured by virtue of their assignment to a measured trunk group. Split measurement is assigned in *CentreVu* CMS by entering a number of measured splits on the *CentreVu* CMS ACD Status screen. The number of splits *CentreVu* CMS can measure can be smaller than the number of splits assigned to the switch, but not greater. Measured splits must be numbered sequentially.

Switch Features That Affect *CentreVu* CMS Data

Hold, Conference, and Transfer

For the *DEFINITY* ECS and Generic 3 and Generic 2.2 switches, *CentreVu* CMS tracks any type of call an agent puts on hold by pressing the Hold button, dialing the hold access code, pressing the Conference or Transfer button, or flashing the switchhook. Information on all calls (split/skill ACD, direct agent ACD, and extension calls) and the time spent on hold is stored in agent database tables. Information on split/skill calls only and the time spent on hold is stored in split/skill tables.

For the Generic 2.1 switch, *CentreVu* CMS tracks split ACD calls put on hold by pressing the Hold button or by dialing the hard hold access code. *CentreVu* CMS stores information (in agent database tables) about split ACD calls put on hold using either of these methods and the time spent on hold. *CentreVu* CMS also tracks transfers to a measured split.

For Generic 2.1 switches, if a call is put on hold using a method other than those described above, *CentreVu* CMS tracks the time an agent has an ACD call on hold as ACD talk time. Extension calls made or received while a call is on hold and the time spent on hold are not tracked for this switch release.

Multiple Call Handling

The *DEFINITY* ECS and Generic 3 Version 4 switch have options to the Multiple Call Handling feature that can force agents to receive one or more ACD calls with other ACD calls or extension (non-ACD) calls on hold or active. For these forced options, talk time (and not ringing time) accumulates until the agent puts the current call on hold or releases it.

For the *DEFINITY* ECS, Generic 2, and Generic 3 Version 3 and later switches with Multiple Call Handling, an agent can put a call on hold and press the MANUAL-IN or AUTO-IN button to receive another ACD call. When multiple calls are on hold at the same time, hold time accumulates for each call on hold, and the total hold time can exceed clock time. For example, if two calls are on hold for 5 minutes each, 10 minutes of hold time accumulates.

Call Pickup

When an agent uses the Call Pickup feature to pick up an ACD call that rings at another agent's extension, *CentreVu* CMS tracks the call as an AUX-IN call for the agent picking up the call. The split/skill of the agent originally called is credited with an outflow call, even if the agent who

picked up the call is in the same split/skill. If an agent is logged into more than one split/skill, the call is counted for the split/skill the agent has been logged into the longest.

Thus, when Call Pickup is used, *CentreVu* CMS does **not** count the call as an ACD call, even though the call queued to a split/skill and was answered. Various other types of data associated with ACD calls (for example, "Percent Answered Within Service Level" and "Average Speed of Answer") will also not include data on calls answered using the Call Pickup feature. Because the split/skill of the agent originally called is credited with an outflow call, the call counts *against* the "Percent Answered Within Service Level" for that split/skill.

Intraflow and Interflow

When a call is intraflowed or interflowed from a split/skill, *CentreVu* CMS counts the call as an outflow call for the split/skill. If a call is intraflowed into a split/skill, *CentreVu* CMS counts the call as an inflow call for the split/skill. *CentreVu* CMS counts interflowed calls as ordinary incoming calls for the split/skill. However, because calls can be intraflowed/interflowed to destinations that are not splits/skills or are not measured by *CentreVu* CMS, an outflow call from a split/skill will not always show a corresponding inflow call for another split/skill. Conversely, because calls can be intraflowed/interflowed into a split/skill from originating locations that are not measured by *CentreVu* CMS, an inflow call to a split/skill may not show a corresponding outflow from another split/skill.

If an intraflowed/interflowed call connects to an agent in the destination split/skill, that call is counted as an ACD call for the split/skill.

On the *DEFINITY* ECS and Generic 3 switches, a dummy split/skill may be established which intraflows calls to another split/skill. For *CentreVu* CMS to count outflow calls for dummy splits/skills, intraflow should be established using the Call Forwarding feature. If Call Coverage is used to intraflow calls, at least one agent must log into the dummy split/skill and go into ACW, and the call must queue to the dummy split/skill for at least one ring cycle for an outflow call to be counted.

Note

For switches with the Call Vectoring feature, intraflow and interflow work differently, and *CentreVu* CMS data related to intraflow and interflow are recorded differently.

Redirection On No Answer

For the *DEFINITY* ECS, and Generic 3 Version 2 and later switches, when a ringing call times out and is requeued to the same split/skill by the Redirection On No Answer feature, *CentreVu* CMS counts an outflow and an inflow for the split/skill. That is, the redirected call appears as two offered calls to the split/skill. For the *DEFINITY* ECS, if the call redirects from ringing to a VDN, there is outflow from the initial VDN and from the split/skill. If the call was in another VDN prior to redirection to another VDN, then there is inflow to that VDN. Also, NOANSREDIR is incremented for the split/skill and the VDN.

For Release 3 Version 2 and later of CMS, the database item NOANSREDIR is also incremented for split/skill and for VDN, if the call is in a VDN. If a split/skill is set up so that split/skill calls do not redirect back to the split/skill except by way of the Redirection On No Answer feature, the unique calls offered to the split/skill can be calculated by subtracting the value of NOANSREDIR from CALLSOFFERED.

If a call redirects from ringing to a VDN (*DEFINITY* ECS), there is outflow from the split/skill and, if the call was in another VDN, there also is inflow to the new VDN and outflow from the initial VDN. The NOANSREDIR is incremented for split/skill and VDN.

Phantom Abandon Call Timer

CentreVu CMS R3V4 and later switches can collect information about phantom abandon calls. When this capability is enabled, calls with a talk time (duration) shorter than the administered value (1 - 10 seconds) are counted as phantom abandon calls. Setting the timer to zero disables it. *CentreVu* CMS uses the PHANTOMABNS database item to store the number of phantom abandon calls.

This capability is important in areas where the public network switches do not provide disconnect supervision. Without this capability, short-duration calls that queue to a split/skill and are answered by an ACD agent or other answering position are counted as ACD calls, even if the calling party hangs up before the call is answered. This type of call is called a phantom or ghost call.

ACD Engineering Guidelines

Use this section to determine how many agents and trunks will be required for an ACD being monitored by the *CentreVu* CMS software. Remember, do not exceed the maximum values of the ACD parameters supported by *CentreVu* CMS which are stated in Chapter 1, "Introduction."

Note

Be sure to include your future growth expectations when determining the requirements for the ACD. If a growth factor is not included and you decide later to add agents, trunks, or splits/skills to the system, the hard disk system on the computer may not be able to accommodate the additional agents, trunks, splits/skills, etc. The *CentreVu* CMS configurator selects the computer based on maximum growth projections.

When configuring a new ACD, Table A-1 through Table A-11 should be used to determine how many agents and trunks will be required to handle a given rate of incoming calls. Each split/skill should be designed individually for the number of agents and trunks required, subject to any pertinent switch limitations. Take the value of a lost or blocked call into account when designing the ACD.

Interpolation

Interpolation is a method of estimating tabular values of a function between two known values of that function. When using Table A-1 through Table A-11 to determine the number of agents required and Table A-12 to determine the number of trunks required for a given ACD, you may find that the expected number of call arrivals or the carried load lies somewhere between two entries in the tables. Therefore, the number of agents or trunks required will also lie somewhere between the two entries.

If this is the case, the number of agents required or number of trunks needed can be only found by interpolation. Use the following equation to interpolate between tabular values:

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

Where:

- x is the independent variable.
- y is the dependent or functional variable.
- x_0 is the tabular value of the independent variable that immediately precedes x .
- x_1 is the tabular value of the independent variable that immediately succeeds x .
- y_0 is the tabular value of the dependent variable that immediately precedes y .
- y_1 is the tabular value of the dependent variable that immediately succeeds y .

Agent Engineering Guidelines

Table A-1 through Table A-11 (later in this section) list the number of ACD agents required to handle a given incoming call load. The top rows on each of these tables show the possible delay times for a given incoming call load (*calls per hour* or *busy hour calls*), and the left-most column lists the agents required to handle the incoming call load within the given delay time. Each table represents a different average service time (talk time + ACW time) for calls.

Note

The entries in Table A-1 through Table A-11 are in *busy-hour calls*, which are the number of calls received by the ACD during peak levels of caller activity.

The double lines drawn across Table A-1 through Table A-5 show where the maximum number of *busy-hour calls* handled by CentreVu CMS has been exceeded.

To determine how many agents will be required to handle the incoming call load of an ACD (or split), use Table A-1 through Table A-11 as follows:

- Estimate the average service time (the time an agent spends processing a call, or talking to a caller). Table A-1 through Table A-11 contain the data that describe the following service times: 7, 15, 30, 45, 60, 90, 120, 180, 240, 300, and 600 seconds. Choose the appropriate table that represents the service time that you want or have for the ACD (or split).
- At the top of the table, choose the closest possible delay time in seconds. A *delay* is defined as the elapsed time from when a call is queued to the ACD split until it is answered by an agent. The delay criterion states that 90 percent of the incoming calls will be answered by the agents before the specified delay has occurred.
- *Busy-hour calls* denotes the number of calls received by the ACD (or split) during peak levels of caller activity. Based on previous experience or on suspected levels of caller activity, choose the number of *busy-hour calls*.
- After choosing the appropriate table and delay column, find the entry in the table for *busy-hour calls* that is greater than or equal to the number of *busy-hour calls* chosen.
- The number of agent positions required is then found in the left-most column of the respective table.
- You can interpolate between the tables (for different call service times), between the columns (for different delay times), and between the rows (for different number of calls per hour).

Table A-1 through Table A-11 were prepared by using a range of 1 to 1000 agents. For small service times, this yields high traffic rates, even for a small number of agents.

Example 1:

The classified ads department of a major newspaper receives 400 calls per hour. The average time an agent spends on each call is 3 minutes. If most of the calls should be answered in less than 30 seconds, how many agents should be employed in this department?

Table A-8 provides data for 180-second (3-minute) call durations. Under the column heading "30" seconds (delay time), find the first entry greater than 400 calls per hour (403). Follow this row left to the "agents" column and find 25 agents. The number of agents required to answer 400 calls (of 3-minute duration) per hour with 90 percent of the callers waiting less than 30 seconds is 25 agents.

For this example, consider the efficiency of the agents and the sensitivity of the parameters to changes in the call arrival rate. The efficiency of the agents is the ratio of the number of agent hours spent on the phone to the number of agent hours in an hour. The number of agent hours spent on the phone is 400 calls per hour times .05 hours (3 minutes) equals 20 agent hours. Therefore, the efficiency is $20 / 25$ (25 agents for 1 hour) equals .80 or 80 percent.

Suppose the calls per hour increased to 425 calls per hour. The efficiency is now $425 \times 0.05 / 25 = 0.85$ or 85 percent. The efficiency has increased, but this added efficiency is not free of charge. The delay criterion has changed significantly from about 9.9 percent of all calls taking longer than 30 seconds for an agent to answer to about 14.7 percent (403 calls per hour yield 10.0 percent, but 400 calls per hour were stated). To get the delay criterion back to 9.9 percent would require a delay time of about 58.5 seconds. Another measure of what is happening with the queue is the *average* time spent waiting for service in the queue. With 400 calls per hour, the mean time spent in the queue is 7.53 seconds. With 425 calls per hour, the mean time in the queue is 16.14 seconds. The point of this example is to emphasize the sensitivity of the time in the queue to the arrival rate. In other words, increasing the agent efficiency from 80 percent to 85 percent nearly doubles the various measures of queuing time.

Note

For Examples 2 and 3, the ?s in the tables represent the unknown values you are looking for. The *italicized numbers* in the tables represent numbers that are not included in Table A-1 through Table A-11.

Example 2:

The reservations department for a hotel chain knows that the average call duration is 5 minutes and that most of the potential customers will not wait more than 1 minute for their call to be answered. How many agents are required to handle 5000 calls per hour? Under the 60-second column of Table A-10, you will find the following information:

agents	60
400	4697
?	5000
450	5295

To find the number of agents needed to handle 5000 calls per hour, interpolate between the number of agents and calls per hour.

If y = number of agents needed, then:

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 400 + \left[(450 - 400) \frac{5000 - 4697}{5295 - 4697} \right]$$

$$y = 400 + \left[50 \frac{303}{598} \right]$$

$$y = 425.335$$

Therefore, 426 agents are needed to support the reservations department.

Example 3:

The manager of a split in an ACD knows that calls average 75 seconds and that the split receives 1500 calls per hour. The manager wants most of the calls to be answered in less than 40 seconds. How many agents are required?

To answer this question, you must interpolate between delay time and calls per hour to obtain the number of calls per hour for a 40-second delay time. Under the 30- and 45-second columns of Table A-5 and Table A-6, you find:

60 Seconds Average Service Time				75 Seconds	90 Seconds Average Service Time			
delay times					delay times			
agents	30	40	45		agents	30	40	45
25	1322	?	1364		40	1435	?	1471
?		1500			?		1500	
30	1616	?	1661		45	1630	?	1669

Interpolate between delay time and calls per hour in both tables to obtain calls per hour for a 40-second delay time.

If y = number of calls per hour, then:

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 1322 + \left[(1364 - 1322) \frac{40 - 30}{45 - 30} \right]$$

$$y = 1322 + \left[42 \frac{10}{15} \right]$$

$$y = 1350$$

Now you can fill in the first blank: 1350 calls per hour under the 40-second delay time heading. Repeat the interpolation process three more times to come up with the figures 1646, 1459, and 1656.

60 Seconds Average Service Time				75 Seconds	90 Seconds Average Service Time			
	delay times					delay times		
agents	30	40	45		agents	30	40	45
25	1322	1350	1364		40	1435	1459	1471
?		1500			?		1500	
30	1616	1646	1661		45	1630	1656	1669

Next, interpolate between number of agents and the calls per minute (in both the 60-second and 90-second tables) to obtain the number of agents needed when 1500 calls per minute are expected, as follows:

y = number of agents needed when a 60-second service time is desirable.

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 25 + \left[(30 - 25) \frac{1500 - 1350}{1646 - 1350} \right]$$

$$y = 25 + \left[5 \frac{150}{296} \right]$$

$$y = 27.5$$

Now we know that 27.5 agents would be needed when a 60-second service time is desirable. Repeat the above interpolation process once (for a 90-second service time) to come up with the result:

$$y \text{ (number of agents)} = 41.0$$

60 Seconds Average Service Time				75 Seconds	90 Seconds Average Service Time			
	delay times					delay times		
agents	30	40	45		agents	30	40	45
25	1322	1350	1364		40	1435	1459	1471
		1500			41.0		1500	
30	1616	1646	1661		45	1630	1656	1669

Finally, interpolate between agents and service times to determine the number of agents needed when a 75-second service time is desirable.

y = number of agents needed when a 75-second service time is desirable.

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 27.5 + \left[(41 - 27.5) \frac{75 - 60}{90 - 60} \right]$$

$$y = 27.5 + \left[13.5 \frac{15}{30} \right]$$

$$y = 34.25(\text{or } 35)$$

From exact calculations, 34 agents imply that 12.2 percent of the incoming calls will wait more than 40 seconds. Or, with 35 agents, 5.56 percent will wait more than 40 seconds. If it is desirable that anything above, say, 10 percent is undesirable, a 35th agent must be acquired.

Table A-1: 7 Seconds Average Service Time

agents	delay times								
	11	15	22	30	45	60	90	120	180
1	154	195	253	302	359	392	429	449	470
2	575	648	736	799	865	902	942	962	984
3	1044	1135	1237	1305	1376	1415	1455	1476	1498
4	1531	1633	1743	1815	1888	1928	1969	1990	2012
5	2025	2136	2251	2326	2401	2441	2483	2504	2526
6	2525	2641	2761	2838	2914	2955	2997	3018	3040
7	3027	3149	3272	3350	3428	3469	3511	3533	3555
8	3532	3657	3783	3863	3941	3983	4025	4047	4069
9	4038	4167	4295	4376	4455	4496	4539	4561	4583
10	4545	4677	4808	4889	4969	5010	5053	5075	5097
12	5562	5699	5833	5916	5997	6039	6082	6104	6126
14	6581	6722	6859	6943	7025	7067	7110	7132	7155
16	7602	7746	7885	7971	8053	8095	8139	8161	8183
18	8625	8771	8912	8998	9081	9123	9167	9189	9212
20	9648	9797	9939	10026	10109	10152	10195	10218	10240
25	12208	12362	12508	12596	12680	12723	12767	12789	12812
30	14772	14929	15077	15166	15251	15294	15338	15360	15383
35	17337	17497	17647	17736	17822	17865	17909	17932	17954
40	19903	20065	20217	20307	20393	20436	20481	20503	20526
45	22470	22634	22787	22878	22964	23008	23052	23074	23097
50	25037	25204	25357	25449	25535	25579	25623	25646	25669
60	30174	30343	30499	30591	30677	30721	30766	30789	30811
70	35312	35483	35640	35733	35820	35864	35909	35932	35954
80	40451	40624	40782	40875	40963	41007	41052	41074	41097
90	45591	45765	45924	46018	46105	46150	46195	46217	46240
100	50731	50906	51066	51160	51248	51292	51337	51360	51383
125	63582	63760	63922	64016	64105	64149	64194	64217	64240
150	76435	76615	76778	76873	76961	77006	77051	77074	77097
175	89289	89471	89634	89730	89818	89863	89909	89931	89954
200	102144	102326	102491	102586	102675	102720	102766	102788	102811
225	114999	115182	115347	115443	115532	115577	115623	115646	115668
250	127854	128038	128204	128300	128389	128435	128480	128503	128526
275	140710	140895	141061	141157	141246	141292	141337	141360	141383
300	153565	153751	153917	154014	154104	154149	154194	154217	154240
350	179277	179464	179631	179728	179818	179863	179908	179931	179954
400	204990	205177	205345	205442	205532	205577	205623	205645	205668
450	230702	230891	231059	231156	231246	231291	231337	231360	231383
500	256415	256604	256773	256870	256960	257006	257051	257074	257097
550	282128	282318	282487	282584	282674	282720	282765	282788	282811
600	307842	308032	308201	308298	308389	308434	308480	308503	308525
650	333555	333745	333915	334013	334103	334148	334194	334217	334240
700	359268	359459	359629	359727	359817	359863	359908	359931	359954
750	384982	385173	385343	385441	385531	385577	385623	385645	385668
800	410696	410887	411057	411155	411246	411291	411337	411360	411383
850	436409	436601	436771	436869	436960	437005	437051	437074	437097
900	462123	462315	462485	462583	462674	462720	462765	462788	462811
950	487837	488029	488199	488298	488388	488434	488480	488503	488525
1000	513551	513743	513914	514012	514103	514148	514194	514217	514240

Table A-2: 15 Seconds Average Service Time

agents	delay times								
	11	15	22	30	45	60	90	120	180
1	44	52	68	86	115	136	163	180	198
2	196	222	261	295	339	367	399	417	437
3	386	425	478	521	572	603	637	656	676
4	592	640	703	752	808	840	876	896	916
5	806	862	933	986	1045	1078	1115	1135	1156
6	1025	1089	1165	1221	1282	1317	1355	1375	1396
7	1248	1317	1399	1457	1521	1556	1594	1615	1636
8	1474	1548	1634	1694	1759	1795	1834	1854	1875
9	1702	1780	1869	1932	1998	2035	2074	2094	2115
10	1931	2013	2106	2170	2237	2274	2313	2334	2355
12	2393	2482	2580	2646	2715	2753	2793	2814	2835
14	2858	2953	3055	3124	3194	3232	3273	3294	3315
16	3326	3425	3531	3601	3673	3712	3752	3773	3795
18	3796	3899	4008	4079	4152	4191	4232	4253	4275
20	4266	4373	4485	4558	4631	4671	4712	4733	4755
25	5448	5562	5679	5754	5830	5870	5911	5933	5955
30	6634	6753	6875	6952	7029	7069	7111	7133	7155
35	7823	7947	8071	8150	8228	8269	8311	8333	8355
40	9013	9141	9268	9349	9427	9468	9511	9533	9555
45	10205	10336	10466	10547	10626	10668	10711	10732	10755
50	11399	11532	11664	11746	11826	11868	11910	11932	11955
60	13787	13926	14061	14144	14225	14267	14310	14332	14355
70	16178	16321	16458	16543	16624	16667	16710	16732	16755
80	18571	18716	18856	18942	19024	19066	19110	19132	19154
90	20965	21113	21254	21341	21423	21466	21510	21532	21554
100	23359	23510	23653	23740	23823	23866	23910	23932	23954
125	29349	29504	29650	29738	29822	29866	29910	29932	29954
150	35341	35499	35648	35737	35822	35865	35909	35932	35954
175	41334	41496	41646	41736	41821	41865	41909	41932	41954
200	47329	47493	47645	47735	47821	47865	47909	47932	47954
225	53325	53490	53644	53735	53821	53865	53909	53932	53954
250	59321	59488	59643	59734	59821	59865	59909	59932	59954
275	65318	65487	65642	65734	65820	65864	65909	65932	65954
300	71315	71485	71641	71733	71820	71864	71909	71932	71954
350	83310	83482	83640	83733	83820	83864	83909	83931	83954
400	95307	95480	95639	95732	95820	95864	95909	95931	95954
450	107303	107478	107638	107732	107819	107864	107909	107931	107954
500	119301	119477	119637	119731	119819	119864	119909	119931	119954
550	131298	131476	131636	131731	131819	131864	131909	131931	131954
600	143296	143474	143636	143731	143819	143864	143909	143931	143954
650	155294	155473	155635	155730	155819	155864	155909	155931	155954
700	167293	167473	167635	167730	167819	167863	167909	167931	167954
750	179291	179472	179635	179730	179819	179863	179909	179931	179954
800	191290	191471	191634	191730	191818	191863	191909	191931	191954
850	203289	203470	203634	203729	203818	203863	203909	203931	203954
900	215287	215470	215634	215729	215818	215863	215909	215931	215954
950	227286	227469	227633	227729	227818	227863	227909	227931	227954
1000	239285	239469	239633	239729	239818	239863	239908	239931	239954

Table A-3: 30 Seconds Average Service Time

agents	delay times								
	11	15	22	30	45	60	90	120	180
1	16	18	22	26	35	43	57	68	82
2	79	86	98	111	132	147	169	183	200
3	161	173	193	212	240	260	286	301	319
4	252	270	296	320	353	376	404	420	438
5	349	371	403	431	468	493	522	539	558
6	450	476	513	544	585	611	641	659	677
7	554	583	624	659	702	729	760	778	797
8	660	692	737	774	819	847	880	898	917
9	767	803	851	890	937	966	999	1017	1037
10	875	914	965	1007	1055	1085	1118	1137	1157
12	1096	1140	1196	1241	1292	1323	1358	1376	1396
14	1319	1368	1429	1476	1530	1562	1597	1616	1636
16	1544	1597	1663	1712	1768	1801	1836	1856	1876
18	1772	1829	1898	1949	2007	2040	2076	2096	2116
20	2001	2061	2133	2186	2245	2279	2316	2335	2356
25	2577	2645	2724	2781	2843	2877	2915	2935	2956
30	3159	3232	3317	3377	3440	3476	3514	3535	3556
35	3743	3822	3911	3973	4039	4075	4114	4134	4155
40	4330	4414	4507	4571	4637	4674	4714	4734	4755
45	4919	5006	5103	5168	5236	5274	5313	5334	5355
50	5509	5600	5699	5766	5835	5873	5913	5934	5955
60	6692	6789	6894	6963	7034	7072	7113	7134	7155
70	7879	7981	8089	8160	8233	8271	8312	8333	8355
80	9067	9174	9285	9358	9432	9471	9512	9533	9555
90	10257	10368	10482	10556	10631	10670	10712	10733	10755
100	11449	11563	11680	11755	11830	11870	11912	11933	11955
125	14432	14552	14674	14752	14829	14869	14911	14933	14955
150	17419	17545	17670	17750	17828	17869	17911	17933	17955
175	20408	20538	20667	20748	20827	20868	20911	20933	20955
200	23399	23533	23665	23746	23826	23868	23911	23932	23955
225	26392	26529	26662	26745	26826	26867	26910	26932	26955
250	29386	29525	29661	29744	29825	29867	29910	29932	29955
275	32380	32522	32659	32743	32825	32867	32910	32932	32955
300	35375	35519	35658	35742	35824	35867	35910	35932	35954
350	41367	41514	41655	41741	41824	41866	41910	41932	41954
400	47360	47510	47653	47740	47823	47866	47910	47932	47954
450	53354	53507	53652	53739	53823	53866	53910	53932	53954
500	59349	59504	59650	59738	59822	59866	59910	59932	59954
550	65345	65502	65649	65738	65822	65865	65910	65932	65954
600	71341	71500	71648	71737	71822	71865	71909	71932	71954
650	77338	77498	77647	77737	77822	77865	77909	77932	77954
700	83335	83496	83646	83736	83821	83865	83909	83932	83954
750	89332	89495	89646	89736	89821	89865	89909	89932	89954
800	95330	95493	95645	95735	95821	95865	95909	95932	95954
850	101327	101492	101644	101735	101821	101865	101909	101932	101954
900	107325	107491	107644	107735	107821	107865	107909	107932	107954
950	113323	113490	113643	113735	113821	113865	113909	113932	113954
1000	119322	119489	119643	119734	119821	119865	119909	119932	119954

Table A-4: 45 Seconds Average Service Time

agents	delay times								
	11	15	22	30	45	60	90	120	180
1	10	11	12	14	17	21	29	35	45
2	48	52	57	63	74	83	98	109	122
3	99	105	115	125	142	155	174	186	201
4	157	165	179	193	213	229	251	264	280
5	218	229	246	263	287	305	329	343	359
6	282	296	316	335	363	382	407	422	439
7	348	364	387	409	439	460	486	501	519
8	416	434	460	484	516	538	565	581	598
9	485	504	533	559	593	616	644	660	678
10	555	576	607	635	671	695	723	740	758
12	697	722	758	788	827	852	882	899	918
14	841	870	909	943	984	1010	1041	1059	1077
16	988	1019	1062	1098	1142	1169	1200	1218	1237
18	1135	1170	1216	1254	1300	1327	1360	1378	1397
20	1284	1322	1371	1410	1458	1486	1519	1537	1557
25	1661	1704	1760	1803	1854	1884	1918	1937	1957
30	2042	2090	2151	2198	2251	2282	2317	2336	2356
35	2426	2479	2544	2594	2649	2681	2717	2736	2756
40	2812	2869	2938	2990	3047	3080	3116	3136	3156
45	3199	3260	3333	3387	3445	3479	3516	3535	3556
50	3589	3653	3729	3784	3844	3878	3915	3935	3956
60	4370	4440	4522	4580	4642	4677	4715	4735	4756
70	5154	5230	5316	5376	5440	5476	5514	5535	5556
80	5941	6021	6111	6173	6239	6275	6314	6334	6355
90	6730	6814	6907	6971	7038	7074	7114	7134	7155
100	7520	7607	7703	7769	7837	7874	7913	7934	7955
125	9499	9594	9696	9765	9835	9873	9913	9934	9955
150	11483	11584	11691	11761	11833	11872	11912	11933	11955
175	13470	13576	13686	13759	13832	13871	13912	13933	13955
200	15459	15569	15683	15757	15831	15870	15912	15933	15955
225	17449	17563	17680	17755	17830	17870	17912	17933	17955
250	19441	19558	19677	19754	19829	19870	19911	19933	19955
275	21434	21554	21675	21752	21829	21869	21911	21933	21955
300	23428	23550	23673	23751	23828	23869	23911	23933	23955
350	27417	27543	27670	27749	27827	27868	27911	27933	27955
400	31408	31538	31667	31748	31827	31868	31911	31933	31955
450	35400	35533	35665	35747	35826	35868	35911	35932	35955
500	39393	39530	39663	39745	39826	39867	39910	39932	39955
550	43387	43526	43661	43744	43825	43867	43910	43932	43955
600	47382	47523	47660	47744	47825	47867	47910	47932	47955
650	51378	51521	51658	51743	51824	51867	51910	51932	51955
700	55374	55518	55657	55742	55824	55867	55910	55932	55954
750	59370	59516	59656	59742	59824	59866	59910	59932	59954
800	63366	63514	63655	63741	63824	63866	63910	63932	63954
850	67363	67512	67654	67741	67823	67866	67910	67932	67954
900	71360	71511	71653	71740	71823	71866	71910	71932	71954
950	75358	75509	75653	75740	75823	75866	75910	75932	75954
1000	79355	79508	79652	79739	79823	79866	79910	79932	79954

Table A-5: 60 Seconds Average Service Time

agents	delay times								
	11	15	22	30	45	60	90	120	180
1	7	7	8	9	11	13	17	22	29
2	35	36	40	43	50	56	66	74	85
3	72	75	81	87	97	106	120	130	143
4	113	118	126	135	149	160	177	188	202
5	158	164	175	186	202	216	234	246	261
6	204	212	225	238	257	272	292	305	321
7	253	262	277	292	313	329	351	364	380
8	302	313	330	346	370	387	410	424	440
9	352	365	383	401	427	445	469	483	500
10	403	417	438	457	484	503	528	542	559
12	508	524	548	570	600	620	646	662	679
14	614	632	659	684	716	738	765	781	799
16	721	742	772	799	833	856	884	900	918
18	830	853	886	914	951	975	1003	1020	1038
20	940	965	1000	1030	1069	1093	1123	1139	1158
25	1218	1248	1289	1322	1364	1390	1421	1439	1457
30	1500	1534	1579	1616	1661	1688	1720	1738	1757
35	1784	1822	1872	1911	1958	1987	2019	2038	2057
40	2071	2112	2165	2207	2256	2285	2319	2337	2357
45	2358	2403	2459	2503	2554	2584	2618	2637	2657
50	2648	2695	2754	2800	2852	2883	2918	2937	2956
60	3229	3281	3346	3395	3450	3481	3517	3536	3556
70	3813	3870	3939	3990	4047	4080	4116	4136	4156
80	4399	4460	4534	4587	4646	4679	4716	4735	4756
90	4987	5052	5129	5184	5244	5278	5315	5335	5356
100	5576	5645	5725	5781	5843	5877	5915	5935	5956
125	7054	7130	7216	7276	7340	7376	7414	7435	7456
150	8536	8618	8709	8772	8838	8875	8914	8934	8955
175	10021	10108	10204	10269	10337	10374	10413	10434	10455
200	11509	11600	11700	11767	11836	11873	11913	11934	11955
225	12998	13094	13196	13264	13335	13373	13413	13434	13455
250	14489	14588	14693	14763	14834	14872	14913	14934	14955
275	15980	16082	16190	16261	16333	16372	16412	16433	16455
300	17473	17578	17688	17760	17832	17871	17912	17933	17955
350	20460	20570	20683	20757	20831	20871	20912	20933	20955
400	23450	23563	23680	23755	23830	23870	23912	23933	23955
450	26440	26558	26677	26754	26829	26870	26911	26933	26955
500	29432	29553	29675	29752	29829	29869	29911	29933	29955
550	32426	32549	32673	32751	32828	32869	32911	32933	32955
600	35419	35545	35671	35750	35828	35869	35911	35933	35955
650	38414	38542	38669	38749	38827	38868	38911	38933	38955
700	41409	41539	41667	41748	41827	41868	41911	41933	41955
750	44404	44536	44666	44747	44826	44868	44911	44932	44955
800	47400	47534	47665	47747	47826	47868	47911	47932	47955
850	50396	50531	50664	50746	50826	50868	50910	50932	50955
900	53393	53529	53663	53745	53826	53867	53910	53932	53955
950	56389	56527	56662	56745	56825	56867	56910	56932	56955
1000	59386	59526	59661	59744	59825	59867	59910	59932	59955

Table A-6: 90 Seconds Average Service Time

agents	delay times								
	15	22	30	45	60	90	120	180	240
1	5	5	5	6	7	9	11	14	18
2	23	24	26	29	32	37	42	49	54
3	47	50	53	58	63	71	77	87	93
4	75	78	83	90	96	107	115	125	132
5	104	109	115	124	131	144	153	164	171
6	135	141	148	159	168	181	191	204	211
7	167	174	182	194	205	220	230	243	251
8	199	208	217	231	242	258	269	282	290
9	233	242	252	268	280	297	308	322	330
10	267	277	288	305	318	336	347	362	370
12	336	348	361	380	394	414	426	441	450
14	406	421	435	456	471	492	505	521	529
16	477	494	510	532	549	571	584	600	609
18	549	568	585	610	627	650	664	680	689
20	622	642	661	687	705	729	743	760	769
25	807	831	852	882	902	927	942	959	968
30	994	1021	1045	1077	1099	1126	1141	1159	1168
35	1182	1213	1239	1274	1297	1324	1341	1358	1368
40	1373	1406	1435	1471	1495	1524	1540	1558	1568
45	1564	1600	1630	1669	1693	1723	1740	1758	1768
50	1756	1794	1826	1867	1892	1922	1939	1958	1968
60	2142	2185	2220	2263	2290	2321	2338	2357	2367
70	2530	2577	2615	2660	2688	2720	2738	2757	2767
80	2920	2971	3011	3058	3087	3119	3138	3157	3167
90	3311	3365	3407	3456	3485	3519	3537	3557	3567
100	3703	3760	3804	3854	3884	3918	3937	3957	3967
125	4687	4750	4797	4851	4882	4917	4936	4956	4967
150	5673	5742	5792	5848	5881	5917	5936	5956	5967
175	6662	6735	6788	6846	6879	6916	6936	6956	6967
200	7653	7729	7784	7844	7878	7915	7935	7956	7967
225	8645	8725	8782	8843	8878	8915	8935	8956	8967
250	9638	9721	9779	9842	9877	9915	9935	9956	9966
275	10631	10717	10777	10841	10876	10914	10935	10956	10966
300	11626	11714	11775	11840	11876	11914	11934	11956	11966
350	13616	13708	13772	13838	13875	13914	13934	13955	13966
400	15608	15704	15769	15837	15874	15913	15934	15955	15966
450	17601	17700	17767	17836	17873	17913	17934	17955	17966
500	19594	19697	19765	19835	19873	19913	19934	19955	19966
550	21589	21694	21763	21834	21872	21913	21934	21955	21966
600	23584	23691	23762	23833	23872	23912	23933	23955	23966
650	25580	25689	25760	25833	25871	25912	25933	25955	25966
700	27576	27687	27759	27832	27871	27912	27933	27955	27966
750	29573	29685	29758	29832	29871	29912	29933	29955	29966
800	31569	31683	31757	31831	31871	31912	31933	31955	31966
850	33566	33682	33756	33831	33870	33912	33933	33955	33966
900	35563	35680	35755	35830	35870	35912	35933	35955	35966
950	37561	37679	37755	37830	37870	37912	37933	37955	37966
1000	39559	39678	39754	39830	39870	39911	39933	39955	39966

Table A-7: 120 Seconds Average Service Time

agents	delay times								
	15	22	30	45	60	90	120	180	240
1	3	4	4	4	5	6	7	9	11
2	17	17	18	20	22	25	28	33	37
3	34	36	37	40	43	49	53	60	65
4	54	57	59	63	67	74	80	88	94
5	76	79	82	88	93	101	108	117	123
6	99	102	106	113	119	129	136	146	153
7	122	126	131	139	146	157	165	175	182
8	146	151	156	165	173	185	193	205	212
9	170	176	182	192	201	213	223	234	241
10	195	202	209	220	229	242	252	264	271
12	246	254	262	275	285	300	310	323	331
14	298	307	316	331	342	358	369	383	390
16	350	361	371	387	399	417	428	442	450
18	404	415	427	444	457	475	487	502	510
20	457	470	483	501	515	534	547	561	570
25	594	609	624	646	661	682	695	711	719
30	732	750	767	791	808	830	844	860	869
35	872	892	911	937	956	979	993	1010	1019
40	1013	1035	1056	1084	1103	1128	1143	1159	1169
45	1155	1179	1201	1231	1252	1277	1292	1309	1318
50	1297	1324	1347	1379	1400	1426	1442	1459	1468
60	1584	1614	1641	1675	1697	1725	1741	1758	1768
70	1873	1906	1935	1972	1995	2024	2040	2058	2068
80	2163	2199	2230	2269	2293	2323	2340	2358	2368
90	2454	2493	2526	2566	2592	2622	2639	2658	2668
100	2746	2788	2822	2864	2891	2921	2939	2958	2967
125	3480	3527	3565	3610	3638	3670	3688	3707	3717
150	4216	4268	4309	4357	4386	4419	4437	4457	4467
175	4954	5011	5054	5105	5135	5168	5187	5207	5217
200	5694	5754	5800	5853	5883	5918	5937	5957	5967
225	6436	6499	6547	6601	6632	6667	6686	6706	6717
250	7178	7244	7294	7349	7381	7417	7436	7456	7467
275	7921	7990	8041	8098	8130	8166	8186	8206	8217
300	8665	8737	8789	8847	8880	8916	8936	8956	8967
350	10154	10230	10285	10345	10379	10416	10435	10456	10467
400	11645	11725	11782	11843	11878	11915	11935	11956	11967
450	13137	13220	13279	13342	13377	13415	13435	13456	13466
500	14630	14716	14776	14840	14876	14914	14935	14956	14966
550	16124	16213	16274	16339	16375	16414	16434	16456	16466
600	17618	17710	17773	17839	17875	17914	17934	17955	17966
650	19113	19207	19271	19338	19374	19414	19434	19455	19466
700	20609	20704	20769	20837	20874	20913	20934	20955	20966
750	22105	22202	22268	22336	22374	22413	22434	22455	22466
800	23601	23700	23767	23836	23873	23913	23934	23955	23966
850	25097	25198	25266	25335	25373	25413	25434	25455	25466
900	26594	26696	26765	26835	26873	26913	26934	26955	26966
950	28091	28195	28264	28334	28372	28413	28434	28455	28466
1000	29588	29693	29763	29834	29872	29913	29934	29955	29966

Table A-8: 180 Seconds Average Service Time

agents	delay times								
	15	22	30	45	60	90	120	180	240
1	2	2	2	2	3	3	3	4	5
2	11	11	11	12	13	14	16	19	21
3	22	23	24	25	26	29	31	35	39
4	35	36	37	39	41	45	48	53	57
5	49	51	52	55	57	62	66	72	76
6	64	66	67	71	74	79	84	91	96
7	79	81	83	87	91	97	102	110	115
8	95	97	100	104	108	115	121	129	134
9	111	113	116	122	126	134	140	148	154
10	127	130	133	139	144	152	159	168	174
12	160	164	168	175	180	190	197	207	213
14	194	198	203	211	217	228	236	246	253
16	228	233	239	247	255	266	274	285	292
18	263	269	275	284	292	305	313	325	332
20	298	304	311	322	330	343	353	364	372
25	387	395	403	416	426	441	451	463	471
30	478	487	497	511	523	539	549	563	571
35	570	581	591	607	620	637	648	662	670
40	662	674	686	704	717	736	747	762	770
45	755	769	782	801	815	834	847	861	870
50	849	864	878	898	913	933	946	961	970
60	1038	1055	1071	1094	1110	1132	1145	1160	1169
70	1228	1247	1265	1290	1307	1330	1344	1360	1369
80	1419	1441	1460	1487	1505	1529	1543	1560	1569
90	1612	1635	1656	1684	1703	1728	1743	1759	1769
100	1804	1829	1852	1882	1902	1927	1942	1959	1968
125	2289	2318	2343	2377	2399	2425	2441	2459	2468
150	2776	2809	2837	2873	2896	2924	2940	2958	2968
175	3264	3301	3331	3369	3394	3423	3440	3458	3468
200	3755	3794	3826	3867	3892	3922	3939	3958	3968
225	4246	4288	4322	4365	4391	4421	4439	4458	4468
250	4738	4783	4819	4863	4890	4921	4938	4957	4967
275	5231	5278	5316	5361	5388	5420	5438	5457	5467
300	5724	5774	5813	5859	5887	5920	5938	5957	5967
350	6713	6766	6808	6857	6886	6919	6937	6957	6967
400	7703	7760	7804	7854	7885	7918	7937	7957	7967
450	8694	8754	8800	8853	8883	8918	8937	8957	8967
500	9686	9750	9797	9851	9882	9917	9936	9956	9967
550	10680	10745	10795	10850	10882	10917	10936	10956	10967
600	11673	11742	11792	11848	11881	11917	11936	11956	11967
650	12668	12738	12790	12847	12880	12916	12936	12956	12967
700	13662	13735	13788	13846	13880	13916	13936	13956	13967
750	14657	14732	14786	14845	14879	14916	14935	14956	14967
800	15653	15730	15785	15845	15879	15916	15935	15956	15967
850	16649	16727	16783	16844	16878	16915	16935	16956	16967
900	17645	17725	17782	17843	17878	17915	17935	17956	17967
950	18641	18723	18780	18842	18877	18915	18935	18956	18966
1000	19638	19721	19779	19842	19877	19915	19935	19956	19966

Table A-9: 240 Seconds Average Service Time

agents	delay times								
	15	22	30	45	60	90	120	180	240
1	2	2	2	2	2	2	2	3	3
2	8	8	8	9	9	10	11	12	14
3	16	17	17	18	19	20	22	24	27
4	26	27	27	28	30	32	34	37	40
5	36	37	38	40	41	44	46	51	54
6	47	48	49	51	53	57	59	64	68
7	58	60	61	63	66	69	73	78	82
8	70	71	73	76	78	83	87	92	97
9	82	83	85	88	91	96	100	107	111
10	94	96	98	101	104	110	114	121	126
12	118	121	123	127	131	137	142	150	155
14	143	146	149	154	158	165	171	179	185
16	169	172	175	181	186	194	200	208	214
18	195	198	202	208	213	222	229	238	244
20	221	225	229	235	241	251	258	267	273
25	287	292	297	305	312	323	331	341	348
30	354	360	366	376	383	395	404	415	422
35	422	429	436	447	456	469	478	490	497
40	491	499	506	518	528	542	552	564	571
45	561	569	577	590	601	616	626	638	646
50	630	639	649	663	674	689	700	713	721
60	771	781	792	808	820	837	849	862	870
70	912	924	936	954	967	986	998	1012	1020
80	1055	1068	1081	1101	1115	1134	1147	1161	1170
90	1198	1213	1227	1248	1263	1283	1296	1311	1320
100	1341	1358	1373	1395	1411	1432	1445	1461	1469
125	1702	1722	1740	1765	1782	1805	1819	1835	1844
150	2065	2088	2108	2136	2155	2179	2193	2210	2219
175	2430	2455	2477	2507	2527	2552	2567	2584	2593
200	2796	2823	2847	2879	2900	2926	2942	2959	2968
225	3162	3192	3218	3251	3273	3300	3316	3334	3343
250	3530	3562	3589	3624	3647	3675	3691	3708	3718
275	3898	3932	3961	3997	4021	4049	4065	4083	4093
300	4267	4302	4332	4370	4394	4423	4440	4458	4468
350	5005	5045	5077	5117	5142	5172	5189	5208	5218
400	5746	5788	5822	5865	5891	5922	5939	5958	5968
450	6487	6532	6568	6612	6639	6671	6688	6707	6717
500	7229	7277	7315	7360	7388	7420	7438	7457	7467
550	7972	8022	8062	8109	8137	8170	8188	8207	8217
600	8715	8768	8809	8857	8886	8919	8937	8957	8967
650	9459	9514	9557	9606	9635	9669	9687	9707	9717
700	10204	10261	10304	10355	10385	10418	10437	10457	10467
750	10949	11007	11052	11104	11134	11168	11187	11207	11217
800	11694	11754	11800	11853	11883	11918	11937	11957	11967
850	12440	12502	12549	12602	12633	12668	12686	12706	12717
900	13186	13249	13297	13351	13382	13417	13436	13456	13467
950	13932	13997	14045	14100	14132	14167	14186	14206	14217
1000	14678	14744	14794	14849	14881	14917	14936	14956	14967

Table A-10: 300 Seconds Average Service Time

agents	delay times								
	15	22	30	45	60	90	120	180	240
1	1	1	1	1	1	2	2	2	2
2	6	6	7	7	7	8	8	9	10
3	13	13	13	14	14	15	16	18	20
4	21	21	21	22	23	24	26	28	30
5	29	29	30	31	32	34	36	39	41
6	37	38	39	40	41	44	46	49	52
7	46	47	48	50	51	54	56	60	63
8	56	56	57	59	61	64	67	71	75
9	65	66	67	69	71	75	78	83	86
10	74	76	77	79	81	85	89	94	98
12	94	95	97	100	102	107	111	117	121
14	114	116	117	121	124	129	133	140	144
16	134	136	138	142	145	151	156	163	168
18	155	157	159	164	167	174	179	186	191
20	175	178	181	185	189	196	202	210	215
25	228	231	235	240	245	253	260	268	274
30	281	285	289	296	302	311	318	327	333
35	336	340	345	352	359	369	377	387	393
40	390	395	401	409	416	427	435	446	453
45	445	451	457	466	474	486	494	505	512
50	501	507	513	524	532	545	554	565	572
60	612	620	627	639	649	662	672	684	691
70	725	734	742	755	766	781	791	804	811
80	838	848	857	872	883	899	910	923	931
90	952	963	973	989	1001	1018	1029	1043	1050
100	1067	1078	1089	1106	1119	1137	1148	1162	1170
125	1354	1368	1381	1401	1415	1434	1447	1461	1470
150	1643	1659	1675	1696	1712	1733	1746	1761	1769
175	1934	1952	1969	1992	2009	2031	2045	2060	2069
200	2225	2245	2264	2289	2307	2330	2344	2360	2369
225	2518	2539	2559	2586	2605	2629	2643	2660	2669
250	2811	2834	2855	2884	2904	2928	2943	2959	2969
275	3104	3129	3152	3182	3202	3227	3242	3259	3268
300	3398	3425	3449	3480	3501	3527	3542	3559	3568
350	3987	4017	4043	4076	4098	4125	4141	4159	4168
400	4578	4610	4638	4674	4697	4724	4741	4758	4768
450	5170	5204	5234	5271	5295	5324	5340	5358	5368
500	5762	5799	5830	5869	5894	5923	5940	5958	5968
550	6355	6394	6427	6467	6492	6522	6539	6558	6568
600	6948	6990	7024	7065	7091	7122	7139	7158	7168
650	7543	7586	7621	7664	7690	7721	7739	7757	7767
700	8137	8182	8219	8262	8290	8321	8338	8357	8367
750	8732	8779	8816	8861	8889	8920	8938	8957	8967
800	9327	9376	9414	9460	9488	9520	9538	9557	9567
850	9923	9973	10012	10059	10087	10120	10138	10157	10167
900	10518	10570	10610	10658	10687	10719	10738	10757	10767
950	11114	11167	11209	11257	11286	11319	11337	11357	11367
1000	11711	11765	11807	11856	11886	11919	11937	11957	11967

Table A-11: 600 Seconds Average Service Time

agents	delay times								
	22	30	45	60	90	120	180	240	360
1	1	1	1	1	1	1	1	1	1
2	3	3	3	3	3	4	4	4	5
3	6	6	7	7	7	7	8	8	9
4	10	10	11	11	11	11	12	13	14
5	14	14	15	15	15	16	17	18	19
6	19	19	19	19	20	21	22	23	25
7	23	23	24	24	25	26	27	28	30
8	28	28	28	29	30	30	32	33	36
9	32	32	33	34	35	36	37	39	41
10	37	37	38	38	40	41	43	44	47
12	47	47	48	48	50	51	53	55	58
14	56	57	58	59	60	62	64	67	70
16	66	67	68	69	71	73	76	78	81
18	77	77	78	80	82	84	87	89	93
20	87	88	89	90	93	95	98	101	105
25	113	114	116	117	120	123	127	130	134
30	140	141	143	145	148	151	156	159	164
35	166	168	170	172	176	179	185	188	193
40	194	195	198	200	205	208	214	218	223
45	221	223	226	228	233	237	243	247	253
50	248	250	254	257	262	266	272	277	282
60	304	306	310	314	320	324	331	336	342
70	360	363	367	371	378	383	390	395	402
80	416	419	424	429	436	442	450	455	461
90	473	476	482	487	495	501	509	514	521
100	530	533	539	545	553	560	568	574	581
125	672	677	684	691	700	708	717	723	731
150	816	822	830	837	848	856	866	873	880
175	961	967	977	984	996	1005	1016	1022	1030
200	1106	1113	1123	1132	1145	1154	1165	1172	1180
225	1251	1259	1270	1280	1293	1303	1314	1322	1330
250	1397	1405	1418	1428	1442	1452	1464	1471	1480
275	1543	1552	1565	1576	1591	1601	1614	1621	1630
300	1690	1699	1713	1724	1740	1750	1763	1771	1780
350	1983	1994	2010	2021	2038	2049	2063	2071	2079
400	2277	2289	2306	2319	2337	2348	2362	2370	2379
450	2572	2585	2603	2617	2636	2648	2662	2670	2679
500	2867	2881	2901	2915	2934	2947	2961	2970	2979
550	3163	3177	3198	3213	3234	3246	3261	3270	3279
600	3459	3474	3496	3512	3533	3546	3561	3569	3579
650	3755	3771	3794	3811	3832	3845	3861	3869	3879
700	4051	4069	4092	4109	4131	4145	4160	4169	4179
750	4348	4366	4391	4408	4431	4444	4460	4469	4479
800	4645	4664	4689	4707	4730	4744	4760	4769	4779
850	4942	4961	4988	5006	5029	5044	5060	5069	5079
900	5239	5259	5286	5305	5329	5343	5360	5369	5378
950	5536	5557	5585	5604	5629	5643	5660	5669	5678
1000	5834	5855	5884	5904	5928	5943	5959	5969	5978

Trunk Engineering Guidelines

The number of trunks required for an ACD is about 1.1 to 1.7 times the number of agents (when a blocked call represents potential lost revenue). The number of trunks required for an ACD is based on the incoming traffic to *each split*, not the ACD as a whole.

The left-most column in Table A-12 lists the number of trunks required to service an ACD depending on the carried load in *erlangs* and the blocking probability. Blocking probability relates to the desired grade of service. The possible blocking probabilities are shown across the top of Table A-12, and the entries under the blocking probabilities are carried loads in *erlangs*.

To determine the number of trunks needed for a given split, use Table A-12 to:

- Estimate the average call duration: the total time a caller spends waiting for an answer, plus any time on hold, plus the service time (the time the caller spends talking to an agent).
- Estimate the number of *busy-hour calls* received by the ACD during peak levels of caller activity.
- Multiply the call duration (in fractions of an hour) by the rate of *busy-hour calls* (in calls per hour). This number is the carried load in *erlangs*.
- Determine the desired grade of service (the blocking probability). The blocking probability for each split is defined as the ratio of blocked calls to the total number of incoming calls.
- In the column corresponding to the desired grade of service, choose the nearest bigger carried load. The number of trunks required is then read from the left-most column.

Note

The entries in Table A-12 are offered loads in *erlangs*.

Example 4:

An airline reservation agency has an ACD that queues calls after two ring cycles (12 seconds). The agency knows that the average caller spends 30 seconds waiting while queued to a split, and requires 6 minutes and 20 seconds to service. The busy-hour call arrival rate is 1980 per hour. How many trunks does the agency need to provide a service level of 99 percent?

average call duration = 12 + 30 + 380 = 422 seconds or 0.11722 hours

Therefore, the carried load in *erlangs* is:

$$\text{carried load} = 0.11722 \times 1980 = 232.1$$

Under the 1 percent column, you will find that 250 trunks can service a carried load of 226.0 *erlangs* while 275 trunks can service 250.2 *erlangs*. Interpolate as shown below.

If y = number of trunks, then:

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 250 + \left[(275 - 250) \frac{232.1 - 226}{250.2 - 226} \right]$$

$$y = 250 + \left[25 \frac{6.1}{23.2} \right]$$

$$y = 256.3$$

Therefore, the agency will need 257 trunks to satisfy its customers.

Table A-12: ACD Trunk Engineering

Trunks	Blocking Probability								
	0.01%	0.02%	0.05%	0.10%	0.20%	0.50%	1.00%	2.00%	5.00%
1	.0002	.0003	.0006	.0011	.0021	.0050	.0100	.0200	.0500
2	.0142	.0202	.0321	.0457	.0652	.1049	.1511	.2190	.3622
3	.0868	.1102	.1516	.1936	.2482	.3473	.4509	.5902	.8544
4	.2347	.2824	.3622	.4388	.5340	.6977	.8607	1.070	1.448
5	.4519	.5269	.6482	.7614	.8981	1.126	1.347	1.624	2.108
6	.7282	.8314	.9952	1.145	1.323	1.614	1.890	2.230	2.812
7	1.054	1.186	1.392	1.577	1.795	2.147	2.476	2.877	3.551
8	1.422	1.582	1.829	2.049	2.306	2.716	3.096	3.555	4.316
9	1.825	2.013	2.300	2.555	2.849	3.316	3.745	4.258	5.102
10	2.260	2.474	2.801	3.089	3.420	3.941	4.417	4.982	5.905
12	3.207	3.473	3.876	4.227	4.628	5.253	5.817	6.482	7.553
14	4.238	4.555	5.030	5.441	5.907	6.630	7.278	8.036	9.243
16	5.338	5.703	6.246	6.715	7.244	8.059	8.786	9.632	10.97
18	6.495	6.905	7.515	8.038	8.626	9.530	10.33	11.26	12.72
20	7.700	8.154	8.827	9.402	10.05	11.04	11.91	12.92	14.49
25	10.88	11.44	12.26	12.96	13.74	14.92	15.96	17.15	18.99
30	14.24	14.90	15.86	16.67	17.57	18.94	20.13	21.49	23.56
35	17.75	18.49	19.58	20.50	21.52	23.05	24.39	25.91	28.19
40	21.37	22.19	23.40	24.42	25.55	27.24	28.72	30.38	32.87
45	25.08	25.98	27.31	28.42	29.65	31.50	33.10	34.89	37.57
50	28.86	29.85	31.28	32.48	33.81	35.80	37.52	39.45	42.31
60	36.62	37.75	39.38	40.75	42.27	44.53	46.48	48.65	51.84
70	44.57	45.83	47.66	49.19	50.88	53.39	55.55	57.95	61.43
80	52.68	54.07	56.07	57.75	59.60	62.35	64.71	67.31	71.08
90	60.92	62.42	64.60	66.42	68.42	71.40	73.94	76.74	80.76
100	69.26	70.87	73.21	75.17	77.31	80.51	83.22	86.21	90.48
125	90.47	92.35	95.07	97.33	99.82	103.5	106.6	110.1	114.9
150	112.1	114.2	117.3	119.8	122.6	126.8	130.3	134.1	139.4
175	134.0	136.3	139.7	142.5	145.6	150.2	154.0	158.2	163.9
200	156.2	158.7	162.4	165.5	168.8	173.8	177.9	182.4	188.6
225	178.5	181.3	185.2	188.5	192.1	197.5	201.9	206.7	213.3
250	201.0	203.9	208.2	211.7	215.6	221.3	226.0	231.1	238.0
275	223.7	226.8	231.3	235.0	239.1	245.1	250.2	255.5	262.7
300	246.4	249.7	254.4	258.4	262.7	269.1	274.4	280.0	287.5
400	338.4	342.3	347.9	352.6	357.8	365.3	371.6	378.2	386.7
500	431.4	435.9	442.3	447.7	453.6	462.2	469.3	476.7	486.2
600	525.1	530.1	537.3	543.4	549.9	559.5	567.3	575.5	585.7
700	619.4	624.9	632.8	639.4	646.6	657.1	665.6	674.5	685.4
800	714.2	720.1	728.7	735.8	743.6	754.9	764.1	773.5	785.1
900	809.3	815.7	824.9	832.5	840.8	852.9	862.7	872.7	884.8
1000	904.7	911.5	921.3	929.4	938.2	951.1	961.5	972.0	984.6
1100	1000	1008	1018	1026	1036	1049	1060	1071	1084
1200	1096	1104	1115	1124	1134	1148	1159	1171	1184
1300	1192	1200	1212	1221	1231	1246	1258	1270	1284
1400	1289	1297	1309	1319	1329	1345	1357	1370	1384
1500	1385	1394	1406	1416	1427	1444	1456	1469	1484
1600	1482	1490	1503	1514	1526	1542	1556	1569	1584
1700	1578	1587	1601	1612	1624	1641	1655	1668	1684

Appendix B

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General Information

Audience

Appendix B is written for the *CentreVu*™ Call Management System (*CentreVu* CMS) administrator and users who need a general understanding of Call Vectoring and related features on the *DEFINITY*® Communications System Generic 3, including the *DEFINITY* Enterprise Communications Server (ECS).

Introduction

This appendix gives an overview of the Call Vectoring, Call Prompting, *Callvisor*™ Adjunct/Switch Application Interface (ASAI), and Look Ahead Interflow features on the *DEFINITY* Communications System Generic 3. It also shows examples of vectors that can be administered using the Vectoring feature of the *CentreVu* CMS Release 3 Version 5 (R3V5). The Vectoring feature of *CentreVu* CMS enables CMS to work with Call Vectoring and other switch features that use vectors to process calls.



You must have the Call Vectoring feature to use the Expert Agent Selection (EAS) feature. **If EAS is administered on the switch, the word skill replaces the word split when administering vectors from CentreVu CMS.** See Appendix D, “Expert Agent Selection and *CentreVu* CMS,” for more information about EAS.

With the *CentreVu* CMS Vectoring feature, you can:

- Administer vectors and other aspects of the Call Vectoring feature from *CentreVu* CMS.
- Generate reports about vectors and Vector Directory Numbers (VDNs).

The *CentreVu* CMS Vectoring feature is not part of the standard *CentreVu* CMS software; it must be purchased separately. Like *CentreVu* CMS Vectoring, Call Vectoring, Call Prompting, *Callvisor* ASAI, and Look Ahead Interflow are not standard ECS/Generic 3 features; they must be purchased separately.

To use the *CentreVu* CMS Vectoring feature, the Call Vectoring feature **must** be administered on the switch. The *Callvisor* ASAI and Look Ahead Interflow switch features typically use vectors and, therefore, Call Vectoring must be administered on the switch to use these features. *CentreVu* CMS Vectoring is **not** required for the Look Ahead Interflow and ASAI Gateway Interface features unless you want to administer

vectors from *CentreVu* CMS. Call Prompting does not require Call Vectoring on the switch but does require *CentreVu* CMS Vectoring.

For more detailed information about the Call Vectoring, Call Prompting, *Callvisor* ASAI, and Look Ahead Interflow features, read the feature descriptions in the product documentation that came with your switch.

The Call Vectoring Feature

Vectors and VDNs

Call Vectoring is a highly flexible way of processing incoming and internal calls. Software components called vectors and Vector Directory Numbers (VDNs) provide this capability.

Vectors

A **vector** is a set of commands that specifies the type of processing or treatment a call receives. Call treatment includes: queuing calls to ACD splits/skills, giving the caller feedback (such as ringback or music) or checking the status of backup splits/skills if calls cannot be answered immediately, playing announcements, routing calls to internal or external destinations, and more. This treatment can change automatically based on time of day and day of week, how long a call has waited, or changing traffic or staffing conditions. Standard *CentreVu* CMS reports can be used to track calls processed by a vector.

You can use the ACD Administration: Vector Contents window shown in Figure B-1 to administer vectors on the switch from *CentreVu* CMS.

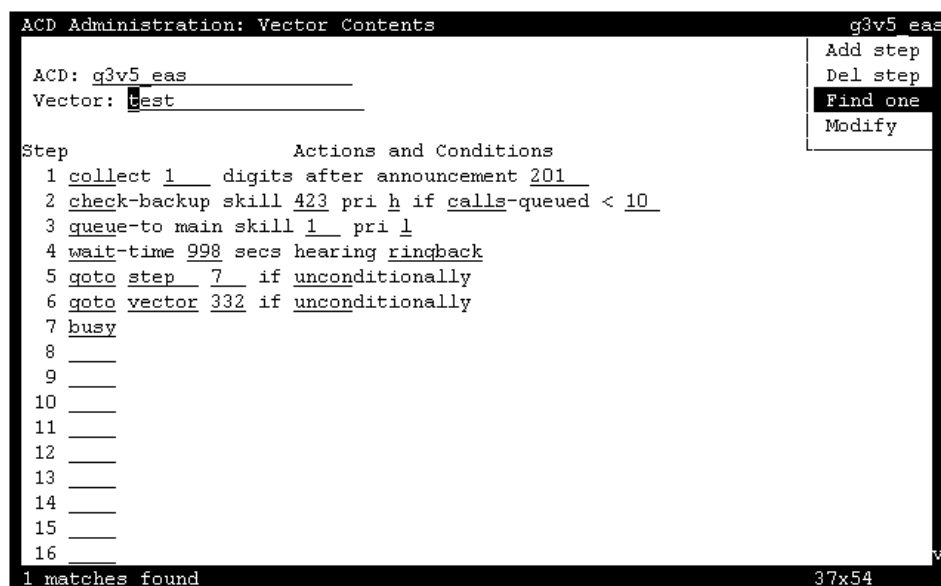


Figure B-1: *CentreVu* CMS Vector Contents Window with Sample Vector

A vector may have as many as 15 commands (as many as 32 commands for the ECS and Generic 3 Version 2 or later switches) administered as vector steps. See Chapter 6, “ACD Administration,” for information about adding a new vector, copying a vector, and modifying a vector and for the allowed values for the vectoring commands.

VDNs

A **VDN** is a special extension number that provides access to a vector. A VDN is also called a “soft” extension number because, unlike a regular extension number, no hardware is assigned to a VDN. Instead, each VDN is assigned to a vector. Only one vector can be assigned to a VDN; however, several VDNs can be assigned to the same vector. VDNs can be reassigned to different vectors through the *DEFINITY* switch or through *CentreVu* CMS administration. Standard *CentreVu* CMS reports can be used to track calls to VDNs by type and purpose.

Calls reach a vector in one of the following ways:

- **Through a Direct Inward Dial (DID) Trunk Group and a VDN**

For a call on a Direct Inward Dial (DID) trunk group, the digits the network terminating office passes to the *DEFINITY* switch are administered on the switch as a VDN. The switch processes the digits immediately or adds or deletes a digit as needed. Then the switch connects the trunk to the vector assigned to the VDN. Thus, for DID trunk groups, the digits sent by the network terminating office **are** the VDN, plus or minus a digit.

- **Through the Public Network and a VDN**

For public network free call and billed (such as 1-900) services using public network incoming trunk groups, the public network assigns Dialed Number Identification Service (DNIS) digits to the call. The network passes the DNIS digits to the switch over a DID trunk group. These same digits are assigned in the switch as a VDN. When the switch receives the DNIS digits, it recognizes them as a VDN and connects the call to the assigned vector. Therefore, the digits outputted by the network terminating office must match the VDN administered in the switch. The actual number entered by the customer does not necessarily correspond to the digits sent by the network.

- **Through an Automatic-In Trunk Group and a VDN**

An automatic-in trunk group (also known as an attendant-completing trunk group) is assigned to send calls to a specific VDN. When a call is placed to that trunk group's phone number, the Central Office (CO) seizes a trunk to the switch. The switch then connects the call to the VDN the trunk group is assigned to and the vector associated with the VDN begins processing the call. Thus, for automatic-in trunk groups, the number dialed by the caller may not have the same final digits as the VDN.

- **Through an Internally Dialed VDN**

Like dialing an internal personal extension, a VDN may be dialed from a station connected to the switch. In this case, only the VDN digits are dialed. The call is processed by the vector to which the VDN is assigned.

- **Through a Listed Directory Number (LDN) and a VDN**

A VDN can be assigned as the night destination for an LDN.

Vector Control of ACD Calls

On the ECS or a Generic 3 switch, you must specify whether a split is vector-controlled or not. For vector-controlled splits, call-treatment parameters are assigned on a VDN or vector basis. (With EAS, all ACD hunt groups must be vector-controlled.) For splits that are not vector-controlled, call-treatment parameters are assigned on a split basis. As Figure B-2 shows, a system can have both vector-controlled splits and non-vector controlled splits.

Vector-Controlled Splits

Automatic-in trunk groups are assigned to VDNs and each VDN is assigned to a vector. ACD calls (and other incoming calls) are directed to vectors which specify the treatment the calls will receive. Call treatment is based on the commands and the conditions specified in the vector.

Splits Not Vector-Controlled

Automatic-in trunk groups and call-treatment parameters are assigned to each ACD split. ACD calls are directed to splits and are given the treatment assigned to the split.

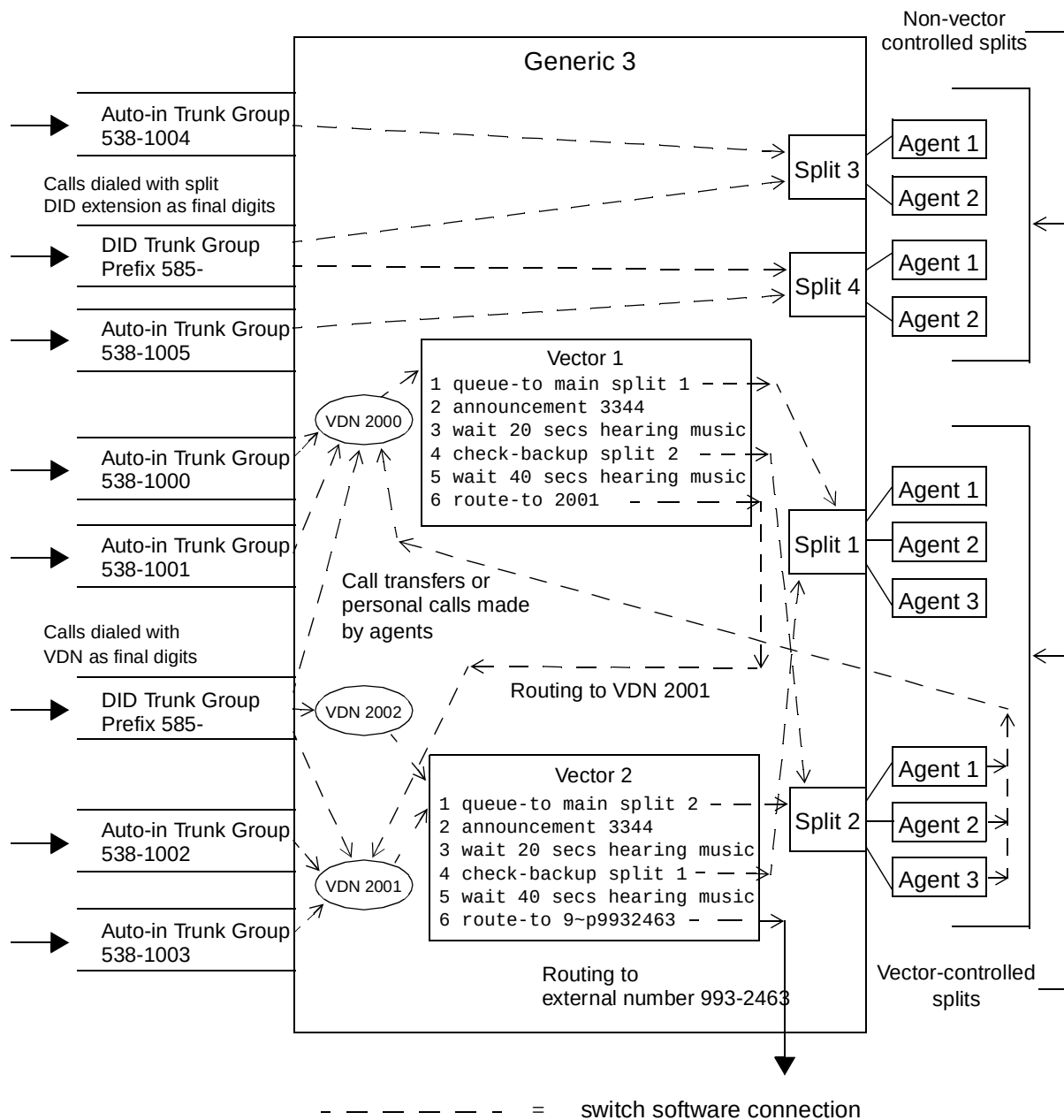


Figure B-2: ECS/G3 Configuration with Vector-Controlled and Non-Vector Controlled Splits

Answer Supervision in a Vectoring Environment

Answer supervision is a signal sent from the switch to the serving Central Office (CO) that tells the CO to begin recording toll charges for a call, if toll charges apply. Lucent ACD software can delay sending answer supervision while a call waits in a split/skill queue, so that the ACD owner/operator or caller can avoid some toll charges.

With Call Vectoring, the desire to delay answer supervision can influence the choice and order of call treatments specified in a vector. Answer supervision is sent when a call is answered or just before the caller hears a recorded announcement or music. Answer supervision is also sent when a call is disconnected (except with ISDN trunks).

The type of incoming trunk also influences when answer supervision is sent. For an auto-in trunk, a wait step with silence triggers answer supervision for the call. However, for a dial-repeating trunk, a wait step with silence does *not* trigger answer supervision. Therefore, when trunk routing to a vector (via the VDN) is changed, the effect on answer supervision should be considered. See the description of the “wait” command later in this appendix.

Caller Feedback

The feedback a caller hears while a call is being processed by a vector depends on how the call originated.

For internal and non-CO (DNIS, DID or tie trunk) calls, the calling party hears silence until one of the following occurs:

- A “wait” command with music or ringback is processed.
- An announcement is played.
- A “busy” command is processed.
- The call is sent to an answering position, and the telephone begins to ring.

For CO calls, the calling party hears CO ringback until one of the following occurs:

- An announcement is played.
- A “wait” command with music is processed.
- The call is answered.

See the Sample Vectors section of this description for examples of vectors that provide caller feedback.

How Vectors Are Processed

The Call Vectoring software on the switch processes the commands in a vector (administered as vector steps) sequentially. That is, Step 1 is processed first, Step 2 second, and so forth. The “goto step” and “goto vector” commands are exceptions. These commands provide conditional or unconditional branching (movement) to a step other than the next sequential step.

Conditional branching means that a vector command specifies a condition that must be met before the command is executed. If the specified condition is not met, vector processing skips the command and processes the next vector step (branching does not occur). If the specified condition is met, vector processing branches to the step (in the same vector) or to the vector specified in the command.

Unconditional branching means that branching always occurs. You can use unconditional branching, for example, to repeat the vector commands that play a recorded announcement while calls wait in queue.

Conditional branching allows call treatment to change automatically and dynamically based on one or more of the following conditions:

- Time of day
- Day of week
- Number of calls in queue
- Time the oldest call in queue has waited
- Number of staffed agents
- Number of available agents
- Automatic Number Identification (ANI) or Information Indicator (II) digits received with the call (available with *CentreVu* CMS R3V4 or R3V5, the ECS, and G3V4 or later switches)
- Switch-based rolling Average Speed of Answer (ASA) for the specified VDN or split/skill (available with *CentreVu* CMS R3V4 or R3V5, the ECS, and G3V4 or later switches)
- Number of counted calls (also called active calls) to the VDN (available with *CentreVu* CMS R3V4 or R3V5, the ECS, and G3V4 or later switches)
- Expected Wait Time (EWT) for the specified split/skill or call (available with *CentreVu* CMS R3V4 or R3V5, the ECS, and G3V4 or later switches).

For example, a vector can be set up to give different call treatments based on time of day and day of week. During normal business hours, calls may be queued to a split/skill. After business hours, the same vector

may play an announcement and disconnect calls or direct calls to a voice-mail or messaging system. A vector can also be set up to send calls to a different split/skill if no agents are staffed or available in the original destination split/skill.

The “goto vector” command can be used to chain two or more vectors together. This allows you to create a chain of vectors that has far more steps than the limit for a single vector (15 steps for Generic 3 Version 1 switches; 32 steps for the ECS and Generic 3 Version 2 or later switches).

The number of steps vector processing will execute is limited to 1000. When this limit is reached, processing of vector steps stops; however, any previously established call treatment continues, and calls that are in queue remain in queue. This step-execution limit enables vector processing to recover from a vector that contains an endless loop.

Vector processing stops automatically after the last step in a vector is processed. If the calling party disconnects (hangs up) while the call is being processed, vector processing and any previously established call treatment end. If the call is not queued to a split/skill when the last step is processed, the switch disconnects the call.

Vector Commands

A call vector is a set of as many as 15/32 (G3V1/G3V2 or later) vector commands. Vector commands specify the type of processing or treatment specific calls receive. Vectors can be administered from *CentreVu* CMS only if the Call Vectoring feature has been purchased for both the switch and *CentreVu* CMS. Table B-1 gives a brief description of each vector command and references the page number in this appendix where you can find a more complete description of the command.

Table B-1: Vector Commands Description/Reference

Command	Description	Page
adjunct routing	Request adjunct routing for a call. (This command is available only if the switch has the Callvisor ASAI Adjunct Route feature.)	page 11
announcement	Connect call to a recorded announcement.	page 11
busy	Connect call to busy tone.	page 11
check-backup split/skill	Connect/queue call to split/skill on a conditional basis.	page 12
collect digits (used with Call Prompting)	Prompt for and collect caller-entered digits or network-provided digits.	page 35
converse-on split/skill (G3V2)	Deliver a call to a converse split/skill, and activate a Voice Response Unit (VRU). (This command is available only with the ECS and Generic 3 Version 2 or later switches.)	page 13
disconnect	Forcibly disconnect a call with optional announcement.	page 14
goto step	Unconditionally/conditionally branch (move) to the specified step in the same vector.	page 14
goto vector	Unconditionally/conditionally branch (move) to the specified vector.	page 19
messaging split/skill	Allow caller to leave message.	page 24
queue-to main split/skill	Connect/queue call to the primary split/skill.	page 25
route-to number	Connect call to internal/external destination.	page 26
route-to digits (used with Call Prompting)	Route the call based on digits supplied by the caller.	page 39
stop	Stop processing of subsequent vector commands.	page 27
wait	Start caller feedback and delay processing of next vector step.	page 27

The “Adjunct Routing” Command

This command is available only if the Call Vectoring and *Callvisor* ASAI Adjunct Route features are administered on the switch. The “adjunct routing” command is used to send call-related information to an ASAI adjunct processor and request routing information from the adjunct. For more information about this command, see the Callvisor Adjunct/Switch Application Interface (ASAI) section in this appendix.

The “Announcement” Command

This command plays the announcement assigned to the specified announcement extension. The “announcement” command has the following format:

announcement xxxxxx

Depending on the type of announcement equipment and how it is administered, callers always hear an announcement from the beginning or they “barge-in” to an announcement as it is playing.

For announcements that always start at the beginning, the caller may have to wait in an announcement queue if the announcement is not ready to play. Callers hear the previously established call treatment (if any) until the announcement starts. If the announcement queue is full, vector processing retries the “announcement” command indefinitely. If the requested announcement is not administered or recorded (integrated announcement board only), vector processing skips the “announcement” command and continues with the next vector command.

If the call is in a split/skill queue, the call remains in queue while the announcement plays. If the call is still in queue after the announcement ends, the caller hears silence until another “announcement” command, a “wait hearing ringback” command, or a “wait hearing music” command is processed. If the call connects to a station while the announcement is playing, the announcement stops and the caller hears ringback.

Answer supervision, if not previously sent, is sent just before an announcement plays.

The “Busy” Command

This command ends vector processing and sends a busy signal. For non-CO trunk calls, the busy signal is sent whether answer supervision has been sent or not. For CO (auto-in) trunk calls, if answer supervision has not been sent (by a previous vector command), the CO ignores the busy signal and continues giving the caller CO ringback. Non-CO trunks are dropped approximately 45 seconds after the busy signal is sent.

The “Check-Backup Split” Command

This command checks the status of a backup split (the word *split* is replaced by the word *skill* if the EAS feature is administered on the switch) for possible call completion. When call completion is not possible, queuing at the specified priority is attempted. Queuing or call completion is attempted only if the backup split/skill meets the conditions specified in the command. The command format and conditions are as follows:

- check-backup split xxx pri x if rolling-asa < xxxx

This vector command is available only with the ECS and Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing checks the specified backup split/skill and queues the call at the specified priority level if the switch-based rolling Average Speed of Answer (ASA) for the split/skill is less than (<) the specified number.

- check-backup split xxx pri x if available-agents > xxxx

Vector processing checks the specified backup split/skill and queues the call at the specified priority level if the number of available agents is greater than (>) the specified number.

- check-backup split xxx pri x if calls-queued < xxxx

Vector processing checks the specified backup split/skill and queues the call at the specified priority level if the number of queued calls is less than (<) the specified number. Only calls that were queued at the specified priority level or at a higher priority level are considered when vector processing checks the specified split/skill queue.

- check-backup split xxx pri x if expected-wait < xxxx

This vector command is available only with the ECS and Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing checks the specified backup split/skill and queues the call at the specified priority level if the Expected Wait Time (EWT) for the split/skill is less than (<) the specified number.

- check-backup split xxx pri x if oldest-call-wait < xxxx

Vector processing checks the specified backup split/skill and queues the call at the specified priority level if the oldest call in queue has waited less than (<) the specified number of seconds. For Generic 3 Version 3 and earlier switches, vector processing considers **all** calls in the specified split/skill queue for the oldest call waiting condition.

- check-backup split xxx pri x if staffed-agents > xxxx

Vector processing checks the specified backup split/skill and queues the call at the specified priority level if the number of staffed (logged-in) agents is greater than (>) the specified number. Note, however, that staffed agents may currently be on ACD calls, in after-call-work, or in AUX work and therefore not available to take the call.

- check-backup split xxx pri x if unconditionally

Vector processing checks the specified backup split/skill and queues the call at the specified priority level unconditionally.

Vector processing checks the backup split/skill only once. If the specified condition is met and an agent is available, the call is connected to the agent. If the condition is met but no agents are available, the call is queued to the split/skill at the specified priority.

Vector processing skips the command and continues with the next vector command if:

- The specified condition is not met.
- The split/skill queue is full. That is, the administered queue length has already been reached.
- The call is already queued to three different splits/skills.
- A queue is not assigned to the split/skill and no agents are available.

If vector processing encounters a “check-backup split” command that specifies a split/skill the call is already queued to but at a different priority level, the priority is raised to the new level if the specified condition is met.

The “Converse” Command

This command is available on the ECS and Generic 3 Version 2 or later switches. The “converse” command integrates Voice Response Units (VRUs) and the Call Vectoring feature. That is, the “converse” command allows voice-response scripts to be executed while, for example, a call waits in queue. This command also allows data to be passed between the switch and a VRU or from a VRU through the switch to an ASAI adjunct processor. The “converse” command has the following format:

converse-on split xxx pri x passing xxxxxx and xxxxxx

The “converse” command can pass any of the following information from the switch to a VRU:

- An administered string of up to six characters including the digits 0 through 9 and the characters * and #. The # character, if used, must be the first and only character passed to the VRU.

- ANI—For internal and Distributed Communications System (DCS) calls, the extension of the calling party is passed to the VRU. For incoming ISDN PRI calls with ANI provided to Generic 3, the calling party number/billing number (CPN/BN) is passed to the VRU.
- VDN—The VDN extension is passed to the VRU. If multiple VDNs are accessed, normal VDN override rules determine which VDN is passed to the VRU.
- Collected digits (only if the Call Prompting feature is administered on the switch)—The most recently collected set of digits is passed to the VRU.
- Queue position—The queue position of the call (in the first non-converse split/skill in which it is queued) is passed to the VRU.
- Wait (ECS and Generic 3 Version 4 or later switches)—The expected wait time for the call is passed to the VRU. The calculation for expected wait time assumes that the call is queued to a non-converse split/skill. Consequently, expected wait time is not passed to the VRU if the call is not queued to a non-converse split/skill before a “converse passing wait” command is processed. The expected wait time cannot be passed to an ASAI adjunct processor.

The “Disconnect” Command

This command disconnects the call the vector is processing. Any previously established call treatment ends and the call is removed from vector processing and from the switch. As an option, this command can specify an announcement that plays before a call is disconnected.

Disconnect with Announcement

If the call is connected to a station while the announcement is playing, the announcement stops and the caller hears ringback. Also, because vector processing stops when the call connects to a station, the disconnect portion of the command is not processed.

If answer supervision has not already been sent, the switch sends answer supervision just before the announcement plays.

Disconnect Without Announcement

For incoming-trunk calls (except ISDN trunks), if answer supervision has not already been sent, the switch sends answer supervision before disconnecting a call. For ISDN trunks, answer supervision is not sent.

The “Goto Step” Command

This command allows conditional or unconditional branching to a later or an earlier step in the vector. Vector processing tests for the condition specified in the “goto step” command. If the test succeeds, vector processing continues at the step specified in the command. Calls remain in queue or continue to receive the treatment that was established before

the “goto step” command was processed. If the test fails, vector processing continues with the next step in the vector (branching does not occur).

The command format and conditions for branching are as follows:

Note

In the following command format examples, the allowed values for the comparator, designated as **CM**, depend on the type of switch the *CentreVu* CMS is connected to. For Generic 3 Version 3 and earlier switches, the allowed values for the comparator are less than (<) or greater than (>). For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto step xx if ani CM xxxxxxxxxxxxxxxx

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the specified step if the Automatic Number Identification (ANI) associated with the call is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number. For ANI routing of external calls, ISDN PRI trunks and ANI Delivery service are required.

In addition to the digits 0 through 9, the number you specify may contain the wild cards ? and + or the word “none.” A ? can be entered in any character position and matches any character in that single character position. A + must be entered as either the first or the last character and matches any or no characters. The word “none” can only be used with the not equal to (<>) and equal to (=) comparators. For example, the conditional “if ani = none” succeeds if ANI is not received for a call.

- goto step xx if ani in/not-in table xxx

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the specified step if the ANI associated with the call is in or not in the specified vector routing table. Vector routing tables are administered on the switch and can contain as many as 100 entries. Each entry can contain up to 16 characters including the wild cards ? and +.

- goto step xx if rolling-asa for split/VDN CM xxx

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to the specified step if the switch-based rolling Average Speed of Answer (ASA) for the specified split/skill or VDN is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number.

- goto step xx if available-agents in split xxx CM xxxx

Vector processing branches to the specified step if the number of available agents in the specified split/skill is less than (<) or greater than (>) the specified number. For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto step xx if calls-queued in split xxx pri x CM xxx

Vector processing branches to the specified step if the number of calls queued to the specified split/skill at the specified priority or higher is less than (<) or greater than (>) the specified number. For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto step xx if counted-calls to vdn xxx CM xxx

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to the specified step if the number of incoming trunk calls that are active for the specified VDN is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number.

A VDN's call count includes the following types of calls:

- Incoming trunk calls that route directly to the VDN by way of DID, DCS, PRI, Tie, or Tandem trunks.
- Incoming trunk calls where the VDN is the incoming destination.

- Incoming trunk night service calls where the VDN is the night service destination.
- Calls that forward or cover to the VDN and have not already routed to another VDN on this switch.

A VDN's call count does **not** include the following types of calls:

- Internal calls to the VDN.
 - Calls that have already routed to another VDN on this switch.
 - Calls that are transferred to the VDN.
- goto step **xx** if expected-wait for call **CM xxxx**
 This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to the specified step if the expected wait time (EWT) for the call is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number. If a call is queued to more than one split/skill, the EWT for the call will be the smallest of the EWT's for all splits/skills to which the call is queued. The call must be queued to a split/skill for this step to succeed.
 - goto step **xx** if expected-wait for split **xxx** pri **x** **CM xxx**
 This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to the specified step if the expected wait time (EWT) in the specified split/skill at the specified priority or higher is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number. The call does not need to be queued to a split/skill before the test is made.
 - goto step **xx** if ii-digits **CM xx**
 This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the specified step if the II (Information Indicator) digits associated with the call are less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number. II-digits are available only over ISDN PRI trunks if the customer subscribes to the ANI and II-Digits Delivery service.

- goto step **xx** if ii-digits **in/not-in** table **xxx**

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the specified step if the II-digits associated with the call are in or not in the specified vector routing table. II-digits are available only over ISDN PRI trunks if the customer subscribes to the ANI and II-Digits Delivery service. Vector routing tables are administered on the switch and can contain as many as 100 entries. Each entry can contain up to 16 characters including the wild cards ? and +.

- goto step **xx** if oldest-call-wait in split **xxx** pri **x** **CM** **xxxx**

Vector processing branches to the specified step if the time (in seconds) that the oldest call has waited in the specified split/skill queue at the specified priority is less than (<) or greater than (>) the specified number. For Generic 3 Version 3 and earlier switches, vector processing considers **all** calls in the specified split/skill queue for the oldest call waiting condition (the pri **x** part of the command does not appear). For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto step **xx** if staffed-agents in split **xxx** **CM** **xxx**

Vector processing branches to the specified step if the number of staffed (logged-in) agents in the specified split/skill is less than (<) or greater than (>) the specified number. For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto step xx if time-of-day is xxx xx:xxxx to xxx xx:xxxx

Vector processing branches to the specified step if the test for time of day and day of week succeeds. This command is often used to provide alternate call treatment when a split/skill (or other answering destination) is unstaffed. Instead of specifying a range that includes every day of the week, you may enter **all** in the day-of-week blanks. For example, to branch to an alternate call treatment every day between 5:00 p.m. and 8:00 a.m., specify the following for the time-of-day and day-of-week portion of the “goto” command:

all **5:00PM** to **all** **8:00AM**

Note

The time may be specified as am/pm or in 24-hour notation. The equivalent of 8:00 a.m. in 24-hour notation is 08:00. The equivalent of 5:00 p.m. in 24-hour notation is 17:00.

- goto step xx if unconditionally

Vector processing always branches to the specified step in the vector. Unconditional branching is often used to create a loop by branching to an earlier step in the vector. One example of this type of loop is a delay announcement that repeats. Processing continues until the call is answered, the caller abandons, or the 1000-step processing limit is reached.

See the Call Prompting description in this appendix for information about the “if digits” condition of the “goto step” command.

The “Goto Vector” Command

This command allows conditional or unconditional branching to another vector. Vector processing tests for the condition specified in the “goto vector” command. If the test succeeds, vector processing continues at Step 1 of the vector specified in the command. Calls remain in queue or continue to receive the call treatment that was established before the “goto vector” command was processed. If the test fails, vector processing continues with the next step in the vector (branching does not occur). The “goto vector” command can be used to link two or more vectors.

The command format and conditions for branching are as follows:

Note

In the following command format examples, the allowed values for the comparator (designated as **CM**) depend on the type of switch to which the *CentreVu* CMS is connected. For switches other than Generic 3 Version 4, the allowed values for the comparator are less than (<) or greater than (>). For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto vector **xxx** if ani **CM** **xxxxxxxxxxxxxxxx**

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the specified vector if the Automatic Number Identification (ANI) associated with the call is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number. For ANI routing of external calls, ISDN PRI trunks and ANI Delivery service are required.

In addition to the digits 0 through 9, the number you specify may contain the wild cards ? and + or the word "none." A ? can be entered in any character position and matches any character in that single character position. A + must be entered as either the first or the last character and matches any or no characters. The word "none" can only be used with the not equal to (<>) and equal to (=) comparators. For example, the conditional "if ani = none" succeeds if ANI is not received for a call.

- goto vector **xxx** if ani **in/not-in** table **xxx**

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the specified vector if the ANI associated with the call is in or not in the specified vector routing table. Vector routing tables are administered on the switch and can contain as many as 100 entries. Each entry can contain up to 16 characters including the wild cards ? and +.

- goto vector xxx if rolling-asa for split/VDN CM xxx

This vector command is available only with Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to the specified vector if the switch-based rolling Average Speed of Answer (ASA) for the specified split/skill or VDN is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number.

- goto vector xxx if available-agents in split xxx CM xxxx

Vector processing branches to the specified vector if the number of available agents in the specified split/skill is less than (<) or greater than (>) the specified number. For Generic 3 Version 4 switches and later with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto vector xxx if calls-queued in split xxx pri x CM xxx

Vector processing branches to the specified vector if the number of calls queued to the specified split/skill at the specified priority or higher is less than (<) or greater than (>) the specified number. For Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto vector xxx if counted-calls to vdn xxx CM xxx

This vector command is available only with Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to the specified vector if the number of incoming-trunk calls that are active for the specified VDN is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number.

A VDN's call count includes the following types of calls:

- Incoming trunk calls that route directly to the VDN by way of DID, DCS, PRI, TIE, or TANDEM trunks.
- Incoming trunk calls where the VDN is the incoming destination.
- Incoming trunk night service calls where the VDN is the night

service destination.

- Calls that forward or cover to the VDN and have not already routed to another VDN on this switch.

A VDN's call count does **not** include the following types of calls:

- Internal calls to the VDN.
- Calls that have already routed to another VDN on this switch.
- Calls that are transferred to the VDN.

- goto vector **xxx** if expected-wait for call **CM xxxx**

This vector command is available only with Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to the specified vector if the expected wait time (EWT) for the call is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number. If a call is queued to more than one split/skill, the EWT for the call will be the smallest of the EWT's for all splits/skills to which the call is queued.

- goto vector **xxx** if expected-wait for split **xxx** pri **x** **CM xxx**

This vector command is available only with Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (G3V4 Advanced Routing) options. Vector processing branches to specified vector if the expected wait time (EWT) in the specified split/skill at the specified priority or higher is less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number.

- goto vector **xxx** if ii-digits **CM xx**

This vector command is available only with Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the specified vector if the II (Information Indicator) digits associated with the call are less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), or equal to (=) the specified number. II-digits are available only over ISDN PRI trunks if the customer subscribes to the ANI and II-Digits Delivery service.

- goto vector **xxx** if ii-digits **in/not-in** table **xxx**

This vector command is available only with Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options. Vector processing branches to the

specified vector if the II-digits associated with the call are in or not in the specified vector routing table. II-digits are available only over ISDN PRI trunks if the customer subscribes to the ANI and II-Digits Delivery service. Vector routing tables are administered on the switch and can contain as many as 100 entries. Each entry can contain up to 16 characters including the wild cards ? and +.

- goto vector xxx if oldest-call-wait in split xxx pri x **CM** xxxx

Vector processing branches to the specified vector if the time (in seconds) that the oldest call has waited in the specified split/skill queue at the specified priority is less than (<) or greater than (>) the specified number. For Generic 3 Version 3 and earlier switches, vector processing considers **all** calls in the specified split/skill queue for the oldest call waiting condition (the pri x part of the command does not appear). For Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto vector xxx if staffed-agents in split xxx **CM** xxx

Vector processing branches to the specified vector if the number of staffed (logged in) agents in the specified split/skill is less than (<) or greater than (>) the specified number. For Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

- goto vector xxx if time-of-day is xxx xx:xxxx to xxx xx:xxxx

Vector processing branches to the specified vector if the test for time of day and day of week succeeds. This command is often used to provide alternate call treatment when a split/skill (or other answering destination) is unstaffed. Instead of specifying a range that includes every day of the week, you may enter **all** in the day of week blanks. For example, to branch to an alternate call treatment every day between 5:00 p.m. and 8:00 a.m., specify the following for the time-of-day and day-of-week portion of the “goto” command:

all 5:00PM to all 8:00AM

Note

The time may be specified as am/pm or in 24-hour notation. The equivalent of 8:00 a.m. in 24-hour notation is 08:00. The equivalent of 5:00 p.m. in 24-hour notation is 17:00.

- goto vector xxx if unconditionally

Vector processing always branches to the specified vector.

See the Call Prompting description in this appendix for information about the “if digits equal” condition of the “goto vector” command.

The “Messaging Split” Command

This command sends a call to the specified messaging split (*AUDIX*® or Message Center) (the word split is replaced by the word skill if the EAS feature is administered on the switch) so that the caller can leave a message for the extension specified in the command. The “messaging split” command has the following format:

messaging split xxx for extension xxxxxx

The allowed values for the Xs after the word extension in the command format above are: a 3- to 5-digit extension, “active,” or “latest.” If an extension is not specified or if “active” or “latest” (the ECS and Generic 3 Version 4 and later switches) is specified, the message is left for the VDN used to access the vector. If “active” is specified, the message is left for the first VDN to which the call connected. If “latest” is specified, the message is left for the VDN assigned to the vector in which the call is currently being processed, which may or may not be the VDN to which the call originally connected.

The values “active” and “latest” are only valid for Generic 3 Version 4 and later switches. For Generic 3 Version 3 and earlier switches, “none” is used instead of “latest.” There is no equivalent to “active” for Generic 3 Version 3 and earlier switches.

Vector processing ends (if queued, the call is removed from queue and any previously established call treatment ends) and the caller hears ringback if the call is queued to a messaging split/skill or if the call is connected to a Message Center agent or an *AUDIX* voice port.

Vector processing skips a “messaging split” command and continues with the next vector command if:

- The queue assigned to the specified messaging split/skill is full.
- The link to the *AUDIX* is down or all *AUDIX* voice ports are out of service.
- The messaging split/skill is connected by DCS-*AUDIX* and all DCS trunks are busy.

The “Queue-to Main Split” Command

This command queues calls to the specified split (the word split is replaced by the word skill if the EAS feature is administered on the switch) at the specified priority level. The “queue-to main split” command has the following format:

queue-to main split xxx pri x

If no other calls are in queue and an agent is available, the call is immediately distributed to the agent. If other calls are in queue, the call remains in queue until:

- Calls ahead of it in queue are answered and an agent becomes available.
- The caller hangs up (abandons the call).
- A subsequent vector command causes the call to be removed from queue.

Priority levels are like layers of calls. All calls in the highest layer are served before any calls in the layer below are served. There are four levels of priority: low, medium, high, and top. Priority levels allow calls that arrive on different VDNs to be queued to the same split/skill at different priorities. This capability can be used to provide different levels of service for different call types.

On the ECS and Generic 3 switches, a call can queue to as many as three splits/skills simultaneously. To queue a call to more than one split/skill, a vector must contain more than one “queue-to main split” command or “check-backup split” command or a combination of “queue-to main split” and “check-backup split” commands. A call remains queued (to as many as three splits/skills) until the call is answered, a vector command removes the call from queue, or the caller hangs up.

Vector processing skips a “queue-to main split” command if:

- The split/skill queue is full. That is, the administered queue length has already been reached.
- The call is already queued to three different splits/skills.
- A queue is not assigned to the split/skill, and no agents are available.

If vector processing encounters a “queue-to main split” command that specifies a split/skill to which the call is already queued but at a different priority level, the priority is raised to the new level.

The “Route-to Number” Command

This command routes a call to the specified destination. The “route-to number” command has the following format:

route-to number xxxxxxxxxxxxxxxxxxx with cov x

The x's after the word “number” in the command format shown above represent the destination number, which may contain as many as 16 characters. In addition to the digits 0 through 9, the destination number may contain the dial pad characters * and #.

The following are valid destinations:

- An internal extension or VDN
- The attendant
- A remote extension or VDN
- An external number.

The destination number can also include special codes. Each of the following special codes counts as two digits in the maximum 16-digit destination number:

- ~ p (pause)

This code tells the switch to wait 1.5 seconds (the wait time is administrable on the switch) before sending the digits that follow. It is typically used to wait for dial tone on outgoing-trunk calls.

- ~ w (wait)

This code tells the switch to wait 5 to 25 seconds (the wait time is administrable on the switch) or until dial tone is detected before sending the digits that follow. It is typically used when a longer or variable-length wait for dial tone is needed on outgoing-trunk calls.

- ~ W (wait indefinitely)

This code tells the switch to wait until dial tone is detected before sending the digits that follow. It should only be used when the wait for dial tone on outgoing-trunk calls is very long.

- ~ m (mark)

This code allows the digits that follow the mark to be treated as end-to-end signaling digits and sent over an outgoing trunk in touch-tone signal form, even if a dial pulse trunk is used to set up the call.

- ~ s (suppress)

This code should precede any security code, such as a password or authorization code, that is sent as part of the destination number. It prevents the security code from appearing on a station with display

capabilities by replacing each digit of the security code with a lowercase letter.

The “with cov (coverage)” parameter is available only with the ECS and Generic 3 Version 4 and later switches and specifies whether the Call Coverage feature applies to the routed call or not. Calls routed to internal extensions go to coverage if the “with coverage” parameter is set to y (yes) and the Call Coverage feature is assigned and applies. Calls routed to internal extensions do not go to coverage if the “with coverage” parameter is set to n (no).

If the “with coverage” parameter is set to yes and the destination is an internal extension, vector processing stops as soon as the command is processed. If the destination is outside the switch or if the “with coverage” parameter is set to no, coverage does not apply and vector processing stops if the call routes successfully; that is, if the switch connects the call to an internal station or attendant or seizes an outgoing trunk. Vector processing skips the “route-to number” command and continues with the next step in the vector if the call does not route successfully.

Calls routed by a “route-to number” command will forward if the Call Forwarding feature is assigned to the destination number.

If a call is queued to a split/skill when a “route-to number” command is processed, the call is removed from the split/skill queue if the routing succeeds.

See the Call Prompting description in this appendix for information about the “if digits equal” condition of the “route-to number” command.

The “Stop” Command

This command stops processing of subsequent vector steps; however, any previously established call treatment continues. That is, calls queued to a split/skill remain in queue and caller feedback specified in a “wait” command continues. For the ECS and Generic 3 switches, if a call is not queued when vector processing reaches a stop step, the call is disconnected.

The “stop” command is typically used to separate a vector step that should only be reached by way of a “goto step” command from the rest of the vector. See Vector 4—Conditional Branching in the *Sample Vectors* section of this appendix.

The “Wait” Command

This command delays vector processing for the specified amount of time while callers hear silence, ringback, or music. The “wait” command has the following format:

wait-time xxx secs hearing xxxxxxxxxx

Note The keyword matching capability is disabled in the “hearing xxxxxxx” field. Therefore, you must type the entire word (music, silence, continue, or ringback) in the field.

The allowed values for wait times are even numbers between 0 and 998 seconds. If a wait time of 0 seconds is specified, caller feedback and processing of the next vector command begin immediately.

The “wait” command is typically used to provide caller feedback while a call waits in a split/skill queue. If an agent becomes available before the specified wait time expires, caller feedback (silence, ringback, or music) stops and the call is connected to the agent.

Note A “wait” step cannot provide music unless the Music-on-Hold Access feature is implemented on the switch.

If not already returned for an incoming call, answer supervision is sent to the serving switch just before a “wait hearing music” command is processed.

Table B-2 shows the feedback an incoming-trunk caller receives for the different types of “wait” commands.

Table B-2: Caller Feedback for the Wait Command

Wait Type	Trunk Type	Disposition If Answer Supervision Has Not Been Sent	Disposition If Answer Supervision Has Been Sent
Silence	DID, DNIS, Megacom, dial-repeating tie trunks	Caller hears silence.	Caller hears silence.
	Automatic-in	Caller hears ringback from the Central Office (CO).	Caller hears silence.
Ringback	DID, DNIS, Megacom, dial-repeating tie trunks	Caller hears switch ringback.	Caller hears ringback.
	Automatic-in	Caller hears CO ringback.	Caller hears ringback.
Music	DID, DNIS, Megacom, dial-repeating tie trunks	Answer supervision is sent, and the caller hears music.	Caller hears music.
	Automatic-in	Answer supervision is sent, and the caller hears music.	Caller hears music.

For DID-trunk calls, callers hear silence, not ringback, until a “wait” command is processed. As a result, a caller might think the call did not get through. Therefore, vectors that process DID-trunk calls should contain a “wait hearing ringback,” a “wait hearing music,” or an “announcement” command.

If a “wait” command is the last step in a vector (or is followed by a “stop” command), caller feedback continues beyond the specified wait time until the call is answered or the caller abandons the call. However, *CentreVu* CMS vector tracking of the call ends as soon as the specified wait interval expires.

For Generic 3 Version 4 or Later Switches Only

For Generic 3 Version 4 or later switches with the Vectoring (G3V4 Enhanced) option, the “wait” command can also have the following format:

wait-time xxx secs hearing xxxxx then xxxxxxxxx

Note

The keyword matching capability is enabled in the “then xxxxxxxxx” field. Therefore, you can type the first letter of the word you want in the field (m for music, s for silence, c for continue, or r for ringback) in the field.

This new format adds the extension number of an audio or music source to the allowed values for the “hearing” option. The extension number you specify can be assigned to announcement or music equipment. If you specify an extension number for the “hearing” option, you must also specify a “then” option, which can be: silence, ringback, music, or continue. The “then” option is what the caller hears after the “wait” command times out (after the wait time you specify expires).

If you specify “continue” for the “then” option, the audio or music source you specified in the “hearing” option continues until a vector command that changes or stops the caller feedback is processed. If you specify something other than “continue” for the “then” option, the audio or music source specified for the “hearing” option is removed after the “wait” command times out and the feedback you specified for the “then” option is applied. If the audio or music source you specified for the “hearing” option cannot be connected, callers continue to hear the feedback (silence, ringback, or music) they are currently hearing.

This new “wait” command in effect combines the old “wait” and “announcement” commands into one command. With Generic 3 Version 4 and later switches, a single “wait” command can be used to delay vector processing while the caller hears, for example, an announcement followed by music.

If not already returned for an incoming call, answer supervision is sent to the serving switch just before a “wait hearing (extension number of audio or music source)” command is processed.

Sample Vectors

This section shows examples of vectors that can be administered using the Vector Contents window and describes how the vectors work. See Chapter 6, “ACD Administration,” for information about how to use the Vector Contents window to add a new vector or to copy, modify, or delete the contents of an existing vector.

Vector 1—
Information
Announcement

The simplest vectors have only one step. Figure B-3 shows a vector that plays an announcement and then disconnects calls.

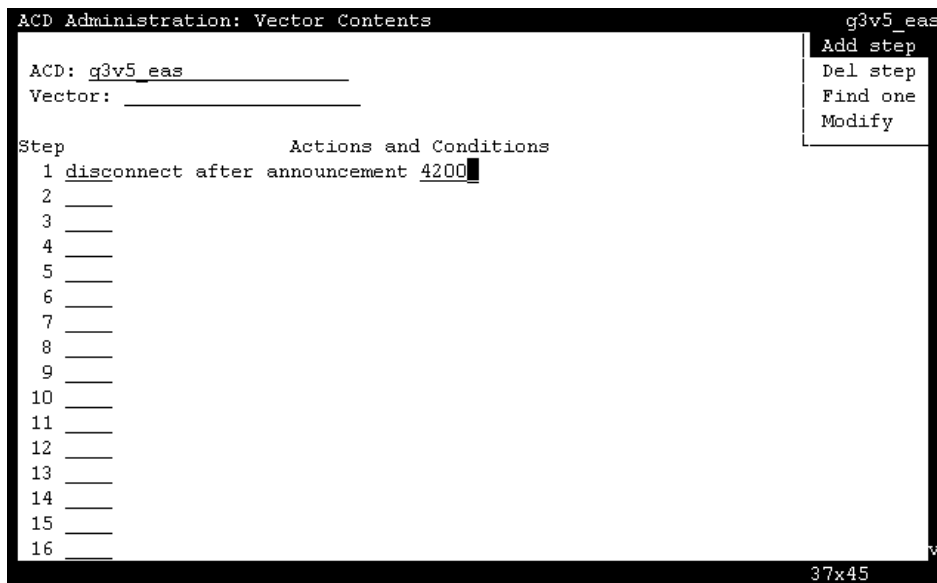


Figure B-3: Vector 1—Information Announcement

Vector 2—Queue to Main Split/Skill with Announcement

Figure B-4 shows a simple vector that queues calls to an ACD split and plays an announcement if a call waits in queue for more than 12 seconds.

ACD Administration: Vector Contents

ACD: g3v5_eas

Vector: _____

Step	Actions and Conditions
1	<u>queue-to main skill 3 pri m</u>
2	<u>wait-time 12 secs hearing ringback</u>
3	<u>announcement 5400</u>
4	<u>wait-time 998 secs hearing music</u>
5	_____
6	_____
7	_____
8	_____
9	_____
10	_____
11	_____
12	_____
13	_____
14	_____
15	_____
16	_____

37x45

Figure B-4: Vector 2—Queue to Main Split/Skill with Announcement

Step 1 queues calls to split 3 at medium priority. Step 2 delays vector processing for 12 seconds while callers hear ringback. Step 2 serves two purposes. First, it provides the same feedback (ringback) for every caller. Without this step, if a call has to wait in queue, different callers hear different feedback (depending on whether the call is internal or external and on the type of trunk on which the call arrives). Second, the 12-second wait interval gives agents in split 3 time to answer the call before the announcement plays (Step 3).

If the call is still in queue after the announcement plays, Step 4 provides music until the call is answered. Music is more appropriate than ringback for this “wait” command because ringback may confuse a caller after hearing an announcement.

Note To ensure that *CentreVu* CMS tracks calls in the vector until they are answered, Step 4 uses the maximum wait time of 998 seconds.

Vector 3—Multiple-Split/Skill Queuing

ACD splits are staffed to handle the average or typical amount of call traffic expected for a particular period of time. During periods of unexpectedly heavy call traffic, callers may have to wait too long for service, causing an increase in abandoned calls. One way to overcome this problem is to queue calls to one or more backup splits when callers have to wait for service from the main split.

Figure B-5 shows a vector that queues calls to a backup split if calls wait for approximately 30 seconds in the main split's queue.

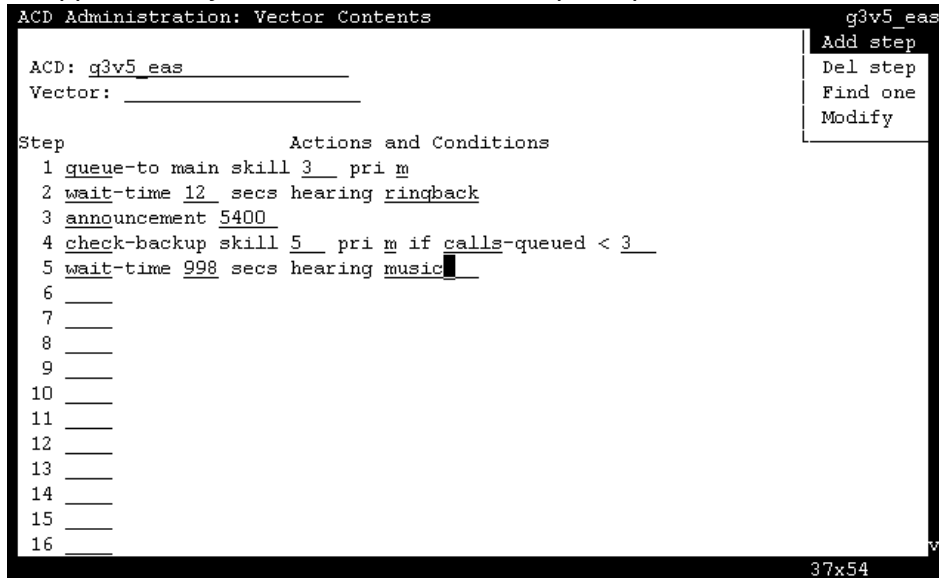


Figure B-5: Vector 3—Multiple-Split/Skill Queuing

Vector 3 adds a “check-backup split” command (Step 4) to Vector 2. Step 4 queues calls to backup split 5 if split 5 has fewer than three calls in queue at the specified priority or higher. That is, if a call waits in split 3’s queue for approximately 30 seconds (12-second wait interval plus the announcement play interval) and there are fewer than three calls in split 5’s queue, the call remains queued to split 3 and is also queued to split 5. The call remains queued to both splits 3 and 5 until it is answered or the caller hangs up (abandons the call).

Vector 4— Conditional Branching

Vectors 1 through 3 are examples of vectors that are processed sequentially. The steps in these vectors are processed in the same order that they appear in the vectors. Figure B-6 shows a vector that has conditional branches.

ACD Administration: Vector Contents

g3v5_eas

ACD: g3v5_eas

Vector: _____

Step	Actions and Conditions
1	<u>goto step 9</u> if <u>time-of-day</u> is <u>all</u> <u>5:00 PM</u> to <u>all</u> <u>6:00 PM</u>
2	<u>goto step 9</u> if <u>time-of-day</u> is <u>sat</u> <u>8:00 AM</u> to <u>mon</u> <u>8:00 AM</u>
3	<u>goto step 10</u> if <u>calls-queued</u> in <u>skill 3</u> <u>pri m</u> <u>></u> <u>19</u>
4	<u>queue-to main skill 3</u> <u>pri m</u>
5	<u>wait-time 12</u> <u>secs</u> hearing <u>ringback</u>
6	<u>announcement 5400</u>
7	<u>wait-time 998</u> <u>secs</u> hearing <u>music</u>
8	<u>stop</u>
9	<u>disconnect after announcement 4200</u>
10	<u>busy</u>
11	_____
12	_____
13	_____
14	_____
15	_____
16	_____

37x66

Figure B-6: Vector 4—Conditional Branching

Steps 1 and 2 test for time of day and day of week. Between 08:00 (8:00AM) and 17:00 (5:00PM) Monday through Friday, Steps 3 through 7 are processed. Steps 3 through 7, which provide normal business-hours call treatment, are the same as Vector 2. After business hours, between 17:00 and 08:00 Monday through Friday and between 08:00 Saturday and 08:00 Monday, vector processing branches to Step 9 which plays an announcement and disconnects the call. This announcement would probably ask callers to call back during business hours.

Step 3 tests split 3 for the number of queued calls. The “calls-queued” condition for this step is set to the administered queue length for split 3. Consequently, when split 3’s queue is full, vector processing branches to Step 10 which gives the caller a busy tone.

Step 8, the “stop” command, separates business-hours treatment from after-hours treatment. Without this step, calls that are queued for more than approximately 988 seconds would be disconnected. With Step 8, calls can only reach Step 9 or Step 10 if the condition specified in Step 1, 2, or 3 is met.

Vector 5—Repeating
Delay
Announcement

Figure B-7 shows a vector with a repeating delay announcement.

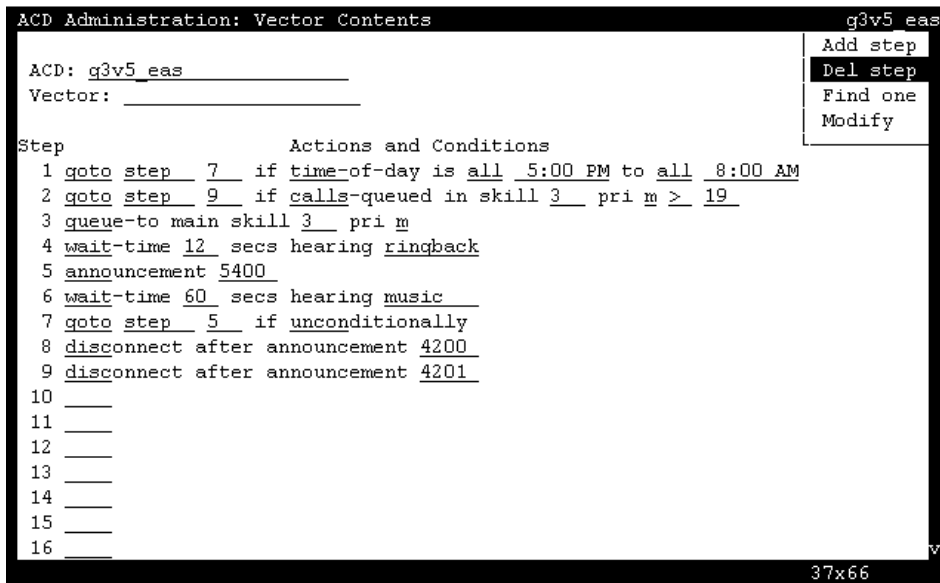


Figure B-7: Vector 5—Repeating Delay Announcement

Vector 5 is similar to Vector 4 except Step 7 has been changed from a “stop” command to an unconditional “goto step” command, and the wait interval in Step 6 has been changed to 60 seconds. Step 7 causes vector processing to branch to Step 5 unconditionally, creating a loop that repeats Steps 5 through 7 until the call is answered or the caller abandons the call.

This vector does not require a “stop” command, because Step 7 always directs vector processing back to Step 5 and calls cannot “escape” from this loop. Calls can only reach Step 8 or Step 9 if the condition specified in Step 1 or Step 2 is met.

Call Prompting

The Call Prompting feature provides flexible call handling based on information collected from a caller. Call Prompting uses special vector commands to collect caller-entered touch-tone digits (or network-provided digits, in the case of the *DEFINITY* ECS with the CINFO option and ISDN PRI) and uses the collected digits to determine call treatment.

The following descriptions provide information about VDNs, vectors, and other vector commands. If the switch has the Call Vectoring or Call Prompting features, the *CentreVu* CMS must have the Vectoring feature.

Vector Commands

Call Prompting adds the following vector commands:

- collect digits
- route-to digits.

Call Prompting adds the “if digits” condition to the following vector commands:

- goto step
- goto vector
- route-to number.

The “Collect Digits” Command

This command collects and stores from one to as many as 16 touch-tone digits entered by a caller. The “collect digits” command can also specify an announcement, which explains the caller's digit-entry options and the purpose of each option. The “collect digits” command has the following format:

collect xx digits after announcement xxxxxx

The caller may start entering digits while the announcement is playing or up to 10 seconds after the announcement stops. Once digit entry starts, the caller has up to 10 seconds to enter each additional digit. If the caller does not enter a digit within 10 seconds, digit collection stops (whether digit entry is complete or not) and the next step in the vector is processed. If the caller begins entering digits while the announcement is playing, the announcement stops.

If the caller makes a mistake while entering digits, entering an asterisk (*) erases the entered digits and restarts the digit collection process. The announcement does not play again when the digit collection process is restarted.

See the Callvisor Adjunct/Switch Application Interface (ASAI) description in this appendix for an example of a vector that uses the “collect digits” command to send caller-entered digits to an adjunct processor or host computer. Collected digits are also sent to a station with display capabilities.

Variable-Length Digit Strings

When the number of digits the caller could enter varies, the “collect digits” command should specify the largest possible number of digits, and callers should be told to enter a pound sign (#) after the last digit. For example, the announcement could tell the caller to enter a 5-digit extension number or, for operator assistance, enter a zero followed by a pound sign. The “collect digits” command for this vector should specify five digits.

The pound sign tells the switch that the caller has finished entering digits. If the caller enters digits and a pound sign (or enters the number of digits specified in the command), the next step in the vector is processed immediately. If the caller does not enter the number of digits specified in the command and does not enter a pound sign, vector processing waits 10 seconds and then processes the next step in the vector.

Dialing Ahead

If the caller enters more than the number of digits specified for a “collect digits” command, the switch saves the additional digits for a later “collect digits” command. This allows frequent callers to dial ahead and avoid listening to one or more announcements. If the vector does not have another “collect digits” command, the extra digits are ignored.

The Announcement

The “collect digits” command can specify an extension number associated with an announcement. The announcement should explain the caller's digit-entry options and the purpose of each option. Furthermore, depending on how the vector is designed, the announcement may also include information for:

- Rotary telephone users
- Entering the pound sign (#) to stop digit collection
- Entering the asterisk (*) to erase entered digits and restart digit collection
- Dialing ahead.

Delays Associated with the “Collect Digits” Command

During periods of heavy call traffic, callers may have to wait for a touch-tone receiver (used to collect digits). The caller will not hear the “collect digits” announcement until a touch-tone receiver is available. Callers may also have to wait if an announcement port is not immediately available.

While waiting, the caller continues to hear the treatment (silence, music, or ringback) that was in effect before the “collect digits” command was processed. Therefore, it is a good idea to place a “wait 0 seconds with ringback” command before a “collect digits” command. See Vector 1 in the *Sample Vectors* section of this description.

For the *DEFINITY* ECS Only

For the *DEFINITY* ECS with the Vectoring (CINFO) option and ISDN PRI, the “collect digits” command can also have the following format:

collect xxxx digits

This command collects and stores any customer-entered digits (ced) or customer database-provided digits (cdpd) from a caller that are supplied in an ISDN PRI message for an incoming call. No announcement condition applies to the vector command in the case of these network-provided digits (referred to as Caller Information Forwarding, or CINFO).

The “Goto Step” Command

Call Prompting adds the “if digits” condition to the “goto step” command described in the Call Prompting section of this appendix. The “goto step” command has the following format:

- goto step xx if digits CM xxxxxxxxxxxxxxxxx

Vector processing branches to the specified step if the digits collected by the last “collect digits” command are equal to (=) the specified number. For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

In addition to the digits 0 through 9, for Generic 3 Version 4 and later switches the number you specify may contain the wild cards ? and + or the word “none.” A ? can be entered in any character position and matches any character in that single character position. A + must be entered as either the first or the last character and matches any or no characters. The word “none” can only be used with the not equal to (<>) and equal to (=) comparators. For example, the conditional “if digits = none” succeeds if the caller did not dial any digits.

If the digits specified in the “goto step” command do not match the digits collected by the last “collect digits” command, vector processing continues with the next step in the vector (branching does not occur). Calls remain in queue or continue to receive the treatment that was established before the “goto step” command.

- goto step **xx** if digits **in/not-in** table **xxx**

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Call Prompting options. Vector processing branches to the specified step if the collected digits are in or not in the specified vector routing table. Vector routing tables are administered on the ECS/switch and can contain as many as 100 entries. Each entry can contain as many as 16 characters including the wild cards ? and +.

See the The “Goto Step” Command description in this appendix for information about other “goto step” command conditions.

The “Goto Vector” Command

Call Prompting adds the “if digits” condition to the “goto vector” command described in The Call Vectoring Feature section of this appendix. The “goto vector” command has the following format:

- goto vector **xxx** if digits **CM xxxxxxxxxxxxxxxx**

Vector processing branches to Step 1 of the specified vector if the digits collected by the last “collect digits” command are equal to (=) the specified character string. For the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

The character string may contain as many as 16 characters, including the digits 0 through 9 and, for the ECS and Generic 3 Version 4 switches, the wild cards ? and + or the word “none.” A ? can be entered in any character position and matches any character in that single character position. A + must be entered as either the first or the last character and matches any or no characters. The word “none” can only be used with the equal to (=) and not equal to (<>) comparators. For example, the conditional “if digits = none” succeeds if the caller did not dial any digits.

Note

The number of possible matches should be restricted to avoid an excessive wait time and to avoid detrimental effect on switch processor occupancy.

If the digits specified in the “goto vector” command do not match the digits collected by the last “collect digits” command, vector processing continues with the next step in the vector (branching does not occur). Calls remain in queue or continue to receive the treatment that was established before the “goto vector” command.

- goto vector xxx if digits in/not-in table xxx

This vector command is available only with the ECS and Generic 3 Version 4 switches with the Vectoring (G3V4 Enhanced) and Call Prompting options. Vector processing branches to Step 1 of the specified vector if the digits collected by the last “collect digits” command are in or not in the specified vector routing table. Vector routing tables are administered on the switch and can contain as many as 100 entries. Each entry can contain as many as 16 characters including the wild cards ? and +.

See The “Goto Vector” Command description in this appendix for information about other “goto vector” command conditions.

The “Route-to Digits” Command

This command routes the call to the destination specified by the digits collected by the last “collect digits” command. The “route-to digits” command has the following format:

route-to digits with coverage y/n

The “route-to digits” command enables the switch to route a call based on caller-entered digits. The “with coverage” parameter specifies whether the Call Coverage feature applies to the routed call or not. Calls routed to internal extensions go to coverage if the “with coverage” parameter is set to y (yes) and the Call Coverage feature is assigned and applies. Calls routed to internal extensions do not go to coverage if the “with coverage” parameter is set to n (no).

If the “with coverage” parameter is set to y and the destination is an internal extension, vector processing stops as soon as the command is processed. If the destination is outside the switch or the “with coverage” parameter is set to n, vector processing stops if the call routes successfully; that is, if the switch connects the call to an internal station or attendant or seizes an outgoing trunk. Vector processing skips the “route-to digits” command and continues with the next step in the vector if the call does not route successfully or the last “collect digits” command collected no digits.

The “Route-to Number” Command

Call Prompting adds the “if digit” condition to the “route-to number” command described in the Call Vectoring section of this appendix. This command routes a call to the specified destination if the digit specified in the “if digit” condition is equal to (=) the digit collected by the last “collect digits” command. For Generic 3 Version 4 and later switches with the Vectoring (G3V4 Enhanced) option, the allowed values for the comparator (**CM**) are: less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), not equal to (<>), and equal to (=).

The “route-to number” command has the following format:

route-to number xxxxxxxxxxxxxxxxxxx with cov y/n if digit **CM x**

The “with cov (coverage)” parameter is available only with the ECS and Generic 3 Version 4 switches.

Vector processing stops if the call is routed successfully. A successfully routed call is one in which the switch connects the call to an internal station or attendant or seizes an outgoing trunk.

Vector processing skips the “route-to number” command and continues with the next step in the vector if

- the call does not route successfully
- the last “collect digits” command collected more than one digit, collected no digits, or collected a digit that does not make the comparison operation true.

Note

The number of possible matches should be restricted to avoid an excessive wait time and to avoid detrimental effect on switch processor occupancy.

The “if digit” condition can only be used to route calls based on a single-digit comparison. A combination of “goto step” or “goto vector” and “route-to number” commands is required to route calls based on a multidigit comparison.

Sample Vectors

This section shows examples of Call Prompting vectors that can be administered using the Vector Contents window and describes how the vectors work. See Chapter 6, “ACD Administration,” for information about how to use the Vector Contents window to add a new vector or to copy, modify, or delete the contents of an existing vector.

Vector 1— Automated Attendant

Figure B-8 shows a vector that routes incoming calls to the desired destination without attendant assistance.

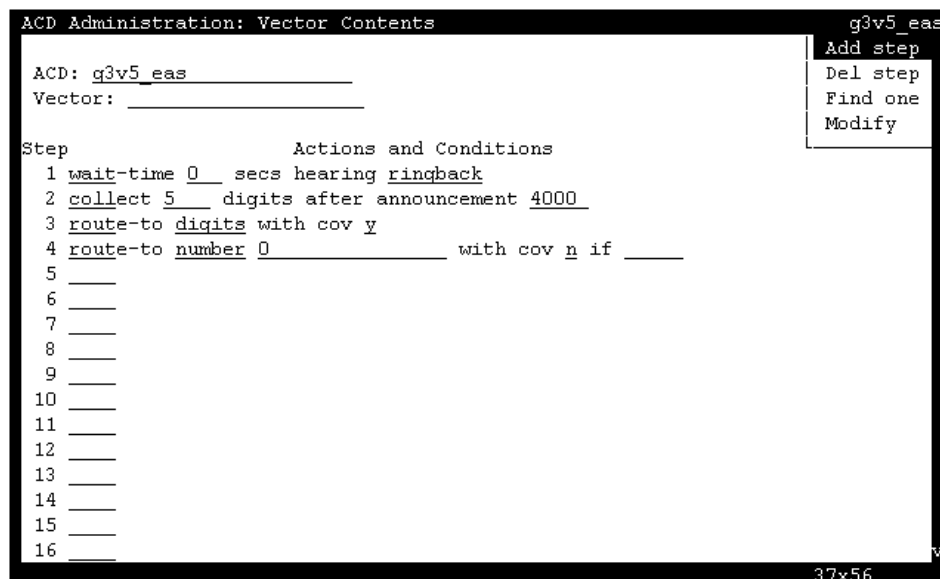


Figure B-8: Vector 1—Automated Attendant

Step 1 provides caller feedback in case a touch-tone register to collect caller-entered digits or the announcement specified in Step 2 is not immediately available. Step 2 plays an announcement and then collects up to five touch-tone digits from the caller. The announcement tells callers to enter the 5-digit extension of the person they want to talk to or to wait for an attendant.

Step 3 routes the call to the destination specified by the digits that were collected in Step 2. Because the coverage parameter is set to yes, if assigned to the destination extension, Call Coverage applies. If the caller enters a valid extension (Step 2), vector processing ends as soon as Step 3 is processed. If the caller does not enter digits or enters an invalid extension, vector processing skips Step 3.

If Step 3 fails, Step 4 routes the call to a local attendant. Step 4 accommodates callers who do not have touch-tone service or who need information or assistance.

Vector 2—Leave Message Option

Figure B-9 shows a vector that gives callers the option of leaving a message or waiting to talk to a company representative.

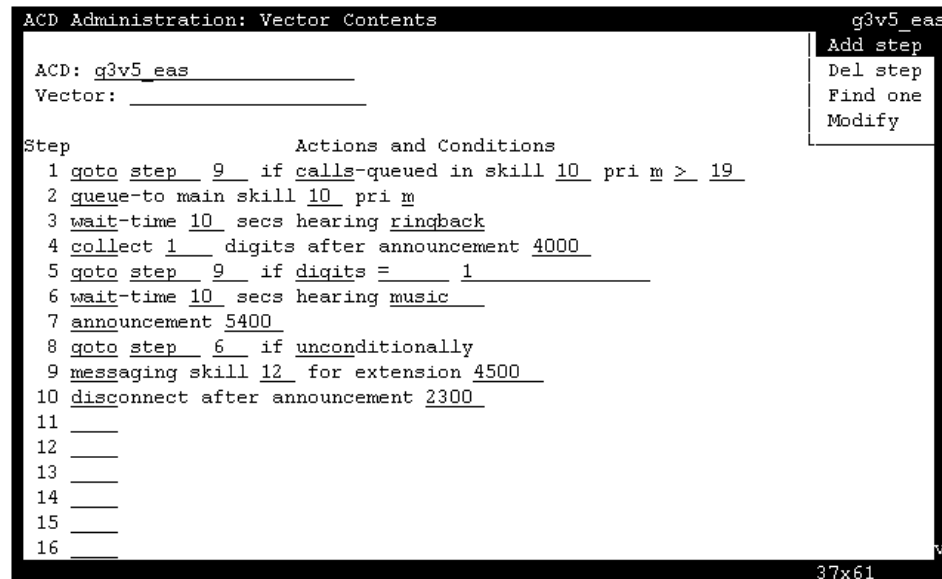


Figure B-9: Vector 2—Queue to Split/Skill With Option to Leave a Message

Step 1 tests split 10 for the number of queued calls. The “calls queued” condition for this step is set to the administered queue length for split 10. Consequently, when split 10’s queue is full, vector processing branches to Step 9 which allows the caller to leave a message.

Step 2 queues calls to main split 10 at medium priority, and Step 3 provides caller feedback if an agent is not immediately available. If a call remains in queue for 10 seconds, Step 4 plays an announcement and then collects caller-entered digits. The announcement might say, “A customer representative is not available. If you are using a touch-tone telephone and would like to leave a message, press the digit 1.”

Step 5 tests for caller-entered digits and vector processing branches to Step 9 if the caller entered the digit 1. If no digits were entered, or if a digit other than 1 was entered, Steps 6 through 8 are processed. These steps provide music and a repeating announcement while a call waits in queue.

Calls reach Step 9 if split 10’s queue is full (the condition specified in Step 1) or if the caller entered the digit 1 (Steps 4 and 5). Step 9 sends calls to a messaging split (either *AUDIX* or Message Center) so that callers can leave a message. If the messaging split command fails, Step 10 plays an announcement explaining that the messaging service is not available and disconnects the call.

Vector 3—ANI Routing

Figure B-10 shows a vector that routes calls based on the ANI associated with the call. This vector can be only created if the switch has the Vectoring (G3V4 Enhanced) and Vectoring (ANI/II-Digits Routing) options.

```

ACD Administration: Vector Contents
g3v5_eas
Add step
Del step
Find one
Modify

ACD: g3v5_eas
Vector:

Step          Actions and Conditions
1 goto step   7   if ani   =   none
2 goto vector 21  if ani   =   201+
3 goto vector 22  if ani   in  table 1
4 goto vector 23  if ani   in  table 2
5 goto vector 30  if unconditionally
6 wait-time 0   secs hearing ringback
7 collect 3     digits after announcement 10001
8 goto vector 30  if digits =   none
9 goto vector 21  if digits =   201+
10 goto vector 22  if digits in  table 1
11 goto vector 23  if digits in  table 2
12 goto vector 30  if unconditionally
13
14
15
16
37x53

```

Figure B-10: Vector 3—ANI Routing

Vector processing branches to Step 6 if no ANI is available for the call (Step 1). Steps 2 through 4 send calls to vectors 21 through 23 based on the ANI associated with the call. Vectors 21 through 23 queue calls to the appropriate ACD splits. The vector routing tables specified in Steps 3 and 4 contain lists of area codes, each followed by the wild card + (which matches any digits following the area code), like the area code specified in Step 2.

Vector processing only reaches Steps 6 and 7 if no ANI is available for the call (the condition specified in Step 1). Steps 6 and 7 provide caller feedback, play an announcement that prompts the caller to enter his or her area code, and collect any caller-entered digits. Steps 9 through 11 send calls to vectors 21 through 23 based on the area code the caller dialed.

Vector 30 (Steps 5, 8, and 12) queues calls to an ACD split in which agents handle calls from area codes that are not in the vector routing tables specified in Steps 3 and 4, if the caller cannot or will not dial an area code (Step 8), or if the area code the caller dialed is not in the vector routing tables specified in Steps 10 and 11.

Callvisor Adjunct/Switch Application Interface (ASAI)

The *Callvisor* ASAI feature is designed for large telemarketing or call-center operations that require optimum efficiency in managing high volumes of incoming and outgoing calls as well as call transfers and conferences. It provides an Integrated Services Digital Network (ISDN)-based interface between the ECS or the *DEFINITY* Generic 3 Communication System and one or more adjunct processors or host computers. The *Callvisor* ASAI feature enables the adjunct/host to initiate, receive, and control calls or stations on behalf of ACD agents or other switch users.

Callvisor ASAI Applications

The following are a few of the many *Callvisor* ASAI applications.

- Data Screen Delivery

The switch can pass network information such as Automatic Number Identification (ANI) and Dialed Number Identification Service (DNIS) and switch information such as caller-entered or network-provided digits collected by the Call Prompting feature and agent extension numbers to an adjunct/host. The adjunct/host uses this information to display the proper data-terminal screen at the agent position.

- Data Screen Transfer

The switch can notify an adjunct/host when a voice call is transferred. This enables the adjunct/host to transfer the corresponding data-terminal screen with the voice call.

- Adjunct Routing

If the switch has the Call Vectoring feature, a vector can be set up to send network or switch information to an adjunct/host and request call-routing information from the adjunct/host (see the sample *Callvisor* ASAI vector presented later in this description). The adjunct/host responds with an internal or external number.

- Direct Agent Calling

The adjunct/host can route or transfer an incoming or outgoing call to a specific agent, and CMS tracks the call as an ACD call.

- Supervisor Assist

If requested by an agent, the adjunct/host can initiate a call (tell the switch to place a call) to a split supervisor. *CentreVu* CMS tracks the call as a supervisor-assist call.

- Voice Processor Integration

The switch can send ANI, DNIS, or selected-agent information to a speech-processing adjunct. The speech processor can integrate this information with information the speech processor collects and send it to the adjunct/host for data-screen delivery or call routing.

- ViewFirst Dialing

The adjunct/host can initiate a call on behalf of an agent. The agent may have previewed a data-terminal screen and used the data-terminal keyboard to tell the adjunct/host to begin the call.

- AutoPace Dialing

The adjunct/host can initiate calls on behalf of a group of agents. The switch classifies calls, notifies the adjunct/host of each classification, and sends only answered calls to the agents.

- Agent Work Mode Control

The adjunct/host can log agents into and out of splits and change agent work modes.

Sample *Callvisor* ASAI Vector

Figure B-11 shows an example of a vector that sends call-related information to an ASAI adjunct processor and requests routing information from the adjunct.

The screenshot displays the 'ACD Administration: Vector Contents' window. At the top right, there is a dropdown menu with the selected option 'g3v5_eas'. Below this, there are two input fields: 'ACD: g3v5_eas' and 'Vector:'. The main area of the window is a table with two columns: 'Step' and 'Actions and Conditions'. The table contains five rows of data, followed by empty rows for steps 6 through 16. A context menu is visible on the right side of the table, with options: 'Add step', 'Del step', 'Find one', and 'Modify'. The bottom right corner of the window shows the dimensions '37x56'.

Step	Actions and Conditions
1	wait-time 0 secs hearing ringback
2	collect 5 digits after announcement 2500
3	adjunct routing link 3500
4	wait-time 10 secs hearing ringback
5	route-to number 5400 with cov n if
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

Figure B-11: *Callvisor* ASAI Vector

Step 1 provides caller feedback in case a touch-tone register to collect caller-entered digits or the announcement specified in Step 2 is not immediately available. Step 2 plays an announcement and then collects up to five touch-tone digits from the caller.

Step 3 sends the digits collected in Step 2 and incoming-call information to the adjunct/host. The adjunct/host uses this information (and possibly other information such as agent availability) to choose the appropriate destination. Then, the adjunct/host sends the selected destination to the switch.

The wait time in Step 4 specifies the amount of time the switch waits for a routing response from the adjunct/host. If the adjunct/host responds within 10 seconds, vector processing ends and the switch delivers the call to the adjunct/host-selected destination. If the adjunct/host does not respond within 10 seconds, vector processing continues with the next step in the vector.

Step 5 provides a backup destination in case the adjunct/host does not respond within 10 seconds. This backup destination could be a VDN associated with a vector that provides the appropriate call treatment.

Look Ahead Interflow

The Look Ahead Interflow feature enables ACD calls to be intelligently interflowed (redirected) from one switch to another. Two switches with the Call Vectoring and ISDN—PRI features (in addition to Look Ahead Interflow) can “talk” to each other and determine if conditions are appropriate for interflowing a call. If conditions at the switch that would receive the call are not acceptable, the interflow request can be rejected.

The interflow capability has been available for several years, but before Look Ahead Interflow was introduced, the decision to interflow a call could be based only on conditions at the sending switch (the switch at which the call is currently queued). This could result in a call interflowing from a busy split to an even busier split.

With Look Ahead Interflow, the decision to interflow a call (at the sending switch) and to accept or reject the call (at the receiving switch) can be based on any combination of the following conditions:

- EWT
- Rolling ASA
- Time of day
- Day of week
- Counted calls
- Number of calls in queue
- Time the oldest call in queue has waited
- Number of staffed agents
- Number of available agents.

One or more conditional “goto step” commands in the sending vector determine if conditions are appropriate for interflowing a call. If conditions are appropriate, the sending switch queries the receiving switch to determine if it can accept the call.

Like the sending vector, the receiving vector contains one or more conditional “goto step” commands that determine if conditions are appropriate for accepting a call. If conditions are appropriate, the receiving vector accepts the interflow request and the sending vector routes the call to the receiving switch. If conditions are not appropriate, the receiving vector rejects the interflow request and processing continues at the sending vector.

The sending vector uses a “route-to number” command to interflow calls to the receiving switch. The destination of the “route-to number” command is the private-network telephone number of the receiving switch.

To accommodate the rejection of an interflow request, the sending vector should provide alternate call treatment such as an information announcement or a message-taking service.

Sample Look Ahead Interflow Vectors

The following example describes how a company might use the Look Ahead Interflow feature to ensure that calls get answered as quickly as possible during peak calling periods.

Figure B-12 shows a Look Ahead Interflow sending vector.

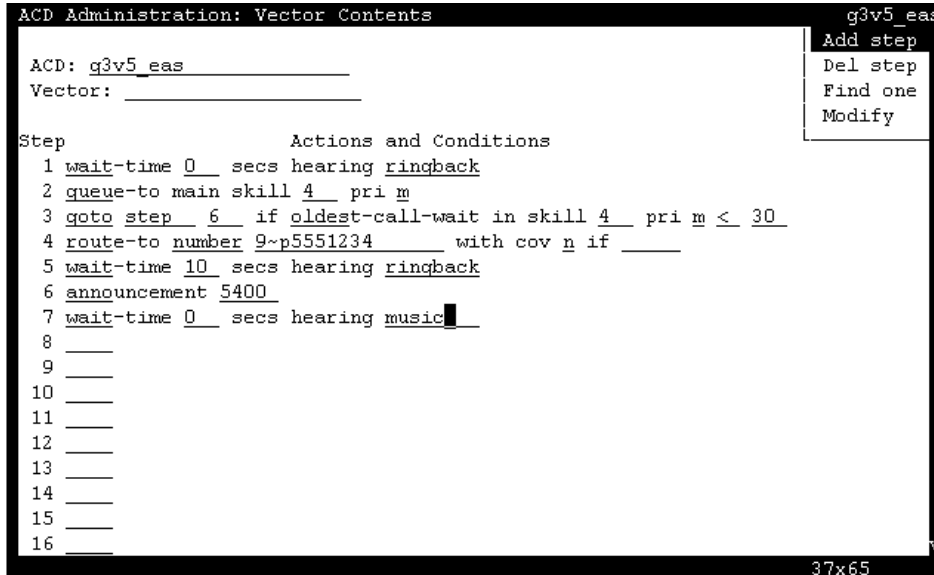


Figure B-12: Look Ahead Interflow Sending Vector

Steps 1 and 2 provide caller feedback (ringback) and queue calls to split 4 at medium priority.

Step 3 tests split 4 and branches to Step 5 if the oldest call has waited less than 30 seconds. Steps 5 through 7 provide a 10-second delay, an announcement, and music (the normal processing for calls waiting in split 4's queue).

If the oldest call in split 4's queue has waited 30 seconds or more (the condition specified in Step 3 is not met), Step 4 queries the receiving vector to determine if it can accept the call and, if accepted, interflows the call.

Figure B-13 shows a Look Ahead Interflow receiving vector.

ACD Administration: Vector Contents

g3v5_eas

ACD: g3v5_eas

Vector: _____

g3v5_eas

Add step

Del step

Find one

Modify

Step	Actions and Conditions
1	<u>goto step 9</u> if <u>staffed-agents</u> in <u>skill 2</u> < <u>1</u>
2	<u>goto step 9</u> if <u>oldest-call-wait</u> in <u>skill 2</u> <u>pri m</u> > <u>10</u>
3	<u>goto step 9</u> if <u>calls-queued</u> in <u>skill 2</u> <u>pri m</u> > <u>19</u>
4	<u>queue-to main skill 2</u> <u>pri h</u>
5	<u>wait-time 12</u> <u>secs</u> <u>hearing ringback</u>
6	<u>announcement 5400</u>
7	<u>wait-time 20</u> <u>secs</u> <u>hearing music</u>
8	<u>goto step 6</u> if <u>unconditionally</u>
9	<u>busy</u>
10	_____
11	_____
12	_____
13	_____
14	_____
15	_____
16	_____

37x65

Figure B-13: Look Ahead Interflow Receiving Vector

Steps 1, 2, and 3 test split 2 and branch to Step 9 if the specified conditions are met. That is, interflow requests are rejected (Step 9) if split 2 is unstaffed, if the oldest call in queue has waited more than 5 seconds, or if more than 19 calls are in queue. The “calls queued” condition in Step 3 is set to the administered queue length for split 2. Consequently, when split 2’s queue is full, interflow requests are rejected.

If the conditions specified in Steps 1 through 3 are not met, Step 4 accepts the call and queues it to split 2 at high priority. Step 5 delays vector processing for 12 seconds while callers hear ringback. This gives the agents in split 2 time to answer the call before the delay announcement plays (Step 6). Steps 6 through 8 provide music and a repeating delay announcement.

Step 9 rejects interflow requests. Vector processing branches to this step if split 2 is unstaffed, if the oldest call in queue has waited more than 5 seconds, or if the more than 19 calls are in queue (the conditions specified in Steps 1 through 3).

Information *CentreVu* CMS Collects for the Look Ahead Interflow Feature

For Generic 3 switches, *CentreVu* CMS uses the **LOOKATTEMPTS** and **LOOKFLOWCALLS** database items (in the VDN and vector database tables) to collect information about the Look Ahead Interflow feature.

These database items do not appear on any standard *CentreVu* CMS report, but you can create a custom report with these items.

LOOKATTEMPTS are: Look Ahead Interflow requests that are accepted by the receiving switch, Look Ahead Interflow requests that are rejected by the receiving switch, and unsuccessful routing attempts (a “route-to-number” command that fails because, for example, no trunk is available). LOOKFLOWCALLS are Look Ahead Interflow calls that route successfully.

Appendix C

Call Vectoring and Related Generic 2 Features

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General Information

Audience

Appendix C is written for the *CentreVu*™ Call Management System (*CentreVu* CMS) administrator and users who need a general understanding of Call Vectoring and related features on the *DEFINITY*® Communications System Generic 2 and System 85 switches.

Introduction

This appendix gives an overview of the Call Vectoring and Look Ahead Interflow features on the *DEFINITY* Communications System Generic 2 and System 85 switches and shows examples of vectors that can be administered using the Vectoring feature of *CentreVu* CMS Release 3 Version 5 (R3V5). The Vectoring feature of *CentreVu* CMS enables CMS to work with Call Vectoring and Look Ahead Interflow.

Note

You must have the Call Vectoring feature to use the Expert Agent Selection (EAS) feature. **If EAS is administered on the switch, the word skill replaces the word split when administering vectors from CentreVu CMS.** See Appendix D, “Expert Agent Selection and *CentreVu* CMS,” for information about the Expert Agent Selection feature.

With the Vectoring feature of the *CentreVu* CMS, you can:

- Administer vectors and other aspects of the Call Vectoring feature from *CentreVu* CMS.
- Generate reports about vectors and Vector Directory Numbers (VDNs).

The *CentreVu* CMS Vectoring feature is not part of the standard *CentreVu* CMS software; it must be purchased separately. Like *CentreVu* CMS Vectoring, Call Vectoring and Look Ahead Interflow are not standard System 85/Generic 2 switch features; they must be purchased separately.

To use the *CentreVu* CMS Vectoring feature, the Call Vectoring feature **must** be administered on the switch. Call Vectoring must be administered on the switch to use the Look Ahead Interflow feature. *CentreVu* CMS Vectoring is **not** required for the Look Ahead Interflow feature unless you want to administer vectors from *CentreVu* CMS.

For more detailed information about the Call Vectoring and Look Ahead Interflow features, read the feature descriptions in the product documentation that came with your switch.

The Call Vectoring Feature

Vectors and VDNs

Call Vectoring is a highly flexible way of processing incoming ACD and non-ACD calls. Software components called vectors and Vector Directory Numbers (VDNs) provide this capability.

Vectors

A **vector** is a set of commands that specifies the treatment for specific incoming calls. Call treatment includes: queuing calls to ACD splits/skills, giving caller feedback (such as ringback or music), checking the status of backup splits/skills if calls cannot be answered immediately, playing announcements, routing calls to internal or external destinations, and more. This treatment can change automatically based on time of day and day of week, how long a call has waited, or changing traffic or staffing conditions. Standard *CentreVu* CMS reports can be used to track vector-related call processing.

A vector can be created in *CentreVu* CMS using the ACD Administration: Vector Contents window (see Chapter 6, “ACD Administration”). As shown in Figure C-1, a vector may have as many as 15 commands administered as vector steps.

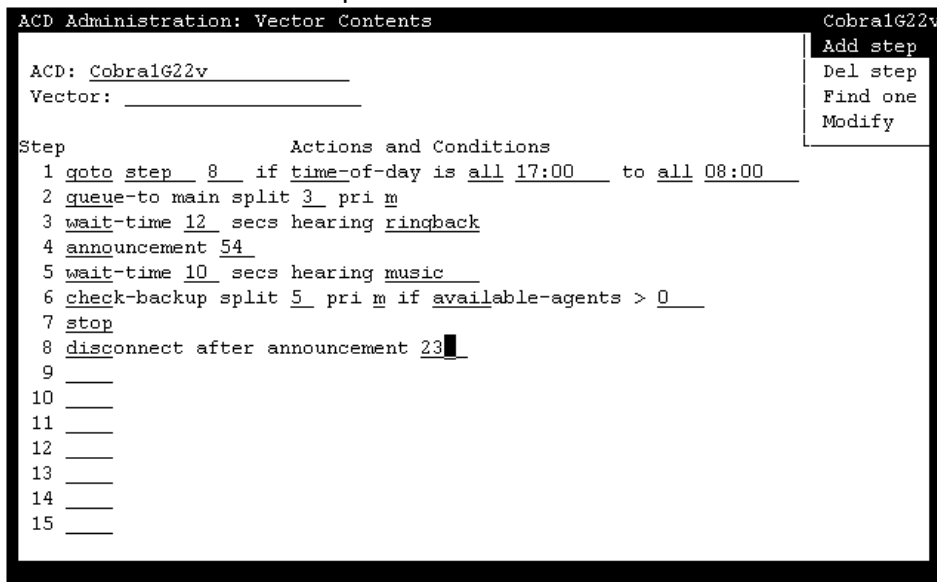


Figure C-1: *CentreVu* CMS Vector Contents Window With Sample Vector

You can also create a vector with one of the following switch administration tools:

- On a System 85 switch, the Maintenance and Administration Panel (MAAP), the Visual Maintenance and Administration Panel (VMAAP), the System Management Terminal (SMT), or Centralized System Management (CSM).
- On a Generic 2 switch, the *DEFINITY* Manager II, III, or IV.

VDNs

A **VDN** is a special extension number that provides access to a vector. A VDN is also called a “soft” extension number because, unlike a regular extension number, no hardware is assigned to a VDN. Standard *CentreVu* CMS reports can be used to track calls to VDNs by type and purpose.

Calls reach a vector in one of the following ways:

- **Through a Direct Inward Dial (DID) Trunk Group and a VDN**

For a call on a Direct Inward Dial (DID) trunk group, the digits the network terminating office passes to the *DEFINITY* switch are administered on the switch as a VDN. The switch processes the digits immediately or adds or deletes digits as needed. Then the switch connects the trunk to the vector assigned to the VDN. Thus, for DID trunk groups, the digits sent by the network terminating office **are** the VDN, plus or minus a digit.

- **Through the Public Network and a VDN**

For public network free call and billed (such as 1-900) services using public network incoming trunk groups, the public network assigns Dialed Number Identification Service (DNIS) digits to the call. The network passes the DNIS digits to the switch over a DID trunk group. These same digits are assigned in the switch as a VDN. When the switch receives the DNIS digits, it recognizes them as a VDN and connects the call to the assigned vector. Therefore, the DNIS digits outputted by the network terminating office must match the VDN administered in the switch. The actual number entered by the customer does not necessarily correspond to the digits sent by the network.

- **Through an Automatic-In Trunk Group and a VDN**

An automatic-in trunk group (also known as an attendant-completing trunk group) is assigned to send calls to a specific VDN. When a call is placed to that trunk group's phone number, the Central Office (CO) seizes a trunk to the switch. The switch then connects the call to the VDN to which the trunk group is assigned and the vector

associated with the VDN begins processing the call. Thus, for automatic-in trunk groups, the number dialed by the caller may not have the same final digits as the VDN.

- **Through an Internally Dialed VDN**

Like dialing an internal extension, a VDN may be dialed from a voice terminal connected to the switch. In this case, only the VDN digits are dialed. The call is processed by the vector to which the VDN is assigned.

VDNs can be reassigned to different vectors or deactivated while still being retained in memory on the switch.

Vector Control of ACD Calls

On a System 85/Generic 2 switch with the ACD and Call Vectoring features, all ACD calls are processed by vectors. Call-treatment parameters that were assigned on a split basis (for ACD without Call Vectoring) are assigned on a VDN or vector basis. Instead of being assigned to a particular split, call treatments such as announcements, wait times, intraflow, and interflow are specified within vectors. See Figure C-2.

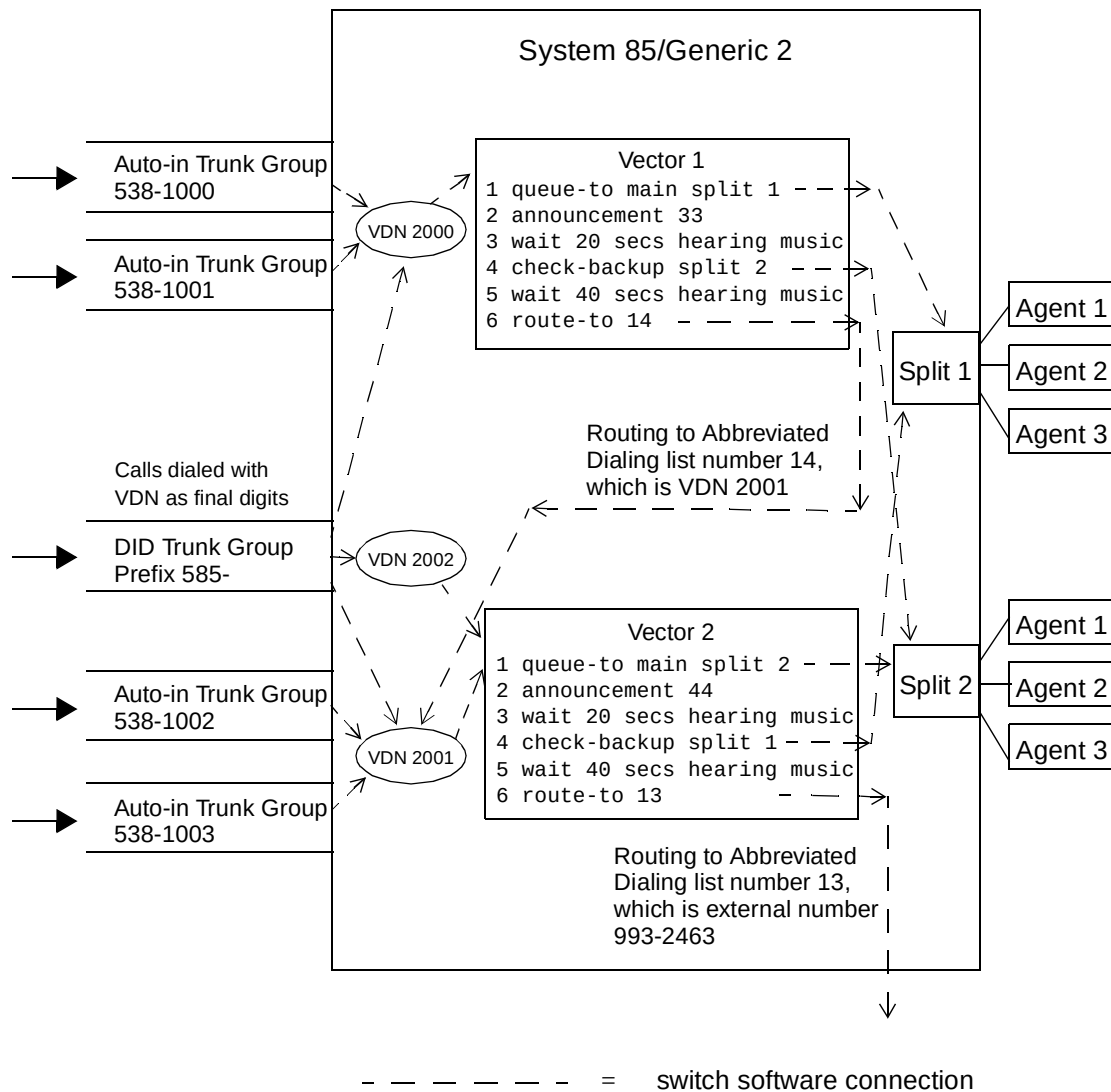


Figure C-2: System 85/Generic 2 Configuration for ACD with Call Vectoring

Answer Supervision in a Vectoring Environment

Answer supervision is a signal sent from the switch to the serving Central Office (CO) that tells the CO to begin recording toll charges for a call, if toll charges apply. Lucent ACD software can delay sending answer supervision, while a call waits in a split/skill queue, so that the ACD owner/operator or caller can avoid excess toll charges.

With Call Vectoring, the desire to delay answer supervision can influence the choice and order of call treatments specified in a vector. Answer supervision is sent when a call is answered or when the caller hears a recorded announcement or music. Answer supervision is also sent when a call is disconnected (except with ISDN trunks).

The type of incoming trunk also influences when answer supervision is sent. For an auto-in trunk, a wait step with silence triggers answer supervision for the call. However, for a dial-repeating trunk, a wait step with silence does *not* trigger answer supervision. Therefore, when trunk routing to a vector (via the VDN) is changed, the effect on answer supervision should be considered. See the description of the “wait” command in this appendix.

Caller Feedback

The feedback a caller hears while a call is being processed by a vector depends on how the call originated.

For internal and non-CO (DID, DNIS, Megacom, and dial-repeating tie trunks) calls, the calling party hears silence until one of the following occurs:

- A “wait” command with music or ringback is processed.
- An announcement is played.
- A “busy” command is processed.
- The call is sent to an answering position, and the telephone begins to ring (alert).

For CO (automatic-in trunks) calls, the calling party hears CO ringback until one of the following occurs:

- An announcement is played.
- A “wait” command with music is processed.
- The call is answered.

See the Sample Vectors section of this description for examples of vectors that provide caller feedback.

How Vectors Are Processed

The Call Vectoring software on the switch processes the commands in a vector (administered as vector steps) sequentially. That is, Step 1 is processed first, Step 2 second, and so forth. The “goto step” and “goto vector” commands are exceptions. These commands provide conditional or unconditional branching (movement) to a step other than the next sequential step.

Conditional branching means that a vector command specifies a condition that must be met before the command is executed. If the specified condition is not met, vector processing skips the command and processes the next vector step (branching does not occur). If the specified condition is met, vector processing branches to the step (in the same vector) or to the vector specified in the command.

Unconditional branching means that branching always occurs. You can use unconditional branching, for example, to repeat the vector commands that play a recorded announcement while calls wait in queue.

Conditional branching allows the Call Vectoring feature to change a call's treatment automatically and dynamically based on one or more of the following conditions:

- Time of day
- Day of week
- Number of calls in queue
- Time the oldest call in queue has waited
- Number of staffed agents
- Number of available agents.

For example, a vector can be set up to give different call treatments based on time of day and day of week. During normal business hours, calls may be queued to an ACD split. After business hours, the same vector may play an announcement and disconnect calls or direct calls to a voice-mail or messaging system. A vector can also be set up to send calls to a different split if no agents are staffed or available in the original destination split.

For the *DEFINITY* Generic 2.2 switch with Enhanced ACD features and capabilities, the “goto vector” command can be used to chain two or more vectors together. This allows you to create a chain of vectors that has far more steps than the 15-step limit for a single vector.

Vector processing stops automatically after the last step in a vector is processed.

Vector Commands

A call vector is a set of as many as 15 vector commands. Vector commands specify the type of processing or treatment specific calls receive. Note that the following vector commands can be administered from *CentreVu* CMS only if the Call Vectoring feature has been purchased for both the switch and *CentreVu* CMS:

- announcement
- busy
- check-backup split
- disconnect
- goto step
- goto vector (Generic 2.2 switch with Enhanced ACD features and capabilities)
- queue-to main split
- route-to number
- stop
- wait.

The “Announcement” Command

This command plays the specified announcement. The “announcement” command has the following format:

announcement **xxx**

For System 85, *DEFINITY* Generic 2.1, and *DEFINITY* Generic 2.2 switches without Enhanced ACD features and capabilities, the range of announcement numbers is 16 through 99. For *DEFINITY* Generic 2.2 switches with Enhanced ACD features and capabilities, the range is 1 through 255.

If the call is in a split/skill queue, the call remains in queue while the announcement plays. After the announcement completes, if the call is still in queue, the caller hears silence until another “announcement” command, a “wait with ringback” command, or a “wait with music” command is processed. If the call connects to an agent’s terminal while the announcement is playing, the announcement stops and the caller hears ringback.

Answer supervision, if not previously sent, is sent at the beginning of an announcement.

After an “announcement” command is processed, the caller may not hear the announcement for several seconds. The reason is that each announcement plays only for calls currently queued to it, and once an

announcement starts playing, new calls that queue to the announcement must wait until it ends and begins again. The caller hears the previous treatment (if any) until the announcement starts.

The “Busy” Command

This command sends a busy signal and ends vector processing. The switch does not send answer supervision when this command is processed.

For DID-trunk calls, the busy signal is sent whether answer supervision has been sent or not. For auto-in trunk calls, if answer supervision has not been sent (by a previous vector command), the CO ignores the busy signal and continues giving the caller CO ringback. If the busy signal continues for 20 seconds, the switch sends answer supervision then disconnects the call (for non-ISDN calls).

The “Check-Backup Split” Command

While a call is queued to a main split/skill, this command checks the status of a backup split/skill for possible queuing of a call. The status of the backup split/skill can be checked for any of the following conditions:

- Number of available agents
- Number of staffed agents
- Number of queued calls
- Amount of time the oldest call in queue has waited.

The “check-backup split” command is always conditional and can specify only one of the conditions listed above. However, a vector may contain more than one “check-backup split” command.

If the condition specified in a “check-backup split” command is met, vector processing removes the call from the queue it is currently in and queues the call to the backup split/skill. If the condition is not met, the backup split/skill is checked every two seconds until:

- The specified condition is met, or
- The call is answered at the main split/skill, or
- A subsequent vector command (for example, a “route-to number” command) stops backup-split checking, or
- The caller abandons the call.

Note

Although it is unlikely, if none of the events listed above occurs before a “check-backup split” command is processed 1000 times (approximately 35 minutes), the switch disconnects the call.

The “check-backup split” command has the following format:

- check-backup split xx pri xxxx if available-agents > xxxx
Check the specified backup split/skill, and queue the call if the number of available agents is greater than (>) the specified number.
 - check-backup split xx pri xxxx if calls-queued < xxxx
Check the specified backup split/skill (for calls queued at the specified priority level or higher), and queue the call if the number of queued calls is less than (<) the specified number.
 - check-backup split xx pri xxxx if oldest-call-wait < xxxx
Check the specified backup split/skill (for calls queued at the specified priority level or higher), and queue the call if the oldest call in queue at the specified priority or higher has waited less than the specified number of seconds.
- Note**
- Calls will queue to a split/skill even if it is unstaffed. If an unstaffed split/skill that has no calls in queue is checked for oldest call wait time, the “check-backup split” command will always succeed and queue calls to the split/skill, no matter what wait time is specified.
- check-backup split xx pri xxxx if staffed-agents > xxxx
Check the specified backup split/skill, and queue the call if the number of staffed agents is greater than the specified number. Note, however, that staffed agents may currently be on ACD calls, in after-call-work, or in AUX work and, therefore, not available to take the call.

Whenever a “check-backup split” command checks for number of queued calls or oldest call wait time, the priority level specified in the command serves two purposes. It is used to check the status of the backup split/skill and, if the specified condition is met, to queue calls to the backup split/skill. When checking the status of the backup split/skill, only those calls queued at the specified priority level or higher are considered.

The “Disconnect” Command

This command disconnects the call the vector is processing. Any call treatment previously established by the vector ends and the call is removed from vector processing and from the switch. As an option, this command can specify an announcement that plays before a call is disconnected.

**Disconnect with
Announcement**

If a call is connected to an agent's terminal while the announcement is playing, the announcement stops and the caller hears ringback. Also, because vector processing stops when the call connects to the agent's terminal, the disconnect portion of the command is not processed.

If answer supervision has not already been sent, the switch sends answer supervision before the announcement plays.

**Disconnect Without
Announcement**

For incoming-trunk calls (except ISDN trunks), if answer supervision has not already been sent, the switch sends answer supervision before disconnecting a call. For ISDN trunks, answer supervision is not sent.

**The “Goto Step”
Command**

This command allows conditional or unconditional branching to a later or an earlier vector step. The conditions for branching are:

- Time of day and day of week
- Number of staffed agents
- Number of available agents
- Number of queued calls
- Amount of time the oldest call in queue has waited.

When a “goto step” command contains one of the conditions listed above, vector processing tests for that condition. If the test succeeds, vector processing continues at the step specified in the command. Calls remain in queue or continue to receive the treatment that was established before the “goto step” command. If the test fails, vector processing continues with the next step in the vector (branching does not occur).

The “goto step” command has the following format:

- goto step xx if available-agents in split xx ≤ (or >) xxxx

Vector processing branches to the specified step if the number of available agents in the specified split/skill is less than (or greater than) the specified number.

- goto step xx if calls-queued in split xx pri x ≤ (or >) xxxx

Vector processing branches to the specified step if the number of calls queued to the specified split/skill (at the specified priority level or higher) is less than (or greater than) the specified number.

- goto step xx if oldest-call-wait in split xx pri x ≤ (or >) xxxx

Vector processing branches to the specified step if the time (in seconds) that the oldest call has waited in the specified split/skill

queue (at the specified priority level or higher) is less than (or greater than) the specified time.

Note

A “goto step” command that tests for number of queued calls or oldest call wait time only considers calls queued at the specified priority level or higher. If calls are queued at low and higher priority levels, a “goto step” command should specify low priority to ensure that all calls in the specified queue are considered.

- goto step xx if staffed-agents in split xx $\leq$ (or $>$) xxxx

Vector processing branches to the specified step if the number of agents logged into the specified split/skill is less than (or greater than) the specified number. This command is often placed before a “queue-to main split” command to test whether a split/skill is staffed or not before queuing calls to the split/skill.

- goto step xx if time-of-day is xxx xx:xx xx to xxx xx:xx xx

Vector processing branches to the specified step if the test for time of day and day of week succeeds. This command is often used to provide alternate call treatment when an ACD split (or other answering destination) is unstaffed. Instead of specifying a range that includes every day of the week, you may enter **all** in the day-of-week blanks. For example, to branch to an alternate call treatment every day between 5:00 p.m. and 8:00 a.m., specify the following for the time-of-day and day-of-week portion of the “goto” command:

all 5:00PM to all 8:00AM

Note

The time may be specified as am/pm or in 24-hour notation. The equivalent of 8:00 a.m. in 24-hour notation is 08:00. The equivalent of 5:00 p.m. in 24-hour notation is 17:00.

- goto step xx if unconditionally

Vector processing always branches to the specified step in the vector. Unconditional branching is often used to create a loop by branching to an earlier step in the vector. One example of this type of loop is an announcement that repeats. Processing continues until the call is answered, the caller abandons, or the “goto step” command is processed 1000 times.

The “Goto Vector” Command

The “goto vector” command is available in *DEFINITY* Generic 2.2 switch with Enhanced ACD features and capabilities. This command allows conditional or unconditional branching to another vector. Vector

processing continues at Step 1 of the specified vector. The conditions for branching are:

- Time of day and day of week
- Number of staffed agents
- Number of available agents
- Number of queued calls
- Amount of time the oldest call in queue has waited.

When a “goto vector” command contains one of the conditions listed above, vector processing tests for that condition. If the test succeeds, vector processing continues at the vector specified in the command. Calls remain in queue or continue to receive the treatment that was established before the “goto vector” command, except backup-split scanning. Backup-split scanning (checking a backup split every two seconds based on the condition specified in the command) stops when a “goto vector” command is processed. If the test fails, vector processing continues with the next step in the vector (branching does not occur).

For all conditions except time of day and day of week, if the call is not queued, the test for the condition fails and vector processing continues with the next step in the vector.

The “goto vector” command has the following format:

- goto vector xxx if available-agents in split xx $\leq$ (or $>$) xxx

Vector processing branches to the specified vector if the number of available agents in the specified split/skill is less than (or greater than) the specified number.

- goto vector xxx if calls-queued in split xx pri x $\leq$ (or $>$) xxx

Vector processing branches to the specified vector if the number of calls queued to the specified split/skill (at the specified priority level or higher) is less than (or greater than) the specified number.

- goto vector xxx if oldest-call-wait in split xx pri x $\leq$ (or $>$) xxx

Vector processing branches to the specified vector if the time (in seconds) that the oldest call has waited in the specified split/skill queue (at the specified priority level or higher) is less than (or greater than) the specified time.

Note

A “goto vector” command that tests for number of queued calls or oldest call wait time only considers calls queued at the specified priority level or higher. If calls are queued at low and higher priority levels, a “goto vector” command should specify low priority to ensure that all calls in the specified queue are considered.

- goto vector xxx if staffed-agents in split xx ≤ (or >) xxx

Vector processing branches to the specified vector if the number of agents logged into the specified split/skill is less than (or greater than) the specified number.

- goto vector xxx if time-of-day is xxx xx:xx xx to xxx xx:xx xx

Vector processing branches to the specified vector if the test for time of day and day of week succeeds. This command is often used to provide alternate call treatment when an ACD split (or other answering destination) is unstaffed. Instead of specifying a range that includes every day of the week, you may enter **all** in the day-of-week blanks. For example, to branch to an alternate call treatment every day between 5:00 p.m. and 8:00 a.m., specify the following for the time-of-day and day-of-week portion of the “goto” command:

all 5:00PM to all 8:00AM

Note

The time may be specified as am/pm or in 24-hour notation. The equivalent of 8:00 a.m. in 24-hour notation is 08:00. The equivalent of 5:00 p.m. in 24-hour notation is 17:00.

- goto vector xxx if unconditionally

Vector processing always branches to the specified vector.

The “Queue-to Main Split” Command

This command queues calls to the specified split/skill at the specified priority level. The “queue-to main split” command has the following format:

queue-to main split xx pri xxxxxx

If no other calls are in queue and an agent is available, the call is immediately distributed to the agent. If other calls are in queue, the call remains in queue until:

- Calls ahead of it in queue are answered and an agent becomes available.
- The caller abandons (hangs up).
- A subsequent vector command causes the call to be removed from queue.

Priority levels are like layers of calls. All calls in one layer are served before any calls in the layer below are served. There are four levels of priority: low, medium, high, and top. Priority levels allow calls that arrive on different VDNs to be queued to the same split/skill at different priorities. This capability can be used to provide different levels of service for different call types.

A vector may contain more than one “queue-to main split” command. However, for System 85/Generic 2 switches, calls are not allowed to queue to more than one split at a time. Therefore, when vector processing encounters a second “queue-to main split” command, the call is removed from the first split's queue and queued to the split specified in the second command.



Calls will queue to a split/skill even if the split/skill is unstaffed. To prevent calls from queuing to an unstaffed split/skill, the vector should be set up to provide alternate treatment when the split/skill is unstaffed.

The “Route-to Number” Command

This command routes the call to the specified destination. The “route-to number” command has the following format:

route-to number xxx

The destination specified in the “route-to number” command (the x's in the command format shown above) is an Abbreviated Dialing (AD) group list item. For System 85, *DEFINITY* Generic 2.1, and *DEFINITY* Generic 2.2 switches without Enhanced ACD features and capabilities, the range of list item numbers for the AD group list is 1 through 95. For Generic 2.2 switches with Enhanced ACD features and capabilities, the range is: 1 through 95, 101 through 195, 201 through 295, 301 through 395, 401 through 495.

Because an AD group list item contains the destination number, the number can be changed from a voice terminal if, through switch administration, that voice terminal's extension is assigned as the “controlling extension.”

Vector processing skips a “route-to number” command and continues with the next step in the vector if:

- The list item specified in the “route-to number” command is empty (does not contain a destination number).
- The destination is a local extension and no call appearance is available.
- The destination is a VDN and the call would route to the same vector, or the VDN is not assigned to a vector.
- The destination is outside the switch and a trunk or Originating Register is not available, or the destination is not valid.

If the “route-to number” command is the last step in the vector or is followed by a “stop” step, vector processing treats the step as a “stop” step (for a VDN) or retries the step every 2 seconds (for a local extension or an outside destination).

If a call is queued to a split/skill when a “route-to number” command is processed, the call is removed from the split/skill queue if the routing succeeds.

The “Stop” Command

This command stops processing of subsequent vector steps. However, any previously established call treatment continues. That is, calls queued to a split/skill remain in queue, backup-split checking continues, retrying of “route-to number” destinations continues, and caller feedback specified by a “wait” command continues.

A typical use of the “stop” command is to separate a vector step that should only be reached by way of a “goto step” command from the rest of the vector. See Vector 4 in the Sample Vectors section of this appendix for an example of the “stop” command.

All *CentreVu* CMS vector tables stop receiving data when a “stop” command is processed. However, split/skill and VDN tables continue to receive data. Therefore, the call processing time shown in the vector reports can differ from the processing time in the VDN reports. Therefore, a wait command followed by a stop command should always specify a wait time of 998 seconds to ensure consistency of information on VDN, split/skill and vector reports.

The “Wait” Command

This command delays vector processing for a specific amount of time while callers hear silence, ringback, or music. The “wait” command has the following format:

wait-time xx secs hearing xxxxxx



The keyword matching capability is disabled in the “hearing xxxxxxxxxx” field. Therefore, you must type the entire word (music, silence, or ringback) in the field.

The allowed values for wait times are even numbers between 2 and 998 seconds. Beginning with Generic 2.2 switches, the allowed values are even numbers between 0 and 998 seconds. If a wait time of 0 seconds is specified, caller feedback and processing of the next vector command begin immediately. If not already returned for an incoming call, answer supervision is sent to the serving switch just before a “wait with music” command is processed.

Table C-1 describes the feedback an incoming-trunk caller receives for the different types of “wait” commands.

Table C-1: Caller Feedback for the Wait Command

Wait Type	Trunk Type	Disposition If Answer Supervision Has Not Been Sent	Disposition If Answer Supervision Has Been Sent
Silence	DID, DNIS, Megacom, dial-repeating tie trunks	Caller hears silence.	Caller hears silence.
	Automatic-in	Caller hears ringback from the Central Office (CO).	Caller hears silence.
Ringback	DID, DNIS, Megacom, dial-repeating tie trunks	Caller hears switch ringback.	Caller hears ringback.
	Automatic-in	Caller hears CO ringback.	Caller hears ringback.
Music	DID, DNIS, Megacom, dial-repeating tie trunks	Answer supervision is sent, and the caller hears music.	Caller hears music.
	Automatic-in	Answer supervision is sent, and the caller hears music.	Caller hears music.

For DID-trunk calls, callers hear silence, not ringback, until a “wait” command is processed. As a result, a caller might think the call did not get through. Therefore, for vectors that process DID-trunk calls, place a “wait with ringback,” a “wait with music,” or an “announcement” command early in the vector (perhaps after a “queue-to main split” command).

If a “wait” command is the last step in a vector (or is followed by a “stop” command), caller feedback continues beyond the specified wait interval until the call is answered or the caller abandons the call.

Note

If a “wait” command is the last step in a vector (or is followed by a “stop” command), the specified wait interval can affect the data *CentreVu* CMS collects for a vector. When the specified wait interval expires, the switch sends a message to *CentreVu* CMS indicating that processing of vector steps has finished. If the specified wait interval is short (for example, two seconds), the switch could send *CentreVu* CMS the message indicating that processing has finished before the call is answered.

Sample Vectors

This section shows examples of vectors that can be administered using the Vector Contents window and describes how the vectors work. See Chapter 6, “ACD Administration,” for information about how to use the Vector Contents window to add a new vector or to copy, modify, or delete the contents of an existing vector.

Vector 1—
Information
Announcement

The simplest vectors have only one step. Figure C-3 shows a vector that plays an announcement and then disconnects calls.

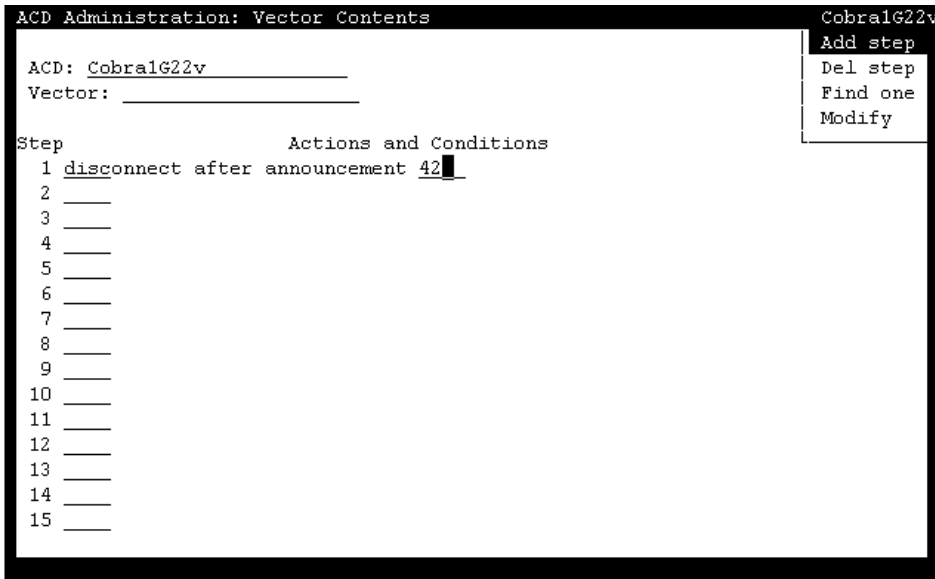


Figure C-3: Vector 1—Information Announcement

Vector 2—Queue-to Main Split with Announcement

Figure C-4 shows a simple vector that queues calls to an ACD split and plays an announcement if a call waits in queue for more than 12 seconds.

ACD Administration: Vector Contents

ACD: Cobra1G22v

Vector: _____

Step	Actions and Conditions
1	<u>queue-to main split 3 pri m</u>
2	<u>wait-time 12 secs hearing ringback</u>
3	<u>announcement 54</u>
4	_____
5	_____
6	_____
7	_____
8	_____
9	_____
10	_____
11	_____
12	_____
13	_____
14	_____
15	_____

Cobra1G22v

- Add step
- Del step
- Find one
- Modify

Figure C-4: Vector 2—Queue to Main Split with Announcement

Step 1 queues calls to split 3 at medium priority. Step 2 delays vector processing for 12 seconds while callers hear ringback. Step 2 serves two purposes. First, it provides the same feedback (ringback) for every caller. Without this step, if a call has to wait in queue, different callers hear different feedback (depending on whether the call is internal or external and the type of trunk on which the call arrives). Second, the 12-second wait interval gives agents in split 3 time to become available to answer a call before the announcement plays.

If a call is still in queue after 12 seconds, Step 3 plays an announcement which explains that all agents are busy and asks the caller to keep waiting.

Vector 3—Check Backup Split

ACD splits are usually staffed to handle the average or typical amount of call traffic expected for a particular period of time. During periods of unexpectedly heavy call traffic, callers may have to wait too long for service, causing an increase in abandoned calls. One way to overcome this problem is to check the status of one or more backup splits.

Figure C-5 shows a vector that checks a backup split if a call waits in the main split's queue for approximately 30 seconds (the sum of the wait times specified in Steps 2 and 4 and the time it takes to play announcement 54).

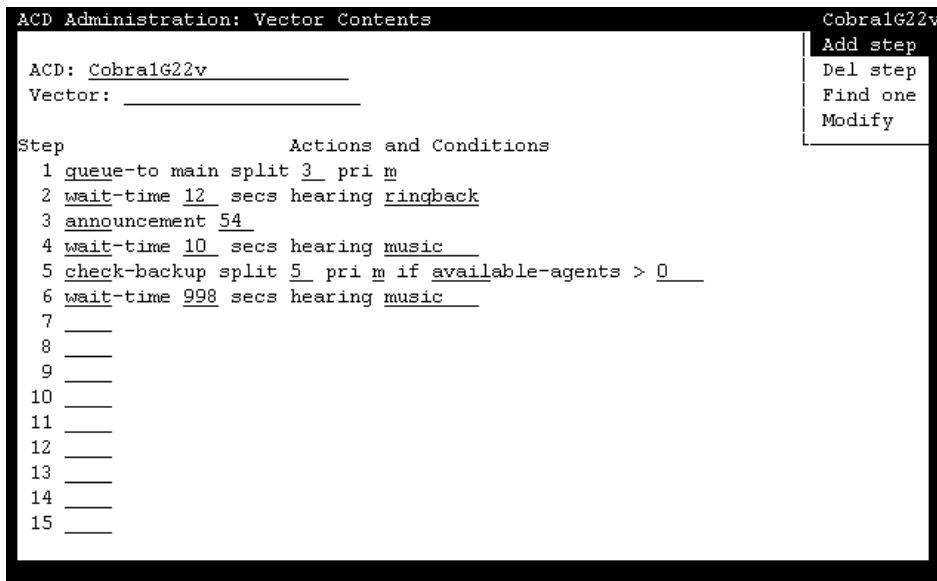


Figure C-5: Vector 3—Check Backup Split

Vector 3 adds “wait with music” commands and a “check-backup split” command to Vector 2 (Steps 1 through 3). Step 4 delays vector processing for 10 seconds while callers hear music. Music is more appropriate than ringback for this “wait” command because ringback may confuse a caller after hearing an announcement. The 10-second delay gives agents in the main split time to answer the call before the backup split is checked.

If a call is still unanswered after ten seconds, Step 5 checks backup split 5. If an agent in split 5 is available, the call is removed from split 3's queue (the main split) and queued to split 5 (the backup split) at medium priority. Because calls are only queued to split 5 if an agent is available, a call that reaches this vector step is immediately distributed to an agent.

Vector 4— Conditional Branching

Vectors 1 through 3 are examples of vectors that are processed sequentially. The steps in these vectors are processed in the same order as they appear in the vectors. Figure C-6 shows a vector that has a conditional branch.

ACD Administration: Vector Contents CobralG22v

ACD: CobralG22v

Vector: _____

Step	Actions and Conditions
1	goto step <u>10</u> if time-of-day is <u>all</u> <u>17:00</u> to <u>all</u> <u>08:00</u>
2	goto step <u>10</u> if time-of-day is <u>sat</u> <u>08:00</u> to <u>mon</u> <u>08:00</u>
3	queue-to main split <u>3</u> pri <u>m</u>
4	wait-time <u>12</u> secs hearing <u>ringback</u>
5	announcement <u>54</u>
6	wait-time <u>10</u> secs hearing <u>music</u>
7	check-backup split <u>5</u> pri <u>m</u> if available-agents > <u>0</u>
8	wait-time <u>998</u> secs hearing <u>music</u>
9	stop
10	disconnect after announcement <u>23</u>
11	_____
12	_____
13	_____
14	_____
15	_____

Add step
 Del step
 Find one
 Modify

Figure C-6: Vector 4—Conditional Branching

Vector 4 adds “goto step” commands (Steps 1 and 2), a “stop” command (Step 9), and a “disconnect after announcement” command (Step 10) to Vector 3 (Steps 3 through 8). Steps 1 and 2 test for time of day and day of week. Between 08:00 (8:00 AM) and 17:00 (5:00 PM) every day and between 08:00 Saturday and 08:00 Monday, the test fails and Steps 3 through 8 are processed. This provides treatment for the normal business hours. After 17:00 and before 08:00 every day, and between 08:00 Saturday and 08:00 Monday, the test succeeds and vector processing branches to Step 10 which plays an announcement and disconnects the call.

Step 9, the “stop” command, separates business-hours treatment from after-hours treatment. Without this step calls could reach Step 10 during business hours. With Step 9, calls can only reach Step 10 after business hours by way of the “goto step” commands (Steps 1 and 2).

Vector 5—Repeating
Delay
Announcement

Figure C-7 shows a vector with a repeating delay announcement.

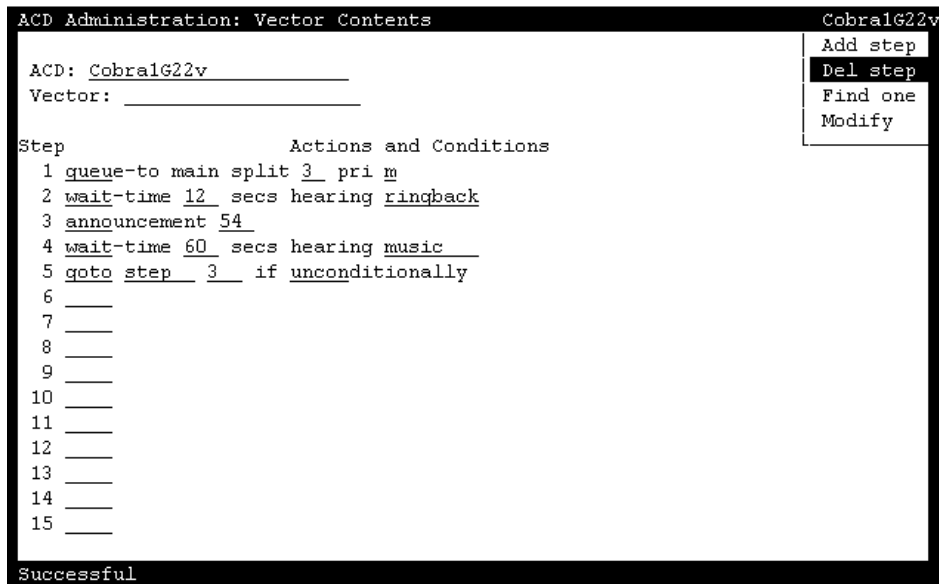


Figure C-7: Vector 5—Repeating Delay Announcement

Vector 5 adds a “wait with music” command (Step 4) and an unconditional “go-to step” command (Step 5) to Vector 2. Step 4 delays vector processing for 60 seconds while callers hear music. Step 5 causes vector processing to unconditionally branch to Step 3, creating a loop that repeats Steps 3 and 4 until the call is answered or the caller abandons the call.

The Look Ahead Interflow Feature

The Look Ahead Interflow feature enables ACD calls to be intelligently interflowed (redirected) from one switch to another. Two switches that have the Call Vectoring and ISDN—PRI features (in addition to Look Ahead Interflow) can “talk” to each other and determine if conditions are appropriate for interflowing a call. If conditions at the switch that would receive the call are not acceptable, the interflow request can be rejected.

The interflow capability has been available for several years, but before Look Ahead Interflow was introduced, the decision to interflow a call could be only based on conditions at the sending switch (the switch at which the call is currently queued). This could result in a call interflowing from a busy split to an even busier split.

With Look Ahead Interflow, the decision to interflow a call (at the sending switch) and to accept or reject the call (at the receiving switch) can be based on any combination of the following conditions:

- Time of day
- Day of week
- Number of calls in queue
- Time the oldest call in queue has waited
- Number of staffed agents
- Number of available agents.

One or more conditional “go-to step” commands in the sending vector determine if conditions are appropriate for interflowing a call. If conditions are appropriate, the sending switch queries the receiving switch to determine if it can accept the call.

As with the sending vector, the receiving vector contains one or more conditional “go-to step” commands that determine if conditions are appropriate for accepting a call. If conditions are appropriate, the receiving vector accepts the interflow request and the sending vector routes the call to the receiving switch. If conditions are not appropriate, the receiving vector rejects the interflow request and processing continues at the sending vector.

The sending vector uses a “route-to number” command to interflow calls to the receiving switch. The destination of the “route-to number” command is the private-network address of the receiving switch.

To accommodate the rejection of an interflow request, the sending vector should provide alternate call treatment such as an information announcement or a message-taking service.

Sample Look Ahead Interflow Vectors

Sending Vector

The following example describes how a company might use the Look Ahead Interflow feature to ensure that calls get answered as quickly as possible during peak calling periods.

Figure C-8 shows a Look Ahead Interflow sending vector.

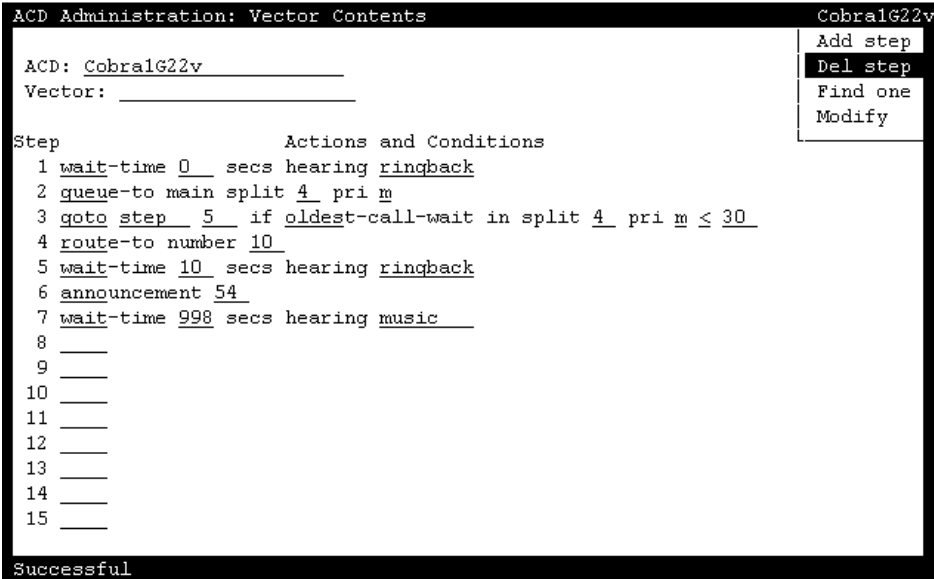


Figure C-8: Look Ahead Interflow Sending Vector

Steps 1 and 2 provide caller feedback (ringback) and queue calls to split 4 at medium priority. The 0-second wait interval is available beginning with Generic 2.2 switches.

Step 3 tests split 4 and branches to Step 5 if the oldest call has waited less than 30 seconds. Steps 5 through 7 provide a 10-second delay, an announcement, and music (the normal processing for calls waiting in split 4's queue).

If the oldest call in split 4's queue has waited 30 seconds or more (the condition specified in Step 3 is not met), Step 4 queries the receiving vector to determine if it can accept the call and, if accepted, interflows the call. The destination specified in the "route-to number" command (10) is the Abbreviated Dialing list item that contains the private-network address of the receiving switch.

Receiving Vector

Figure C-9 shows a Look Ahead Interflow receiving vector.

ACD Administration: Vector Contents Cobra1G22v

ACD: Cobra1G22v

Vector: _____

Step	Actions and Conditions
1	goto step 8 if staffed-agents in split 2 < 1
2	goto step 8 if oldest-call-wait in split 2 pri m > 5
3	queue-to main split 2 pri m
4	wait-time 12 secs hearing ringback
5	announcement 42
6	wait-time 20 secs hearing music
7	goto step 5 if unconditionally
8	busy
9	
10	
11	
12	
13	
14	
15	

Successful

Add step
 Del step
 Find one
 Modify

Figure C-9: Look Ahead Interflow Receiving Vector

Steps 1 and 2 test split 2 and branch to Step 8 if the specified conditions are met. That is, interflow requests are rejected (Step 8) if split 2 is unstaffed or if the oldest call in queue has waited more than 5 seconds. If the conditions specified in Steps 1 and 2 are not met, Step 3 accepts the interflowed call and queues it to split 2 at high priority.

Step 4 delays vector processing for 12 seconds while callers hear ringback. This gives the agents in split 2 time to answer the call before the delay announcement plays (Step 5). Steps 5 through 7 provide music and a repeating delay announcement.

Step 8 rejects the interflow request. Vector processing branches to this step only if split 2 is unstaffed or the oldest call in queue has waited more than 5 seconds (the conditions specified in Steps 1 and 2).

Information CentreVu CMS Collects for the Look Ahead Interflow Feature

For Generic 2.2 switches with Enhanced ACD features and capabilities, *CentreVu* CMS uses the **LOOKATTEMPTS** and **LOOKFLOWCALLS** database items (in the VDN and vector database tables) to collect information about the Look Ahead Interflow feature. These database items do not appear on any standard *CentreVu* CMS report, but you can create a custom report with these items.

LOOKATTEMPTS are: Look Ahead Interflow requests that are accepted by the receiving switch, Look Ahead Interflow requests that are rejected

by the receiving switch, and unsuccessful routing attempts (a “route-to number” command that fails because, for example, no trunk is available). LOOKFLOWCALLS are Look Ahead Interflow calls that route successfully.

For Generic 2.2 switches without Enhanced ACD features and capabilities, Generic 2.1 switches, and System 85 R2V4, *CentreVu* CMS collects information about Look Ahead Interflow calls in the **INTERFLOWCALLS** database item (in the split/skill database table). INTERFLOWCALLS are Look Ahead Interflow calls and other calls that are redirected to an off-switch destination.

Appendix D

***CentreVu* CMS and the Expert Agent Selection Feature**

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General Information

Audience

Appendix D is written for *CentreVu*™ Call Management System (*CentreVu* CMS) administrators and users who need a general understanding of the Expert Agent Selection (EAS) feature on the *DEFINITY*® Enterprise Communications Server (ECS) Release 5 and the *DEFINITY* System Generic 3 and Generic 2.2 switches.

Introduction

This appendix contains the following information:

- A description of the optional EAS-PHD feature and the advantages of using the *DEFINITY* ECS.
- A description of the optional EAS feature and the advantages of using the *DEFINITY* ECS, Generic 3, or Generic 2.2 switch.
- A description of the planning you should do for your call center before activating the EAS-PHD or EAS feature.
- A description of the *CentreVu* CMS and switch administration that should be completed prior to activating the EAS-PHD or EAS feature.
- Job aids to assist in planning an EAS-PHD or EAS call center.

DEFINITY ECS and Generic 3 EAS

EAS is an optional feature that builds on the power of the Call Vectoring and ACD features of the *DEFINITY* ECS or switch to meet caller needs by distributing calls to appropriate (or expert) agents.

With EAS, call distribution is based on **skill**. Caller needs are determined by the vector directory number called or by voice prompting, and an agent who has at least one of the skills that a caller requires is selected to handle the call. You assign skills and skill levels to agents to determine which types of calls go to which agents and to determine the order in which agents will serve waiting calls.

With EAS for the *DEFINITY* ECS, you have the option to base call distribution on greatest need instead of skill level. You can distribute the highest-priority, oldest call waiting to an agent with an appropriate skill, even if that skill is not the agent's highest-priority skill.

ACD queuing and the vector commands *Queue-to-Main* and *Check-Backup* are used to route a call to an agent with the appropriate skill to handle that call.

Note

For more detailed information about EAS or EAS-PHD on the ECS, see the *DEFINITY® ECS Release 5 Call Vectoring/EAS Guide* (555-230-521). For more detailed information about EAS on G3 switches, see the *DEFINITY® Communications System Generic 3 Call Vectoring/EAS Guide* (555-230-520).

For more information about the Call Vectoring feature, which is required for EAS, see the appropriate Call Vectoring appendix in this document.

Advantages to Your Call Center

Because you can match caller needs to an agent with appropriate skill(s) to handle the call, your call center can achieve the following:

- Maximum profitability.
- Greater customer satisfaction because the caller reaches (on the first call) an agent with the necessary skill(s) to handle the call.
- Greater responsiveness to customer needs for *DEFINITY* ECS with EAS because you can base call distribution on skill level or on greatest need.
- Improved agent performance and satisfaction because agents will handle calls they are most familiar (and most comfortable) with. Improved agent performance for the *DEFINITY* ECS with EAS

because supervisors have the option to have agents handle calls based on either skill level or greatest need. It also offers agents a challenge to learn new skills.

- Ability to track the number of calls handled by particular skills from the VDN perspective. You can see whether vectors are performing as expected.

Skill Definitions

It is important to understand the following skill definitions:

- **Skill** — A specific caller need or a business need of your call center. You define your skills based on the needs of your customers and your call center. You specify skills by skill numbers, which are assigned to agents and are referenced in vectors in order to match caller needs with an agent skilled to handle those needs.

Note

When configuring your call center for skills, a particular skill number always has the same meaning, whether it is an agent skill, VDN skill, or skill hunt group.

- **Agent Skill** — The type of call a particular agent can handle. With EAS, an agent can be assigned up to four skills each, with a primary (level 1) or a secondary (level 2) skill level. With EAS-PHD, an agent can be assigned as many as 20 skills with one of 16 skill levels.

- **Skill Level** — For each agent skill, a skill level can be assigned.

With EAS-PHD, skill levels can range from 1 to 16, with 1 being the highest skill level (also known as highest-priority skill).

Without EAS-PHD, skill levels can be defined as primary (level 1) or secondary (level 2), with primary being the highest-priority skill.

When calls are queued for more than one of the agent's skills and the agent's call-handling preference is by skill level, the agent will receive the oldest call waiting for the agent's highest level skill.

If an agent's call-handling preference is by greatest need, the agent receives the highest-priority, oldest call waiting for any of his/her skills, regardless of skill level.

- **Top Skill** — For EAS-PHD, an agent's first-administered, highest-priority skill. For EAS, an agent's first-administered primary skill (or first-administered secondary skill if the agent has no primary skills assigned).

With call-handling preference by skill level, this is the skill for which the agent is most likely to receive a call.

— **Top Agent** — Any agent in a given skill who has that skill assigned as his/her top skill.

- **Skill Hunt Group** — Calls route to specific skill hunt groups, and these skill hunt groups are usually based on caller needs. Agents are not assigned to a skill group (like split hunt groups), but agents are assigned specific skills that become active when they log in.
- **Caller Needs** — The reason(s) a customer calls your call center. Caller needs are determined by the number that the caller has dialed (vector directory number [VDN]), by the Call Prompting feature, or by ANI database lookup.

You define caller requirements in the vector in order to route calls to an ACD agent with a particular skill(s) to match the needs of the caller. These caller needs (skills) become active for an ACD call whenever a *queue to main skill* or *check backup skill* vector command is executed and the threshold condition is met.

- **VDN Skill Preference** — Up to three skills can be assigned to a VDN. Calls use VDN skills for routing based on your preference (as you administer it in the vector). VDN skill preferences are referred to in the vector as “1st,” “2nd,” and “3rd.”

DEFINITY ECS EAS Capabilities

EAS for the *DEFINITY* ECS offers the following capabilities:

- As many as 20 agent skills with 16 skill levels with EAS-PHD or as many as four agent skills with two skill levels with EAS (1 or 2 for the *DEFINITY* ECS; primary or secondary for older Generic 3 switches)
- Preference Handling Distribution
- VDN/Agent Skill Call Distribution
- Logical Agent Capability
- Direct Agent Calling.

20 Skills and 16 Skill Levels

With EAS-PHD, an agent can be assigned to as many as 20 skills. For each skill, one of 16 skill levels can be assigned with 1 being the highest skill level and 16 being the lowest skill level.

If calls are waiting for some of the agent's skills and the agent's call-handling preference is by skill level, the agent will receive the call that requires the agent's highest-priority skill.

For an agent, the first-administered, highest-priority skill is known as the agent's "top skill." The "top skill" represents the skill for which the agent is most likely to receive a call (if the agent's call-handling preference is by skill level).

Note

If an agent's call-handling preference is by greatest need, then "top skill" is not useful, because the agent will receive the highest-priority, oldest call waiting that requires any of the agent's skills, regardless of skill level.

Preference Handling Distribution

Preference Handling Distribution allows an agent to take calls based on one of the following call-handling preferences:

- Skill Level
- Greatest Need.

If an agent's call-handling preference is by skill level, then the agent will receive the call that requires the skill for which the agent's skill level is highest.

If an agent's call-handling preference is by greatest need, then the agent will receive the highest-priority, oldest call waiting that requires any of the agent's skills.

For an example of Preference Handling Distribution, see Table D-1.

Table D-1: Preference Handling Distribution Example

Agent is assigned the following skills and skill levels ...	...and the following calls are in queue
Skill 11 — level 1	Waiting 15 seconds; priority med
Skill 21 — level 8	Waiting 30 seconds; priority low
Skill 31 — level 16	Waiting 45 seconds; priority med
If the agent's call-handling preference is by skill level, then the agent will receive the call waiting for skill 11.	
If the agent's call-handling preference is by greatest need, then the agent will receive the call waiting for skill 31.	

Note

It is recommended that in any skill, all agents have the same call-handling preference. This will ensure the most consistent distribution of calls by either greatest need or by skill level.

VDN Call Distribution

The EAS feature enhances the Call Vectoring and Automatic Call Distribution features of the *DEFINITY* ECS by distributing incoming calls based on specific skills assigned to a VDN or used in a vector, and skills assigned to an agent. For example, a caller would dial a particular number (VDN), and then that VDN will use a vector to queue the call to an agent with a skill that matches the VDN skill.

You can assign up to three different skills to a VDN in an order that meets your callers' needs. The first skill assigned to a VDN could be the skill that is required to best meet the needs of the customer that called the VDN. The second and third skills assigned to this VDN might represent backup skills that can also meet the caller's needs.

Agent Skill Distribution

You can assign agents up to 20 skills (with EAS-PHD) or four skills (without EAS-PHD). Each of these skills can be designated a skill level between 1 and 16 (with EAS-PHD), or 1 to 2 (without EAS-PHD), with 1 being the highest skill level (also known as the highest-priority skill).

In a situation where agents are idle and there are no calls queued, skill calls can be distributed by the *DEFINITY* ECS to agents in one of the following two ways.

- **Uniform Call Distribution (UCD)**—The most idle agent for the skill will receive the call (if the agent is available).
- **Expert Agent Distribution (EAD)**—A call queued for a skill will go to the most idle agent with the highest skill level. Agents who are idle and have the skill assigned at lower skill levels will receive the next call queued for the skill only if there are no agents with higher skill levels available.

Skill Call Distribution and Preference Handling Distribution interact to affect how calls are distributed in the following ways:

Table D-2: Agent Call Handling Table

Agent goes available:	EAD and UCD - Calls Waiting	EAD - No Calls Waiting	UCD - No Calls Waiting
Skill Level	Take the highest skill level, highest-priority, oldest call waiting	Put agent on MIA list by skill level	Put agent at back of MIA list
Greatest Need	Take the highest-priority, oldest call waiting	Put agent on MIA list by skill level	Put agent at back of MIA list

Logical Agent Capability

- With Logical Agent and EAS, calls are routed to agents via the login ID rather than the extension number assigned to the voice terminal. The agent's login ID must be consistent with the dial plan of the switch. When an agent logs into an extension, the login ID **overrides** the extension as far as ACD tracking and some characteristics, such as name, class of restriction (COR), etc.

Note

This may require a change to the *CentreVu* CMS login ID when converting to EAS if the current ID is not a valid extension number or cannot be made available in the switch dial plan. Agent login IDs must be different from administered voice terminal extensions.

When a specific login ID is called, the switch routes the call to the voice terminal the agent is currently logged into. Using the Logical Agent capability allows agents to be called without knowing which voice terminal the agent is using. Calls to agent login IDs can be delivered as direct agent calls with the proper class of restriction (see "Direct Agent Calling") set for both the originating and receiving login ID/facility.

- Also using the Logical Agent capability, agents are not assigned to skill hunt groups. Instead, an agent has specific skills (as many as 20 skills with EAS-PHD or four skills without EAS-PHD) assigned to his or her login ID on a new switch administration form. When an agent logs in, the agent is associated with the assigned skill hunt groups and tracking begins for the assigned skill(s).



Agent login IDs are assigned names in *CentreVu* CMS from the Dictionary—Login Identification window. Agent login IDs must be different from voice terminal extensions.

- *CentreVu* CMS automatically measures a logical agent administered with at least one measured skill when the agent logs in.
- Logical agent uses a single set of work-mode buttons for all *skills*. This means that an agent is available or in AUX work for all skills at the same time. An agent cannot be available in some skills and in AUX work in others.
- The voice terminal's button assignments and automatic answer options do **not** follow the agent but are associated with the physical extension.

Direct Agent Calling

Direct agent calling allows a call to a specific ACD agent to be treated as an ACD call. If that agent is logged in but not available, the call will queue for that agent. If the agent is not logged in, the call will follow the agent's coverage path. Zip-tone answer, ACW, and other ACD features can be used with direct agent calls.

EAS direct agent calling is accomplished by dialing the login with the proper class of restriction (COR) settings. Both the caller (that is, trunk, VDN, or station) and the agent must have the direct agent COR settings.

Customers could actually call an agent directly using Direct Inward Dialing (DID) if the agent's login ID is a published number, or customers could dial a toll-free number and be prompted for the agent's login ID extension.

Generic 2.2 EAS

Like Generic 3 EAS, Generic 2.2 EAS enhances the Call Vectoring and ACD feature capabilities by distributing selected ACD calls to subsets of ACD agents who are members of a larger skill hunt group. These agent subsets are based on the agents' call-handling skills which could be based on agent training, type of product or service, foreign-language skills, or other expertise.

Since the Call Vectoring feature is required to use EAS, see Appendix C, "Call Vectoring for Generic 2," in this document for more vectoring information.

Advantages to Your Call Center

Because you can match the requirements of a caller to an agent with appropriate skill(s) and knowledge to handle the call, your call center can achieve the following:

- Maximum profitability.
 - Greater customer satisfaction because the caller reaches (on the first call) an agent with the necessary knowledge (skill) to handle the call.
 - Improved employee satisfaction because agents will only handle calls they are most familiar (and most comfortable) with. It also offers agents a challenge to learn new skills.
 - Ability to track number of calls handled by particular skills from the VDN perspective. You can see whether vectors are performing as expected.
-

Identifying Caller Needs

- You can have callers dial different telephone numbers based on their needs (Dialed Number Identification Service [DNIS]).
- You can have callers use voice prompting to select their needs at a Voice Response Unit (VRU).
- You can use Automatic Number Identification (ANI) in an ASAI Gateway application that looks up a client host record and determines the caller's needs (for example, the agent with whom the client has been working).
- You can have the agent determine the caller's needs.

Skill Hunt Groups

Generic 2.2 EAS increases the number of agent groups by expanding each ACD split into a set of ten skills called a *skill tens group*. That is, when EAS is active, each ACD split becomes a skill tens group (for example, 10, 20, 30 ... up to 600, see example).

Split		Skill Tens Group
1	→	10 - 19
2	→	20 - 29
3	→	30 - 39
	•	
	•	
	•	
60	→	600-609

The EAS feature effectively increases the maximum number of agent groups from 60 (the maximum number of ACD splits) to 600.

Call Skills and Agent Skills

A skill is a 2-digit or 3-digit number in the range of 10 to 609. An incoming call acquires skills as it progresses through vector processing. Vectors contain commands that activate a VDN skill preference (1-3) or a specific skill (10 to 609). See Figure D-1. For example, for the skill 123, the “12” means the skill tens group and the “3” means the actual skill number. An incoming call can queue for up to three skills within a skill group at the same time.

ACD agents activate call-handling skills by dialing an access code followed by as many as four skill codes (see Figure D-1). A skill code is a 1-digit number in the range of 1 to 9 and it corresponds to the last (right-most) digit of a skill. For example, to activate skills 21, 22, and 23, an agent (assigned to skill group 20) dials the Agent Skill Entry access code followed by the skill codes 1, 2, and 3.

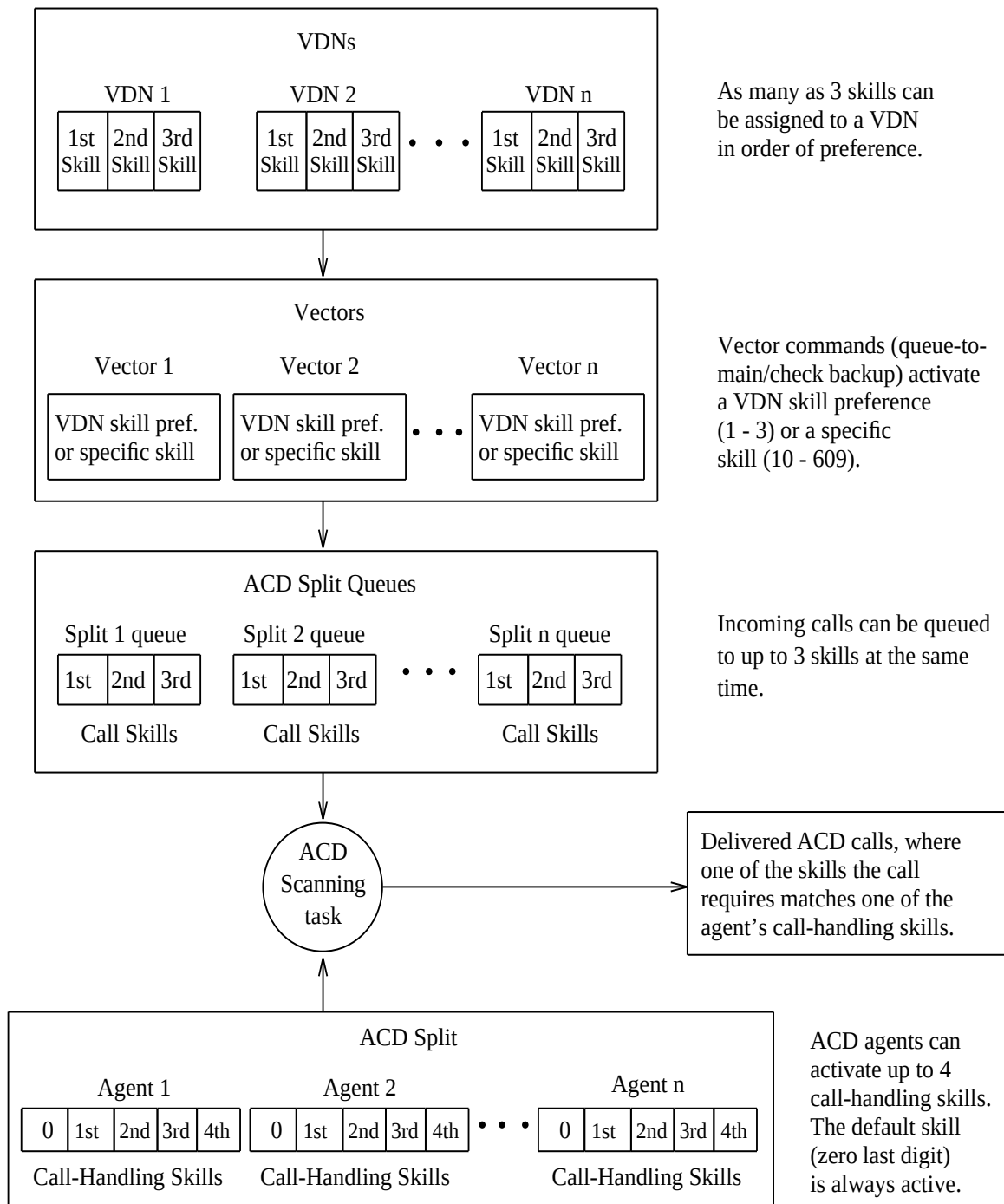


Figure D-1: Expert Agent Selection for Generic 2.2

The switch automatically assigns a default skill to an agent when the agent logs in. The default skill is the skill whose last (right-most) digit is zero (10, 20, 30, etc.). Every skill group has a default skill that is always in effect, whether or not an agent has activated skill codes. Agents who have only the default skill active can only receive calls that queue to the default skill. Because the default skill is active for all agents, a call that queued to the default skill can be delivered to any agent.

The ACD scanning task, see Figure D-1, scans the incoming-call queue and the agent queue associated with each ACD skill hunt group. If it finds a case where an agent in the agent queue has a skill appropriate to one of the calls in the incoming call queue, then it delivers the call to that agent.

Both ACD calls and ACD agents may have one or more skills active. A call that has one or more skills active can only be delivered to an available agent if the call and the agent have at least one skill in common. A skill can be unique to each skill group or a common meaning can be defined for a given skill across two or more skill groups.

Activating Call Skills

There are two ways to activate call skills, the *referenced method* and the *direct method*. With the *referenced method*, skill preferences are assigned to a VDN and vector commands activate the skills. As many as three skills can be assigned to a VDN in order of preference. The first skill assigned to a VDN, called the first VDN skill preference, specifies the skill that is required to handle a call to the VDN. The second and third VDN skill preferences are optional or backup skills. With the *direct method*, vector commands also activate skills, but skill preferences do not have to be assigned to VDNs.

Referenced Method

Although these two ways of activating call skills are similar, there is an important difference. When the referenced method is used to activate call skills, a vector command can activate different skills for different VDNs. This is possible because a vector command activates a VDN skill preference (1 - 3) and different VDNs can be assigned different skill preferences. For example, if VDN 2000 is assigned 13 as its first skill preference and VDN 3000 is assigned 25 as its first skill preference, a vector command that activates the first VDN skill preference for VDNs 2000 and 3000 will queue calls for VDN 2000 to skill 13 and calls for VDN 3000 to skill 25.

If a vector command references a skill preference that is not assigned to the VDN, vector processing will skip the command. That is, if a VDN has one skill preference administered and the associated vector has a

command that references the second or third skill preference, the command will be skipped.

Direct Method

When the direct method is used to activate call skills, vector commands activate the same skills for all calls processed by a particular vector, regardless of the VDN the caller dialed. This is because the vector commands activate a specific skill (10 to 609) rather than referencing a skill preference that could have different values for different VDNs.

The referenced or the direct method of activating call skills can be used exclusively or a combination of the two methods can be used.

Call-Handling Skills

To activate call-handling skills, an ACD agent dials the Agent Skill Entry access code followed by as many as four skill codes. After dialing the last skill code, an agent can wait for timeout (10 seconds) or dial the end-of-dialing digit (#). If an agent is using a rotary telephone or some other equipment from which a # cannot be dialed, the agent must wait for timeout (10 seconds after entering the last skill code).

The digit 0 and the * are ignored as skill codes. For example, the following entries

3700#

or

37**#

are interpreted as skills 3 and 7. Also, entering the same agent skill more than once is allowed, but the duplicate entries are ignored. For example, the following entries

3344#

or

3434#

are interpreted as skills 3 and 4.

The order in which skill codes are entered does not affect call delivery. In other words, entering skill code 3 first and skill code 7 second does not mean that an agent is more likely to receive more skill-3 calls than skill-7 calls.

To Activate Call-Handling Skills

To activate call-handling skills, an agent must be logged into the ACD. Active call-handling skills are cleared when an agent unstaffs or logs out. Call-handling skills can be changed (by activating different skills) without logging out. When you change call-handling skills, the new set of skills you enter replaces (does not add to) the previous set of call-handling skills.

To activate call-handling skills, do the following steps:

1. Go off-hook on an idle appearance. [Dial tone]
2. Dial the Agent Skill Entry access code. [Dial tone]
3. Dial up to four skill codes followed by # (the end-of-dialing digit) or wait 10 seconds for timeout. [Confirmation tone]

To Cancel Call-Handling Skills

To cancel call-handling skills, do the following steps:

1. Go off-hook on an idle appearance. [Dial tone]
2. Dial the Agent Skill Entry access code. [Dial tone]
3. Dial # (the end-of-dialing digit). [Confirmation tone]

or

Wait 10 seconds for timeout. [Confirmation tone]

Note

While logged in, agents retain the default skill.

Differences Among *DEFINITY* ECS EAS, Generic 3 EAS, and Generic 2.2 EAS

This section briefly describes the differences among the following Lucent Technologies telecommunications equipment:

- *DEFINITY* Enterprise Communications Server Release 5 with EAS.
- *DEFINITY* Generic 3 Version 2 — Version 4 switch with EAS
- *DEFINITY* Generic 2.2 switch with EAS.

For more information, see the documentation that came with your *DEFINITY* ECS or switch.

- For the *DEFINITY* ECS with EAS only, agents can be assigned a call-handling preference of “skill level” or “greatest need.”
- For the *DEFINITY* ECS, “Most Idle Agent” can optionally apply across an agent’s skills. On Generic 3 switches, the MIA list is determined only within a single skill. Agents in multiple skills who are on a call for one skill continue to move up the idle agent list in their other skills.
- For the *DEFINITY* ECS, the “Most Idle Agent” (MIA) list can include or exclude agents in After Call Work (ACW). For Generic 3 switches, the MIA list includes agents in ACW, but not agents in AUX. On Generic 2 switches, the MIA list contains agents in AUX, but not agents in ACW.
- For Generic 3 switches, agents can be assigned up to four skills and can log into **five** skills on Generic 2.2 (four plus the default skill).
- For the *DEFINITY* ECS with EAS-PHD only, agents can be assigned as many as 20 skills with one of 16 skill levels each.
- For Generic 2.2 switches with EAS, agents can log into multiple skills only within a skill tens group.
- For Generic 2.2 switches with EAS, calls can be queued to as many as three skills within a skill tens group. If a call is queued in one skill tens group (for example, skill 13) and then queued to a different skill tens group (for example, skill 23), the call is removed from all queues in the original skill group. This also applies to calls queued using VDN Skill Preferences.
- The *DEFINITY* ECS and Generic 3 switches have the Logical Agent capability.
- Generic 2.2 switches do not have Logical Agent capabilities. On a Generic 2.2 switch, voice terminals are preassigned to default skill tens groups (groups ending in zero). The voice terminal extension is

used to provide a name, class of restriction (COR), and coverage path. For the *DEFINITY* ECS or Generic 3 switch, any voice terminal can be used as an ACD terminal for any skill. Agents can be reached by dialing their login ID. Name, COR, and coverage path follow the agent to the voice terminal to which the agent is currently logged in.

- The Generic 2.2 switch does not support direct agent calling.
- The Generic 2.2 switch has different login procedures than the *DEFINITY* ECS and Generic 3 switches.
- For the Generic 2.2 switch, agents log into skills individually. For the *DEFINITY* ECS and Generic 3 switch, agents are assigned skills and automatically take calls for those skills when they log in.
- For the Generic 2.2 switch, the agent's default skill can be changed through *CentreVu* CMS if the agent is unstaffed. For the Generic 3 Version 2 or Version 3 switch, the agent's skill can be changed through *CentreVu* CMS with the agent logged in; however, the change takes effect the next time the agent logs in. For the *DEFINITY* ECS or the Generic 3 Version 4 switch, an agent's skills can be changed while they are logged in.
- For the *DEFINITY* ECS or the Generic 3 switch, primary and secondary priority levels are associated with the skills an agent is assigned. Skill levels are not assigned for the Generic 2.2 switch. The Generic 2.2 switch does not support Expert Agent Distribution (EAD) call distribution.
- For the *DEFINITY* ECS and the Generic 3 switch, call prompting in a vector can be used to determine a caller's needs. The Generic 2.2 switch must use a Voice Response Unit (VRU). (The Generic 2.2 switch does not support Call Prompting.)
- For the Generic 2.2 switch, the "oldest call waiting" condition on the *check backup* and *goto* vector commands support only the default skill (not on a per-skill basis).
- For the Generic 2.2 switch, agent extensions are members of skill groups. For the *DEFINITY* ECS or the Generic 3 switch, skills are assigned to agents.
- For the Generic 2.2 switch, the Most Idle Agent (MIA) call distribution algorithm is on a default skill (skill tens group) basis. On the *DEFINITY* ECS and the Generic 3 switch, the MIA algorithm is on a per-skill basis (called Uniform Call Distribution on Generic 3), but can be changed to be across skills on the *DEFINITY* ECS.
- The *DEFINITY* ECS and the Generic 3 switch support EAD.

Planning an EAS or EAS-PHD Call Center

This section describes the planning that you should do before activating the EAS feature. This section has the following information:

- Things to Know Before You Start (includes switch and *CentreVu* CMS capacities).
 - Determining Your Call Center Objectives.
 - Planning EAS or EAS-PHD.
 - Required Switch Administration.
 - Required *CentreVu* CMS Administration.
-

Things to Know Before You Start

- You must have the Call Vectoring feature with EAS.
- Skill hunt groups replace splits in the EAS environment and are vector-controlled hunt groups.
- You can use the Multiple Split/Skill Queuing feature with EAS to queue calls simultaneously to up to three skills.
- Login IDs should start with a unique digit in the dial plan (for example, 5111, 5123, 54321). It is preferable to dedicate a block of numbers for login IDs. This makes EAS administration and call tracking easier.

If your login IDs do not have the same first digit and the login IDs are four digits, consider going to a 5-digit dial plan.

Call Center Objectives

To take full advantage of the EAS feature, use the worksheets (Table D-3 through Table D-14) to help you:

- Determine your call center's objectives.
Look at how your call center is currently handling calls and what you want to achieve using the EAS feature.
- Identify the needs of your customers.
Why do people call your company and are the company objectives meeting the needs of your customers?
- Identify the skills needed to meet your customers' and your call center's needs.
- Identify the skills of each agent.
Do the agents have the skills to match the needs of the customer?
Will training be required?

Table D-3 is an example of possible objectives.

Table D-3: Candy Store Inc. Objectives Example

What Are My Call Center Objectives?
A 10-second average speed of answer
An average talk time of 3 minutes
Handle wholesale equipment orders
Handle sugar-free orders
Handle retail orders
Run specials and increase sales 20%

Planning EAS or EAS-PHD

One of the first things you will want to do when designing an EAS call center is identify the needs of your customers and call center. The following call center example gives some customer needs and agent skills required to meet the customer needs. Worksheets for each of the steps described in this section are included in this chapter to help you plan your call center.

Determining Customer Needs and Agent Skills

This call center example is the “Candy Store Inc.” company. The Candy Store Inc. call center concentrates on the following: catalog orders for retail customers which include all candy, nut, and gift items; wholesale orders which include all the retail items plus supplies and equipment; and a customer service department that handles inquiries from all customers. These functions translate into the following customer needs and their related agent skills.

Customer Needs	Required Agent Skill
Retail Orders	Knowledge of retail products, shipping interval, billing
Wholesale Orders	Knowledge of wholesale product line, shipping interval, billing
Customer Service	Ability to handle inquiries associated with orders/billing

Assigning Skills Hunt Groups

After determining your customer needs and the skills your agents need, you assign these as skill hunt groups on the *DEFINITY* ECS or switch. This means identifying skill hunt groups. A Skill Hunt Group is a set of agents skilled in meeting identified caller needs.

The Skill Hunt Group number is assigned to a VDN which will send calls to the skill and to agents with matching skill numbers.

In the case of the Candy Store Inc. example, skill hunt groups are assigned as follows. Notice that the Candy Store has a group of **Super Agents**. These agents can handle any call type.

Call Type	Skill Hunt Group
Retail	11
Wholesale	21
Order Processing	31
Customer Service	41
Super Agents (all call types)	99

Assigning VDN Skill Preferences

After assigning skill hunt groups, you assign skill preferences and a vector to each VDN. The skill preference indicates the skill to which the VDN will send the call if a place is available in the queue for that skill. If the VDN cannot send the call to its first skill preference, it will send the call to the second skill preference.

In the case of the Candy Store Inc. example, VDN skill preferences are assigned as follows.

Call Type	VDN	Skill Preference			Vector #
		First	Second	Third	
Retail Orders	1000	11	21	99	2
Wholesale Orders	2000	21	11	99	2
Order Processing	3000	31	99		4
Customer Service	4000	41	99		4

Assigning Agent Skills

After VDN skill preferences have been assigned, you assign agent skills and skill levels. In the case of the Candy Store Inc. example, agent skills are assigned as follows.

Assigning agents skills with EAS-PHD on the *DEFINITY* ECS:

Agent	Skills/Skill levels Assigned		
Mary Smith	11 — level 1	21 — level 3	31 — level 5
Jo Little	21 — level 1	11 — level 6	31 — level 7
Sally Jones	31 — level 1	11 — level 8	21 — level 5
Ted Montez	11 — level 2	31 — level 3	99 — level 16
Ty Chin	99 — level 1		

Note

Without EAS_PHD, four skills can be assigned per agent. For each of these skills only skills levels 1 or 2 can be assigned.

Assigning agents skills with EAS for a Generic 3 switch:

Agent	Skills Assigned	
Mary Smith	11 primary	
Jo Little	21 primary	11 secondary
Sally Jones	31 primary	21 secondary
Ted Montez	11 primary	21 secondary
Ty Chin	99 primary	

Table D-4: Customer Needs Worksheet Generic 3

Customer/Call Center Needs	Skill Name	Skill Number	UCD/ EAD	Class of Restriction

When defining skills, be aware of how you can combine skills for backup purposes.

Table D-5: Call Center Objectives Worksheet Generic 3

What Are My Call Center Objectives?

Table D-6: Individual Agent Skill Worksheet Generic 3

Agent Name	Login ID	Direct Agent?	COR	Coverage Path

Table D-7: VDN Skill Preferences Worksheet Generic 3

VDN	VDN Name	Vector	COR	Skill Preferences		
				1st Skill Name/#	2nd Skill Name/#	3rd Skill Name/#

Table D-8: Agent Skills Worksheet Generic 3

	Agent Name	Login ID	1st Skill* (Primary/ Secondary)	2nd Skill (Primary/ Secondary)	3rd Skill (Primary/ Secondary)	4th Skill (Primary/ Secondary)	COR
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							
26.							
27.							
28.							
29.							
30.							

* Direct agent calls go to this skill first.

Table D-9: Agent Skills Worksheet *DEFINITY* ECS

	Agent Name	Login ID	Direct Agent Skill	Call Handling Preference	1st Skill (Skill Level 1-16)	2nd Skill (Skill Level 1-16)	3rd Skill (Skill Level 1-16)	4th Skill-20th Skill* (Skill Level 1-16)	COR
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									
16.									
17.									
18.									
19.									
20.									
21.									
22.									
23.									
24.									
25.									
26.									
27.									
28.									
29.									
30.									

* If you have agents with more than four skills, then you may want to make your own table with columns for the Agents' additional skills.

Table D-10: Call Center Objectives Worksheet Generic 2.2

What Are My Call Center Objectives?

Table D-11: Customer Needs Worksheet Generic 2.2

Skill Tens Group Name _____

Skill Group Number _____

Customer/Call Center Needs	Skill Name	Skill Number
_____	_____	____1

_____	_____	____2

_____	_____	____3

_____	_____	____4

_____	_____	____5

_____	_____	____6

_____	_____	____7

_____	_____	____8

_____	_____	____9

Table D-12: Individual Agent Skill Worksheet Generic 2.2

Agent Name: _____

Agent Login ID: _____

Extension (Optional): _____

Skill Tens Group: _____

Skill Name	Skill Number

Table D-13: VDN Skill Preferences Worksheet Generic 2.2

[illegible]

Table D-14: Skill Group Extension Worksheet Generic 2.2

Skill Tens Group Number _____

[illegible]

Prerequisite *DEFINITY* ECS Administration

Be aware of the following before you start any switch administration.

- You may enable *DEFINITY* EAS without activating EAS. This allows most of EAS to be administered without your call center being out of operation.
- Agent login ID administration and VDN Skill administration can be administered on the *DEFINITY* ECS prior to activating the EAS feature.
- Existing vectors will work indicating specific skills.
- All agents must be administered as logical agents (administration of login IDs and skills on the switch).

Switch Forms

Before activating the EAS feature, make sure the following switch administration has been completed and you understand how calls will be routed to agents.

- **System Parameters Customer Option**

On this screen, the Expert Agent Selection Enabled? field will be changed to “y” (yes) when the system is installed.

If you have purchased EAS-PHD, the Expert Agent Selection-Preference Handling Distribution (EAS-PHD) Enabled? field will be changed to “y” (yes) when the system is installed.

- **Dial Plan**

You may change the dial plan.

It is **recommended** that login IDs start with a unique digit in the dial plan (for example, 5111, 5123, 5432). It is preferable to dedicate a block of numbers for login IDs.

If your login IDs do not have the same first digit and the login IDs are four digits long, consider going to a 5-digit number for login IDs.

Note

This may require a change to the *CentreVu* CMS login ID if the current ID is not a valid extension number or cannot be made available in the switch dial plan. Agent login IDs must be different from assigned voice terminal extensions.

- **VDN Form**

You will be adding or changing VDNs from this screen and designating skill preferences.

- **Vector Form**

You may change vectors from this screen.

- **Hunt Group Form**

You will be adding or changing skill hunt groups from this screen.

The Skill?, ACD?, and Vector? fields must be all yes or all no.

The hunt group types should be either **UCD** or **EAD**.

Note

Agents are not administered on the hunt-group form when EAS is enabled.

- **Agent Login ID Form**

You will be adding or changing agent login IDs and skill assignments.

Note

When you add or change skills on the *DEFINITY* ECS, the agent must log out and then log in again before the changes take effect.

You must also select the call-handling preference for agent login IDs in this form. The Call Handling Preference field must be set to either **skill level** or **greatest need**. The default is **skill level**.

You also may enter a direct agent skill number in the “direct agent skill” field.

Note

The direct agent skill entered in this field must be one of the agent’s administered skills or the field must be left blank. If no direct agent skill is administered and the agent receives a direct agent call, the call will be delivered to the agent’s first-administered, highest-level skill.

- **Station Form**

Only a single set of work mode buttons is needed with EAS. Remove additional sets of buttons (if administered for agents in multiple splits).

Prerequisite Generic 3 Switch Administration

Be aware of the following before you start any switch administration.

- You may enable EAS without activating EAS. This allows most of EAS to be administered without your call center being out of operation.
- Agent login ID administration and VDN skill administration can be administered on the switch prior to activating the EAS feature.
- Existing vectors will work indicating specific skills.
- All agents must be administered as logical agents (administration of login IDs and skills on the switch).

Switch Forms

Before activating the EAS feature, make sure the following switch administration has been completed and you understand how calls will be routed to agents.

- **System Parameters Optional Features**

On this screen, the Expert Agent Selection (EAS) Enabled? field will be changed to “y” (yes) when the system is cut.

- **Dial Plan**

You may do a change dial plan.

It is **recommended** that login IDs start with a unique digit in the dial plan (for example, 5111, 5123, 5432). It is preferable to dedicate a block of numbers for login IDs.

If your login IDs do not have the same first digit and the login IDs are four digits long, consider going to a 5-digit number for login IDs.

Note

This may require a change to the *CentreVu* CMS login ID if the current ID is not a valid extension number or cannot be made available in the switch dial plan. Agent login IDs must be different from assigned voice terminal extensions.

- **VDN Form**

You will be adding or changing VDNs from this screen and designating skill preferences.

- **Vector Form**

You will be changing vectors from this screen.

- **Hunt Group Form**

You will be adding or changing skill hunt groups from this screen.

The Skill?, ACD?, and Vector? fields must be all yes or all no.

The hunt group types should be either **UCD** or **EAD**.

Note

Agents are not administered on the hunt-group form when EAS is enabled.

- **Agent Login ID Form**

You will be adding or changing agent login IDs and skill assignments.

Note

When you add or change skills for an agent who is logged in, the agent must log out and then log in again before the changes take effect.

- **Station Form**

Only a single set of work mode buttons is needed with EAS. Remove additional sets of buttons (if administered for agents in multiple splits).

Prerequisite Generic 2.2 Switch Administration

Before activating the EAS feature, make sure the following switch administration has been completed and that you understand how calls will be routed to agents.

- Assignment of the EAS feature is on a per-system basis by authorized Lucent personnel.
- The Automatic Call Distribution and Call Vectoring features must be administered.
- The following are the applicable administration procedures for EAS.

Administration Procedures Expert Agent Selection			
Procedure	Word	Purpose	SMT
030	2	Beginning with <i>DEFINITY</i> Generic 2.2, Procedure 030, Word 2 is used to add a new vector or to change, copy, or remove an existing vector. (Prior to <i>DEFINITY</i> Generic 2.2, Procedure 030, Word 3 was used to add, change, copy, or remove vectors.)	Yes
030	3	Assigns VDN skill preferences (1 - 3) or specific skills (10 - 609) to vector commands.	Yes
031	2	Assigns as many as three skill preferences to a VDN.	Yes
276	1	Assigns Expert Agent Selection to the feature group class of service.	No
350	2	Assigns the Agent Skill Entry dial access code. The applicable encode is as follows: 107 Agent Skill Entry	No

CentreVu CMS Administration to Use EAS or EAS-PHD

CentreVu CMS further enhances EAS or EAS-PHD tracking by allowing you to do the following:

- Reports

Agent activity is summarized over all skills or shown for each skill.

VDN skill activity is found in the VDN Skill Preference reports (one real-time and one historical).

- Dictionary (Chapter 4, “Dictionary”)

- Login IDs

Assign agent names to login IDs so agent names appear on *CentreVu* CMS reports. See “Prerequisite Switch Administration for Generic 3” or “Prerequisite Switch Administration for Generic 2.2” for more information on the recommended digit use for login IDs.



It is recommended that on *CentreVu* CMS you use the same names as administered on the switch login form.

- Skill names

Assign names to skills so skill names appear on *CentreVu* CMS reports.

- Exceptions (see Chapter 5, “Exceptions”)

Administer appropriate skill exceptions.

- ACD Administration (see Chapter 6, “ACD Administration”)

From *CentreVu* CMS, you can do the following at any time:

- Add, change, or delete VDN skill preferences.
 - Add, change or delete agent skills (ECS and Generic 3). For the *DEFINITY* ECS and the Generic 3 Version 4 switch, these changes take effect while the agent is staffed. On Generic 3 Version 2 and Version 3 switches, these changes do not take effect until the agent logs out and then logs back in.
 - Use the Vector Contents window to create, modify, or delete vectors.
 - Move agent extensions between skill tens group (Generic 2.2 switches with the EAS feature only).

- User Permissions (Chapter 1, “User Permissions”)

Grant skill access from the Split/Skill Access window.

Additional Call Data with EAS

With EAS, the following additional data tracking is available.

- **Direct agent calls (*DEFINITY* ECS/Generic 3)**

CentreVu CMS tracks the queue time for the direct agent calls waiting in any skill for an agent, unless that skill is unmeasured. If the skill is not measured, *CentreVu* CMS credits the agent with a direct agent call, but no queue time is tracked.

Skill/Split Tables

The Skill/Split tables keep the following direct agent call information.

- The number of direct agent calls queued in this split/skill's queue, and the number of direct agent calls ringing at the agent in this split/skill.
- Number of agents in this split/skill currently on direct agent calls or in ACW for direct agent calls.

Agent Tables

The agent tables separate direct agent calls from ACD calls. Items that track direct agent and time start with **DA_** or **I_DA_**.

Note

The standard real-time and historical reports combine direct agent and split/skill ACD calls. You can separate these items by creating a custom report. See the *CentreVu™ CMS R3V5 Custom Reports* (585-215-822) document for custom report creation information.

VDN/Vector Tables

The VDN and vector tables include direct agent calls with split/skill ACD calls. Separate tracking is not provided.

- **Personal calls**

The first measured skill a logical agent is logged into (whether a primary, secondary, or any skill level) is used by *CentreVu* CMS to track non-ACD calls, unless the agent has an ACD call on hold and the agent makes an outgoing personal call. In this case, the non-ACD call is credited to the skill/split of the ACD call.

Database Items

The following database items (Table D-15) have been added to the *CentreVu* CMS real-time and historical databases.

Standard CMS Items

The following new items have been added to the Dictionary: Database Items: Standard CMS Items list:

Table D-15: Database Items: Standard CMS Items

Database Item	Table	Description
AWORKMODE	cagent	If agent AVAIL, work mode associated with SPLIT
DA_SKILL	cagent	Direct agent skill assigned to agent (<i>DEFINITY</i> ECS)
LEVEL	cagent	Skill level associated with SPLIT (<i>DEFINITY</i> ECS)
LOGONSKILL6-20	cagent	Agent's sixth (seventh, etc.) login skill (<i>DEFINITY</i> ECS)
PREFERENCE	cagent	Agent's call-handling preference (<i>DEFINITY</i> ECS)
SKLEVEL, 2-20	cagent	Skill level for agent's first (second, etc.) login skill (<i>DEFINITY</i> ECS)
TOPSKILL	cagent	Agent's highest-priority, first administered skill (<i>DEFINITY</i> ECS)
WORKSKLEVEL	cagent	Skill level associated with WORKSKILL (<i>DEFINITY</i> ECS)
WORKSPLIT6-20	cagent	A skill in which the agent is available (<i>DEFINITY</i> ECS)
LOGONSKILL6-20	haglog	Agent's sixth (seventh, etc.) login skill (<i>DEFINITY</i> ECS)
SKLEVEL, 2-20	haglog	Skill level for agent's first (second, etc.) login skill (<i>DEFINITY</i> ECS)

Table D-15: Database Items: Standard CMS Items (Contd)

Database Item	Table	Description
I_DA_ACDTIME	csplit, psplit, hsplit, dsplit, wsplit, msplit	Time agents spent on direct agent ACD calls
I_DA_ACWTIME	csplit, psplit, hsplit, dsplit, wsplit, msplit	Time agents spent in direct agent after call work
I_TAVAILTIME	csplit, psplit, hsplit, dsplit, wsplit, msplit	Time top agents were available in this skill
I_TAUXTIME	csplit, psplit, hsplit, dsplit, wsplit, msplit	Time top agents were in AUX in this skill
MAXTOP	csplit, psplit, hsplit, dsplit, wsplit, msplit	Maximum top agents staffed during interval
TAGINRING	csplit	Top agents with ACD calls for this skill ringing
TAVAILABLE	csplit	Top agents available
TDA_INACW	csplit	Top agents in ACW for direct agent calls
TDA_ONACD	csplit	Top agents on direct agent calls
TINACW	csplit	Top agents in ACW in this skill
TINAUX	csplit	Top agents in AUX
TINAUX0	csplit	Top agents in AUX with reason code 0
TINAUX1	csplit	Top agents in AUX with reason code 1
TINAUX2	csplit	Top agents in AUX with reason code 2
TINAUX3	csplit	Top agents in AUX with reason code 3
TINAUX4	csplit	Top agents in AUX with reason code 4

Table D-15: Database Items: Standard CMS Items (Contd)

Database Item	Table	Description
TINAUX5	csplit	Top agents in AUX with reason code 5
TINAUX6	csplit	Top agents in AUX with reason code 6
TINAUX7	csplit	Top agents in AUX with reason code 7
TINAUX8	csplit	Top agents in AUX with reason code 8
TINAUX9	csplit	Top agents in AUX with reason code 9
TONACD	csplit	Top agents on ACD calls for this skill
TONACDAUXOUT	csplit	Top agents on AUXOUT calls with ACD call held
TONACDOUT	csplit	Top agents on outgoing ACD calls
TONACWIN	csplit	Top agents on ACWIN calls
TONACWOUT	csplit	Top agents on ACWOUT calls
TONAUXIN	csplit	Top agents on AUXIN calls
TONAUXOUT	csplit	Top agents on AUXOUT calls
TOTHER	csplit	Top agents in the Other state
TSTAFFED	csplit	Agents staffed with this skill as top skill
DISPSKLEVEL	call_rec	Skill level associated with ANSLOGIN

Appendix E

Getting Started Worksheets

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General Information

Appendix E helps you to become familiar with the call center's objectives. It also helps you to complete the appropriate worksheets before you log into *CentreVu*™ Call Management System (CMS). Information on using *CentreVu* CMS is presented in a step-by-step sequence. Worksheets and checklists help you with *CentreVu* CMS administration, daily maintenance, and use. Where required, the worksheets and checklists provide references to the appropriate appendix, MainMenu item, or submenu item.

This appendix includes the following information:

- Information required before you log into *CentreVu* CMS
- A "Getting Started Checklist" and worksheets to help you administer the *CentreVu* CMS
- Information on generating reports, configuring splits, administering *CentreVu* CMS users, and maintaining *CentreVu* CMS
- Agent login/logout procedures.

Note

If you have purchased the Expert Agent Selection (EAS) feature, see Appendix D, "*CentreVu*™ CMS and Expert Agent Selection," for more EAS information and worksheets.

Getting Started Checklist

Use this checklist when you first use *CentreVu* CMS. The checklist shows the task to be completed and indicates the appropriate chapter, MainMenu item, and submenu item to select. The submenu item is in italics.

√	Task	Chapter/ Appendix	Main Menu Item and <i>Submenu</i> Item
	1. Complete all the appropriate worksheets.	E	
	2. Know how to log in.	E	
	3. Change your password.	2	
	4. Verify that the link between the <i>CentreVu</i> CMS processor and the switch is up.	2	Maintenance <i>Connection Status</i>
	5. Verify the number of measured splits, call work codes, trunks, trunk groups, VDNs, and vectors.	2	System Setup <i>Data Storage Allocation</i>
	6. Verify that the Lucent technicians backed up the UNIX* file system before turning it over to you.		
	7. Assign agent names to agent login IDs. <i>Using zero-length IDs (possible for Generic 3 and the ECS) prevents the collection of agent data from the switch.</i>	4	Dictionary
	8. Assign <i>CentreVu</i> CMS user IDs and access permissions for split/skill supervisors.	1	User Permissions <i>User Data</i> <i>Feature Access</i> <i>MainMenu Access</i> <i>Split Access</i> <i>Trunk Group Access</i> <i>ACD Access</i> <i>VDN Access</i> <i>Vector Access</i>

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✓	Task	Chapter/ Appendix	Main Menu Item and Submenu Item
	9. Ensure that your free space parameters match your system design. If disk space is expected to be a problem, consider changing the Data Storage Allocation.	2	System Setup <i>Free Space Allocation</i>
	10. Send a report to each <i>CentreVu</i> CMS printer to verify that the printer is working. (See Chapter 2, "User Basics," for the procedures.)	2	
	11. Schedule <i>CentreVu</i> CMS timetables. <i>Optional:</i> Assign responsibility for manual daily <i>CentreVu</i> CMS backups.	3	Timetable
	12. Train agents on voice terminal login procedures.	E	
	13. Give agents their assigned login IDs.		
	14. Train split/skill supervisors and other <i>CentreVu</i> CMS users on <i>CentreVu</i> CMS.		

Note

The tasks listed below are optional.

	15. Schedule an incremental backup (optional).	3	Timetables and Shortcuts
	16. Schedule a full backup (optional).	3	Timetables and Shortcuts
	17. Schedule the daily historical reports.	3	Timetables and Shortcuts
	18. Schedule the weekly/monthly historical reports.	3	Timetables and Shortcuts
	19. Assign names for splits, trunk groups, ACDs, VDNs, and vectors.	4	Dictionary
	20. Assign agents to agent groups.	4	Dictionary
	21. Create desired shortcuts.	3	Timetables and Shortcuts
	22. Define your acceptable service level and call profile increments (optional).	6	ACD Administration <i>VDN Call Profile Setup</i> <i>Split Call Profile Setup</i>

Computer Worksheet

The information on this worksheet will be helpful if you call the ACD/CMS Helpline. This information is also helpful for routine maintenance.

What kind of computer is running your <i>CentreVu</i> CMS software?
Where are the computer and system console located?
Have you identified the link cable between the computer and the switch?
What is the serial number on your computer?
Where is the on/off switch on your computer?
What is the dial-up number assigned for off-site technicians to dial into your system?

Switch Worksheet

You need to coordinate with the switch administrator when new agent sets, splits, trunk groups, vectors, and VDNs are added. You also need to identify and resolve link down conditions.

Who is the switch administrator?
Will you coordinate any changes with the switch administrator?

Login/Password Worksheet

After your system has been installed by a Lucent technician, complete the following worksheet before you begin administering *CentreVu* CMS. If you have questions, contact the Lucent technician who installed your system.

For system security, **passwords should not be written down**. If passwords are written down, put them in a secured area.

Who has the password for the <i>root</i> login ID? (Also, who has the passwords for the system login IDs, if they were assigned?)	1. _____
Who has the <i>CentreVu</i> CMS administrator login ID and password? (This login ID is <i>cms</i> .)	2. _____
Are there any additional login IDs for the <i>CentreVu</i> CMS administrator? (Be sure to record the owner's name.)	3. _____
	4. _____
	5. _____

Split Objectives Worksheet

Answers to the following three questions clarify the call center's objectives for each split. You should have this information before using *CentreVu* CMS.

1. How many splits were assigned when your *CentreVu* CMS was installed?
2. During what hours will each split take calls? (Fill out the worksheet below.)

Split Name/Number	Time	Time	Time
Sales	7AM - 3PM	3PM - 11PM	11PM - 7AM

3. What are the call center's objectives for each split? (Fill out the worksheet below. Review the Engineering Guidelines in Appendix A, "ACD Basics," for more information.)

Split Name/Number _____
What kind of calls does this split handle?
What is the Service Level? (How quickly should calls be answered?)
What is the target Average ACD Talk Time for this split?
What is the target Average After Call Work Time for this split?
What is the Abandoned Calls objective for this split?
How many agents will be assigned to this split?
What is your expected call rate per hour?
What is your expected busiest call hour?
How many calls do you expect to handle in a day?

Split Intraflow/Interflow Worksheet

Fill out the following worksheet if your switch does **not** have vectoring.

Enter the split name or number.
What intraflow/interflow will be set up for this split?
What is the inflow threshold?
What is the outflow threshold?
Where will calls go after hours for this split?

Enter the split name or number.
What intraflow/interflow will be set up for this split?
What is the inflow threshold?
What is the outflow threshold?
Where will calls go after hours for this split?

Enter the split name or number.
What intraflow/interflow will be set up for this split?
What is the inflow threshold?
What is the outflow threshold?
Where will calls go after hours for this split?

Agent Sets/Voice Terminals Worksheet

Use this worksheet to gather helpful information if you are responsible for agent voice terminals, or if you are responsible for training agents to use their voice terminals.

What types of sets or voice terminals will the agents be using?

(2500 sets, 7303S/7305S, 7406D with/without displays, 7410, 7405D with/without displays, 7407D, 7434 with/without displays, *Callmaster*[®] or BRI terminals).

What ACD buttons were assigned to agent sets (AUTO-IN, MANUAL-IN, AUX-IN, etc.)?

Will agents be using headsets?

Will agents have ACD User Instruction booklets for their agent sets/voice terminals?

Who is responsible for training agents on sets/voice terminals?

Who do agents contact if their agent set is not working?

CentreVu CMS Split/Skill Supervisor Login IDs/Access Permissions/Printer Worksheet

Split/Skill Supervisor Name: _____

CentreVu CMS User ID: _____

Room Number: _____

Telephone Number: _____

Printer Name: _____

System Access	Read?	Write?
Reports:	_____	_____
Dictionary:	_____	_____
Exceptions:	_____	_____
ACD Administration:	_____	_____
Forecast:	_____	_____
Custom Reports:	_____	_____
User Permissions:	_____	_____
System Setup:	_____	_____
Maintenance:	_____	_____
Timetable:	_____	_____
UNIX System:	_____	_____
Main Menu Addition:	_____	_____

Which Split(s) Access: _____

Which Trunk Group(s) Access: _____

Which ACD(s) Access: _____

Which VDN(s) Access: _____

Which Vector(s) Access: _____

Split/Skill Supervisors Worksheet

Note

Before you fill out this worksheet you need to know which *CentreVu* CMS functions each supervisor will perform. The functions determine which access permissions you grant to each split/skill supervisor. You also need to be familiar with the functions that are performed in each subsystem before granting any permissions.

How many split/skill supervisors will have terminals?

Do split/skill supervisors have Supervisor Console User Instruction Booklets?

What kind of terminal training is needed for split/skill supervisors?

What kind of *CentreVu* CMS training is needed for split/skill supervisors?

For example, will the split/skill supervisor(s) be:

- creating shortcuts or timetables?
- viewing only the Reports subsystem?
- using the Dictionary or Exceptions subsystem?
- trained in Forecast?
- trained as backup *CentreVu* CMS administrator(s)?

Who will train split/skill supervisors on their terminals/CMS?

Have you filled out the *CentreVu* CMS Supervisor Login IDs/Access Permissions/Printer Worksheet?

Trunks and Trunk Groups Worksheet

How many trunk groups were assigned during installation?
How many trunks (all together, or by trunk group) were assigned?
Will all trunk groups be measured by <i>CentreVu</i> CMS?
List your measured trunk groups.

VDNs and Vectors Worksheet

Note

VDNs and vectors apply only if you have purchased the *CentreVu* CMS Vectoring feature.

How many VDNs were assigned?
How many vectors were assigned?
Who is responsible for designing, programming, and changing vectors?
Do you have a printout of assigned vectors?

Vector Design Worksheet

You should create vectors on paper before administering the vectors on your system.



Vectors and VDNs apply only if you have purchased the *CentreVu* CMS Vectoring feature.

Vector Design Worksheet

Vector #: _____ Name: _____ Description: _____

Assigned VDN(s): _____ Assigned Trunk Group(s): _____

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Vector Design Worksheet (Contd)

16.

17.

18.

19.

20.

21.

22.

23.

24.

25.

26.

27.

28.

29.

30.

31.

32.

Terminals Worksheet

Use this worksheet for basic information about terminal maintenance, training, or problems.

Who do you contact for terminal problems? _____

Terminal Type	Location

Printers Worksheet

To print *CentreVu* CMS reports, you need to know where the *CentreVu* CMS printers are located and how they are administered.

Printer Type	UNIX/Solaris Printer Name	Location	CMS Printer Name

Night Service Worksheet (non-vectoring)

Your call center may require special arrangements for calls after normal working hours. If so, you need to know what the night service arrangement is for each split.

Split Name/Number	Night Service Arrangement

Split Announcements Worksheet (non-vectoring)

Split Name/Number: _____
How many announcements were assigned to this split?
How long does each announcement last?
What does each announcement say?
If a split has a second delay announcement, does it repeat?
Does the system have music-on-hold?
Who is responsible for recording and changing announcements?
Will an emergency announcement be used?
What will the emergency announcement say?

Vector Announcements Worksheet

Vector Name/Number: _____
How many announcements were referenced in this vector?
How long does each announcement last?
What does each announcement say?
Do any announcements repeat?
Does the system have music-on-hold?
Who is responsible for recording and changing announcements?
Will an emergency announcement be used?
What will the emergency announcement say?

[illegible]

Tape Backups Worksheet

Where are the backup tapes located?
Do you have enough tapes to rotate the tapes daily?
Note: Do not leave the same tape in the machine for an extended period of time.

Power Failure Worksheet

Use this worksheet if you are responsible for *CentreVu* CMS during a power failure.

Where are the power failure extensions located?
Does the system have an Uninterruptible Power Supply (UPS)?
If yes, how long will your system operate without power?
If power fails, what do you do to the system?

Emergency Conditions Worksheet

Use this worksheet if, in an emergency situation, you are responsible for redirecting *CentreVu* CMS calls, recording special announcements, or being aware of your call center's special procedures.

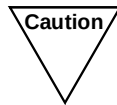
What do you do when the link or <i>CentreVu</i> CMS goes down?
What do you do when the switch goes down?
What do you do if you have a fire drill?
What do you do if you evacuate the building?
What do you do if you have unusual weather conditions?
What do you do if you have any other emergency?
Will you have an appropriate emergency announcement? What will the announcement say?
What are your disaster recovery procedures?

Other Items Worksheet

Do you have a printed copy of the output* from the <i>df -t</i> command?
*The printed output contains the names of disk partitions on which different portions of the <i>UNIX</i> system and <i>CentreVu</i> CMS files reside. It also contains information on the number of blocks being used and blocks still available in given areas of the <i>UNIX</i> system and <i>CentreVu</i> CMS file structure. Keep this information for reference.
Have you determined the refresh rates for terminals?
Have you set realistic exceptions? (Set exceptions that you will act on when <i>CentreVu</i> CMS notifies you of an exceptional condition.)
Has the current interval length in the System Setup — Storage Intervals window been set (15, 30, or 60 minutes)?
If you are using Forecast, have you started the Forecast Manager?

Agent Login/Logout Procedures

Agents in a call center handle calls using voice terminals that are connected to the switch. For *CentreVu* CMS to record agent activity, agents must log into their voice terminals using login IDs assigned to them by the *CentreVu* CMS administrator. The *CentreVu* CMS administrator can determine what agent login IDs are available from the Dictionary subsystem. Also in the Dictionary subsystem, the *CentreVu* CMS administrator can assign agent names to login IDs.



Agents should avoid logging in and logging out other than at the beginning and end of their shifts. Agents should use the AUX WORK mode for short periods away from their positions.

ECS and Generic 3

Login (without EAS)

For ECS and Generic 3, perform the following procedure to log into an ACD agent position.

1. Select an idle call appearance. → *You hear a dial tone.*
2. Dial the agent login access code, or press the LOGIN button. (The login access code is available from the switch administrator.) → *You hear a dial tone.*
3. Dial the split number.
4. Dial your login identification number. → *You hear a confirmation tone.*

Any 1- to 9-digit number is valid for *CentreVu* CMS. A 0-digit login, which means that no login IDs are required, may be specified at the switch, but *CentreVu* CMS is not able to collect data for these agents.

5. Press the appropriate button to disconnect your voice terminal from the line. → *The agent position is now in the AUX state.*
6. Repeat this procedure to log into another split.

Login (with EAS)

For ECS and Generic 3, perform the following procedure to log into an ACD agent position.

1. Select an idle call appearance. → *You hear a dial tone.*
2. Dial the agent login access code, or press the LOGIN button. (The login access code is available from the switch administrator.) → *You hear a dial tone.*
3. Dial your login identification number. (This is the 1- to 5-digit login ID administered on the switch.) → *If you hear a confirmation tone, skip to Step 5. If you hear a dial tone, continue with step 4.*
4. Dial your 1- to 9-digit password. → *You hear a confirmation tone.*
5. Press the appropriate button to disconnect your voice terminal from the line. → *The agent position is now in the AUX state.*

Logout

For ECS and Generic 3, perform the following procedure to log out of an ACD agent position.

1. Select an idle call appearance. → *You hear a dial tone.*
2. Dial the logout access code, or press the LOGOUT button. (The logout access code is available from the switch administrator.)
3. Dial the split number. (Skip this step for EAS.) → *You hear a confirmation tone. The intercept tone means the agent was already logged out.*

4. Press the appropriate button to disconnect your voice terminal from the line. → *The agent position is now in the UNSTAFFED state.*
5. Repeat for other splits, if necessary.

Note

The position can be unstaffed accidentally by:

- Inadvertently logging off
- Going on-hook during AUTOMATIC ANSWERING operation (zip tone)
- Unplugging a headset during AUTOMATIC ANSWERING operation (zip tone).

Generic 2

Login

For Generic 2, perform the following procedure to log into an ACD agent position.

1. Select an idle call appearance. → *You hear a dial tone.*
2. Dial the agent login access code, or press the LOGIN button. (The login access code is available from the switch administrator.) → *You hear a dial tone.*
3. Dial your login identification number twice. Any 4-digit number — where the first digit is not zero — is valid, but the login ID assignment is a *CentreVu* CMS responsibility. → *You hear a confirmation tone if successful or an intercept tone if unsuccessful because:*
 - *Login ID is not the same both times.*
 - *Login ID is already in use.*
 - *Login ID is out of range.*

4. Press the appropriate button to disconnect your voice terminal from the line. → *The agent position is now in the AUX state.*

Note With Expert Agent Selection (EAS) on Generic 2.2, agents can add skills.

Logout

For Generic 2, perform the following procedure to log out of an ACD agent position.

1. Select an idle call appearance. → *You hear a dial tone.*
2. Dial the logout access code, or press the LOGOUT button. (The logout access code is available from the switch administrator.) → *You hear a confirmation tone. An intercept tone means the position was already logged out.*
3. Press the appropriate button to disconnect your voice terminal from the line. → *The agent position is now in the UNSTAFFED state.*

Note You could inadvertently log off and unstaff the agent position by:

- Pressing the STAFF button
- Dialing the staff access code
- Going on-hook during AUTOMATIC ANSWERING operation (zip tone)
- Disconnecting the headset during AUTOMATIC ANSWERING operation (zip tone).

Temporarily Leaving a Headset-Equipped Position

To take your headset with you while temporarily leaving your position, perform the following procedure.

1. Press AUX WORK.
2. Disconnect your headset from the voice terminal. → *This places the position in AUX WORK, where no ACD calls will be distributed.*

Note

Unstaffing the position or pulling the headset out without going into AUX WORK are not recommended procedures. Unstaffing the position creates an unnecessary record in the agent file. Pulling the headset out without going into AUX WORK can leave the position available.

Glossary

3332 Platform	<i>Intel</i> [*] -based CMS platform
Abandoned Call	A call in which a caller hangs up before receiving an answer from an agent. The call could be queued to a split/skill or in a vector/VDN or ringing at an agent before it is abandoned.
Abandoned Call Search	An ACD capability that enables the system to make sure on certain trunk types that the caller is on the line before passing the call to an agent.
Acceptable Service Level	A target value set to define the acceptable amount of time for an agent to answer a call. Target values are normally set as objectives by management. A percentage of calls answered within a set amount of time (for example, 80% of calls answered within 20 seconds).
Access Permissions	Permissions assigned to a CMS user so that user can access different subsystems in CMS or administer specific elements (splits/skills, trunks, vectors, etc.) of the ACD. Access permissions are specified as read or write permission. Read permission means the CMS user can access and view data (for example, run reports or view the Dictionary subsystem). Write permission means the CMS user can add, modify, or delete data and execute processes.
ACD	See <i>Automatic Call Distribution</i> .
ACD Call	A call that queued to a split/skill and was answered by an agent in that split/skill, or a call that queued as a direct agent call and was answered by the agent for whom it was queued.
Acknowledgment	A window that requires you to confirm an action or to acknowledge a system message (for example, system going down, warning, or fatal error for the user window). This window cannot be moved, sized, or scrolled and disappears only when you confirm the message.
Action List	A menu in the upper-right corner of most user windows. The menu lists the actions available for that particular user window (for example, add, modify, delete, etc.). You select an action after entering necessary data in the user window.
Activate Agent Trace	From this window you can start CMS tracing of agent activities. These activities include all agent state changes until the trace is turned off. You

^{*} Intel is a registered trademark of Intel Corp.

can activate traces for a maximum of 100 agents for an Intel computer, or 250 agents for a Sun computer, at any one time. You must activate an agent trace to obtain an Agent Trace report.

Active VDN Calls	Also known as counted-calls to VDN. A Call Vectoring capability available with G3V4 or later switches. Counted-calls to VDN is a parameter of the “go to step” and “go to vector” commands that provides conditional branching (to a different step in the same vector or to a different vector) based on the number of incoming trunk calls a VDN is currently processing in a vector or at an agent.
ACW	See <i>After Call Work</i> .
Add	A CMS Action that adds the data entered in the given window to the database.
Adjunct/Switch Applications Interface (ASAI)	An open application interface through which processors and switches can jointly provide services that require applications to initiate, receive, and control calls or make use of switch features. (See <i>Open Application Interface</i> .)
After Call Work (ACW)	An agent state generally representing work related to the preceding ACD call. Going on-hook after an ACD call during MANUAL-IN operation places the agent in ACW. With Generic 3, ACW is also accessible by a button on the agent's set and may not be related to an ACD call.
Agent	A person or VRU port that answers calls to an ACD split/skill. The agent is known to CMS by a login identification keyed into a voice terminal.
Agent Login ID	A 1- to 4-digit number (Generic 2) or a 1- to 9-digit number (Generic 3) entered by an ACD agent from a voice terminal to activate the agent's position. Agent logins are required for all CMS-measured ACD agents.
Agent Occupancy	The percentage of time that you are expecting or targeting for each split/skill agent to spend, while logged in, on ACD calls and in ACW.
Agent Position (EAS)	The combination of agent login ID and the skills the agent is assigned. Data are collected for the agent by skill, so the total work for the agent must be summed over all skills in which the agent worked.
Agent Position (Non-EAS)	The combination of agent login ID and split the agent logged into. Agents logged into multiple splits have multiple positions associated with them. Call data are collected separately for each agent/split combination.

Agent Skill	An attribute that is associated with an ACD agent. Agent Skills can be thought of as the ability for an agent with a particular set of skills to handle a call that requires one of a set of skills. An agent can be assigned up to 20 skills. The meaning of each Agent Skill is defined by the customer. Examples of what could be considered skills are: the ability to speak a particular language or the expertise to handle a certain product. See <i>Primary Skill</i>, <i>Secondary Skill</i>, and <i>Skill Level</i>.
Agent State	A feature of agent call handling. Agent states are the different call work modes and call states an agent can be in (ACD, ACW, AVAIL, AUX, UNSTAFF, DACD, DACW, OTHER, UNKNOWN, RING). Data about these states is displayed in real-time and historical reports. See the definition of each state for additional information.
Agent Terminal	The voice terminal used by a call center agent.
Agent Trace	You must start an agent trace before you can obtain an Agent Trace report. You can select the dates that the report will cover. This report lists each agent activity and the time it occurred. The Agent Trace report can be helpful when evaluating how well individual agents are using their time.
AI	See <i>Auto-In</i>.
Algorithm	A prescribed set of well-defined rules or instructions for the solution of a problem; for example, the performance of a calculation, in a finite number of steps. Expressing an algorithm in a formal notation is one of the main parts of a software program.
ANI	See <i>Automatic Number Identification</i>.
Announcement	A recorded voice message that normally tells the caller what destination the call has reached. The announcement also often tries to persuade the caller to stay on the line. With Call Vectoring, announcements can be part of a vector's call processing. An announcement is assigned to a vector by entering an announcement number.
ASA	See <i>Average Speed of Answer</i>.
ASAI	See <i>Adjunct/Switch Applications Interface</i>.
Auto-Available Split	An ACD capability that ensures that after a power failure or a system restart, Voice Response Units (for example, the <i>CONVERSANT</i>® Voice

Information System) are brought on line again immediately, without time-consuming reprogramming.

Auto-In (AI)

An ACD 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 Call Distribution (ACD)

A switch feature using software that channels high-volume incoming and outgoing call traffic to agent groups (splits or skills).

Also an agent state where the extension is engaged on an ACD call.

See *Redirect On No Answer* and *Auto-Available Split*.

Automatic Number Identification (ANI)

A general industry term referring to knowledge of the calling party number (CPN). When the calling party is behind a switch, the number provided can be either a billing number for the switch or the station identification (SID) number.

AUX

See *Auxiliary Work*.

AUX Reason Codes

AUX reason codes enable a call center to track an agent's time more precisely when the agent is in the AUX state. The agent can specify exactly why the AUX state is used, such as lunch or meetings.

Auxiliary Work (AUX)

An agent work mode. For example, the agent is engaged in non-ACD work, is on break, in a meeting, or at lunch. An agent can reach this state by pressing the AUX WORK button or dialing the proper access code from the voice terminal. The agent can also reach the state by going off-hook to make or answer an extension call while in AVAIL or with a call on hold while in AI/MI mode.

AVAIL

See *Available*.

Available (AVAIL)

An agent state in which the extension is able to accept an ACD call. The agent enters this state by selecting the AI or MI work mode.

Average Agent Service Time

The average time you are expecting or targeting each agent to spend on an ACD call, including talk time and after-call-work time.

Average Speed of Answer (ASA)

The average amount of time a caller waits before connecting to an agent. ASA is usually an objective set by your call center's management.

The actual ASA for a split/skill includes the time spent in queue and the time ringing an agent. ASA for a VDN includes the time spent in vector processing, in queue, and the time ringing an agent.

Interval ASA is used for BCMS and CMS reporting where the ASA is calculated on reporting interval boundaries and the ASA is cleared to zero at the start of each reporting interval.

See also *Rolling ASA*.

B Channel

An ISDN channel that carries voice and circuit-switched data at a bandwidth of 64,000 bits per second. It will carry packet data at 19,200 bits per second (dial-up) or 64,000 bits per second (dedicated). "B" is an abbreviation of Bearer Channel.

Backup

The process of protecting data by writing the contents of the disk to an archive (or tape) that can be removed from the computer environment and stored safely.

Basic Call Management System (BCMS)

Call center management information available on the G3 switches and the Enterprise Communications Server (ECS) that can provide statistics on a limited number of agents, splits/skills, trunk groups and VDNs.

Basic Rate Interface

An ISDN channel arrangement that provides multiple channels over the existing two-wire local loop. This service has up to three channels: one D and a maximum of two B channels.

BCMS

See *Basic Call Management System*.

BRI

See *Basic Rate Interface*.

Calculation

The abbreviated name (calculation name) for the formula calculation that generates the data for a field in a report.

Call-Based Items

The category of database items in CMS that are committed to the database after the call completes. If a call starts and ends in different intrahour intervals, all of the call-based data is recorded in the interval in which the call completed. Most database items are call-based.

Call-Handling Profile

A set of objectives describing how you want a split/skill to handle calls. Call-handling profiles are part of the Forecasting subsystem.

Call Management System (CMS)

A software product used by business customers that have Lucent Technologies telecommunications switches/ECS and receive a large volume of telephone calls that are processed through the Automatic Call Distribution (ACD) feature of the switch/ECS. The CMS collects call-traffic data, formats management reports, and provides an administrative interface to the ACD feature in the switch/ECS.

Call Prompting	A switch feature that routes incoming calls based on information entered by the calling party, such as an account number. The caller receives an announcement and is prompted to select an option from those listed in the announcement or to enter numeric information using the telephone dial pad.
Call Vectoring	A switch feature that provides a highly flexible method for processing ACD calls. A call vector is a set of instructions that controls the routing of incoming and outgoing calls based on current conditions. Examples of call vector conditions include time of day and the number of calls in queue.
Call Work Code (CWC)	An ACD capability that allows the agent to enter a string of digits during or after the call and send them to the <i>CentreVu</i> Call Management System for management reporting.
Caller Needs	The reasons a customer calls your call center.
Calls Carried	Trunk data. The number of inbound/outbound calls that occupied the trunk during a given time period.
Cancel	A CMS action that cancels the current Backup, Restore, or Migration that is in progress.
Caution Condition	A graph term. The bars in the graph report change color or intensity indicating that the data being displayed met your defined first threshold limit.
Central Office (CO)	The location housing telephone switching equipment that provides local telephone service and access to toll facilities for long-distance calling.
CentreVu Supervisor	The Call Management System application for the <i>Microsoft</i> [*] <i>Windows</i> [†] operating environment.
Change Agent Skills	An agent's skills may be changed from CMS by using the Change Agent Skills Window. Through this window a user can quickly see what skills are currently assigned to a single agent and the user can easily change a single agent's skill assignment.
Close	Users can close a window using the Close command on the Control menu. Closing an application's main window is the same as quitting it.

* Microsoft is a registered trademark of Microsoft Corp.

† Windows is a trademark of Microsoft Corp.

CMS	See <i>Call Management System</i> .
CMS Large	One of two hardware configurations for the CMS product line. This configuration has 128MB RAM, 4GB of disk storage space, and one processor.
CMS Options	The optional features available with CMS. CMS options include graphics, forecasting, and vectoring.
CMS X-Large	One of two hardware configurations for the CMS product line. This configuration has 128MB RAM, 4GB of disk storage space, and two processors.
CMSQL	A tool that allows direct queries of the historical database. This tool is the interactive interface typically used to view the <i>INFORMIX</i> database. For CMS purposes, CMSQL is used instead of <i>INFORMIX SQL</i> .
CO	See <i>Central Office</i> .
Configuration	The way that the computer is set up to allow for particular uses or situations.
CONN	See <i>Connected</i> .
Connected (CONN)	A trunk state in which a caller and an agent are connected on an ACD call.
Connected Call	A non-ACD call (that is connected to an agent through a VDN) for which <i>CentreVu</i> CMS receives an indication that the call rang or was answered.
Continue	A CMS action that resumes the suspended Restore or Migration operation.
CONVERSANT	<i>CONVERSANT</i> ® is a powerful voice response system which interacts with the caller. This system may include: automated call routing, announcement storage, message retrieval, and callback.
Copy Group or Profile	A CMS action that creates a new group or profile from an existing one.
Current	A CMS SLK that allows the user to cycle through open windows.
Current Interval	Represents the current intrahour interval, which can be 15, 30, or 60 minutes. The current interval is part of the real-time database. CMS starts collecting ACD cumulative data at the beginning of the interval (on

the hour, half-hour, or quarter hour) and continues collecting ACD cumulative data until the end of the interval. When the current interval changes, all cumulative data is cleared and CMS begins counting cumulative data again starting from zero. The length of the interval is set in the System Setup: Storage Intervals window and is called the *intrahour interval*.

Current Window	The user window in which you are actively working.
Custom Reports	Real-time or historical reports that have been customized from standard reports or created from scratch. See the <i>CentreVu CMS R3V5 Custom Reports</i> (585-215-822) document for more information.
CWC	See <i>Call Work Code</i> .
D Channel	An ISDN channel that transmits at 16,000 bits per second. The signaling information connects, monitors, and disconnects calls. It can also carry low-speed packet data at 9,600 bits per second. "D" is an abbreviation of Data Channel.
DABN	See <i>Dequeued</i> and <i>Abandoned</i> .
DACD	See <i>Direct Agent ACD</i> .
DACW	See <i>Direct Agent ACW</i> .
Daily Data	Interval data that has been converted to a 1-day summary.
Data Collection Off	CMS is not collecting ACD data. Data already collected will not be lost when turning data collection off.
Data Collection On	CMS is collecting ACD data.
Data Points	Dates of historical data used in Forecasting. A data point should include data for each interval of the working day.
Database	A group of files that store ACD data according to a specific time frame: current and previous intrahour real-time data and intrahour, daily, weekly, and monthly historical data.
Database Item	A name for a specific type of data stored in one of the CMS databases. A database item may store ACD identifiers (split numbers or names, login IDs, VDNs, etc.) or statistical data on ACD performance (number of ACD calls, wait time for calls in queue, current states of individual agents, etc.).

Database Tables	CMS uses these tables to collect, store, and retrieve ACD data. Standard CMS items (database items) are names of columns in the CMS database tables.
Date Format	The standard format for entering dates on CMS reports. Acceptable formats are: • Month/day/year (for example, 3/21/93) • A “-” offset based on today's date (for example, -1 for yesterday) • Separating individual data entry items using a semicolon (for example, 3/21/93;3/23/93;3/25/93) • Entering ranges by placing a hyphen between entries (for example, 3/21/93-3/25/93). When you specify a date for a weekly report, that date must correspond to the week start day selected in the System Setup—Storage Intervals window. If the date and day do not match, the message <i>No records found</i> displays in the status line. The month start date must be the first day of the month.
DDC	See <i>Direct Department Calling</i> .
Default Skill (Generic 2.2 with EAS)	Every skill that ends with a “0” is called a default skill, since every staffed agent in the skill group is logged into this skill by default. The default skill is the first skill for each skill group.
Delete	A CMS action that removes the entry on the window from the database.
Dequeued and Abandoned (DABN)	A trunk state in which the trunk quickly goes to idle after the caller abandons the call.
Dialed Number Identification Service (DNIS)	A network capability that identifies, for each call, the number dialed or the area from which the call originated (for example, a specific 800 number set up for a promotion).
Dictionary	A CMS subsystem that can be used to assign names to various call center elements such as login IDs, splits/skills, trunk groups, VDNs and vectors. These names appear on reports, making them easier to interpret. Dictionary also allows customized calculations to be created for use in reports.
DID	See <i>Direct Inward Dialing</i> .

Dimmed	Indicates unavailable or disabled. A dimmed menu item, button, or command is displayed in a lighter shade than the standard display and cannot be selected. <i>See Grayed Out.</i>
Direct Agent ACD (DACD)	An agent state in which the agent is on a direct agent ACD call.
Direct Agent ACW (DACW)	An agent state in which the agent is in the after call work state for a direct agent ACD call.
Direct Agent Calling	An EAS capability that makes it possible for a caller to reach the same agent every time and still include the call as an ACD call in the management tracking of the call center. This is ideal for claims processing where a client needs to speak with the agent handling the claim. This flexibility ensures a high level of customer service without reducing management control.
Direct Department Calling (DDC)	A process of selecting an agent when more than an agent is available. With DDC, the call will go to the agent closest to the top of an ordered list. (This is a non-EAS option only.)
Direct Inward Dialing (DID)	An incoming trunk used for dialing directly from the public network into a communications system without help from the attendant.
DNIS	<i>See Dialed Number Identification Service.</i>
EAD	<i>See Expert Agent Distribution.</i>
EAS	<i>See Expert Agent Selection.</i>
Entity	A generic term that refers to one of the following: Agent, Split/Skill, Trunk, Trunk Group, VDN, or Vector.
Error Message	A response from a program indicating that a problem has arisen or something unexpected has happened, requiring your attention.
EWI	<i>See Expected Wait Time.</i>
Exception	A type of activity in the ACD which falls outside the limits you have defined. An exceptional condition is defined in the CMS Exceptions subsystem, and usually indicates abnormal or unacceptable performance of the ACD (by agents, splits/skills, VDNs, vectors, trunks, or trunk groups).

Exception Reports	Display occurrences of conditions that fall outside the limits you defined.
Expected Delay	See <i>Expected Wait Time</i> .
Expected Wait Time (EWT)	An estimate of how long a caller will have to wait in queue to be served by a call center considering the current and past traffic, handling time, and staffing conditions. (Also referred to as <i>expected delay</i>.) The time spent in vector processing before being queued and the time spent ringing an agent with manual answering operation are not included in the EWT prediction. EWT is a switch-based calculation that can be used in vector processing decisions and can be viewed from CMS (release R3V4 and later). The EWT feature is available on the <i>DEFINITY</i>® G3V4 switch, and the Enterprise Communications Server (ECS) Release 5.
Expert Agent Distribution (EAD)	An EAS process that selects an agent when more than one agent is available. With EAS, a call will go to the most idle agent with the skill as primary (skill level one). If none are available, the call goes to an agent who is idle and has the skill as secondary. If none are available, the selection process continues with progressively lower skill levels until an idel agent is found.
Expert Agent Selection (EAS)	Expert Agent Selection (EAS) is an optional switch feature that builds on the power of the Call Vectoring and ACD features of the switch to match the skills required to handle a particular call to an agent who has at least one of the skills that a caller requires. Agents are assigned a single set of work mode buttons, rather than one set per skill. This simplifies the agent's interface to the work mode buttons. When the "MI" (Manual In) or "AI" (Auto In) button is lit, the agent is available to take a call in any assigned skills or, in the case of Multiple Call Handling (MCH), in any MCH skills. The ACD queuing and the vector commands <i>Queue-to-Main</i> and <i>Check-Backup</i> are used to route a call to an agent with the appropriate skill to handle that call. CMS collects data on skills in the same manner as it collects data on splits. Real-time Agent reports generally indicate the skill in which agents are currently working. Skill reports show the performance of the skill overall, displaying such items as the ASA, the number of calls, and the percentage of calls answered within the target service level for the skill. CMS also reports VDN data by VDN skill preference, so that customers can assess the call center performance relative to calls requiring particular skills. CMS reports how many calls were handled, how long these calls waited for service, and the average talk time for calls queued to a particular skill preference in a particular VDN.

Extension Call	Extension calls are any calls originated by agents and non-ACD calls received by agents. For the Generic 2.2 and Generic 3 switches and the ECS, these include calls an agent makes to set up a conference or transfer.
FBUSY	See <i>Forced Busy</i> .
FDISC	See <i>Forced Disconnect</i> .
Find One	A CMS action that searches the database for entries that match the input value and displays the matching entries one at a time.
First Threshold	A graph term for the lower limit for a particular condition in a graph report. The bar(s) change color/intensity when the defined limit is met, notifying you that a Caution condition could exist.
Forced Busy (FBUSY)	A trunk state in which the switch sends a busy signal to a caller when the call center is too busy to handle the incoming call.
Forced Disconnect (FDISC)	A trunk state in which the switch disconnects the caller.
Forced Multiple Call Handling (FMCH)	A feature available with the G3V4 switch, and the ECS, that, when activated for a split/skill, allows calls to be automatically delivered to an idle line appearance if the agent is in the Auto-In/Manual-In work mode and an unrestricted line appearance is available on the voice terminal, even if the agent is talking on an ACD call.
Get Contents	A CMS action that provides access to the members of an agent group, or to tasks on a shortcut or timetable.
Graphics	A CMS reporting option that allows you to view some reports in bar graph format. <i>CentreVu</i> Supervisor supports other graphic formats.
Grayed Out	When you do not have access to a menu or action list item, it will be grayed out (that is, dimmed or displayed in a different color from the rest of the menu or action list). See <i>Dimmed</i>.
Historical Database	A database that contains intrahour records for up to 62 days in the past, daily records for up to 5 years in the past, and weekly/monthly records for up to 10 years in the past for each CMS-measured agent, split/skill, trunk, trunk group, vector, and VDN.

Historical Reports	Reports that display past ACD data for various agent, split/skill, trunk, trunk group, vector, or VDN activities.
HOLD	A trunk state in which the agent has put the call on hold.
ICM	See <i>Inbound Call Management</i> .
IDLE	A trunk state indicating that the trunk is not in use.
II	See <i>Information Indicator</i> .
Inbound Call Management (ICM)	A set of switch and adjunct features using ASAI to enable the adjunct to provide automatic screen delivery and call routing.
Information Indicator (II)	A 2-digit code that identifies the type of originating line (for example: hotel or pay phone) for incoming ISDN PRI calls.
INFORMIX	A relational database management system used to organize CMS historical data.
INFORMIX SQL	A query language tool that is used to extract data from an <i>INFORMIX</i> [*] database. For the CMS historical database, CMSQL is used in place of <i>INFORMIX SQL</i> .
Input Field	An input field is an area on a user window into which a <i>CentreVu</i> CMS user enters one or more valid field values. For example, the valid values for the input field <i>Split</i> are integers from 1 through 255 (Generic 3r Version 2 to Version 4) and split names that have been assigned in the Dictionary subsystem.
Integrated Services Digital Network (ISDN)	A digital standard for telephony that enables, among other things, telephone, television, and computer signals on the same lines.
Interval-Based Items	A category of database items. These items generally represent the amount of time during a collection interval spent doing a particular activity. Interval-based items are updated throughout the collection interval and timing is restarted at the end of the interval. Interval-based items should only be used to show the amount of time in an interval for an activity or to calculate percentages of time spent in an interval. Interval-based items should not be used to calculate averages (such as average hold time).

* INFORMIX is a registered trademark of Informix Software, Inc.

Intrahour Interval	A 15-, 30-, or 60-minute segment of time starting on the hour. An intrahour interval is the basic unit of CMS report time.
ISDN	See <i>Integrated Services Digital Network</i> .
LAI	See <i>Look Ahead Interflow</i> .
LAN	See <i>Local Area Network</i> .
List All	A CMS action that lists all the entries that matched the current field values.
List Devices	A CMS action that lists all the devices which have been specified in the Backup/Restore Devices window.
Local Area Network	A private interactive communication network that allows computers to communicate over short distances, usually less than one mile, at high data transfer rates from 1 Mbps to as high as 100 Mbps.
Logical Agent	An EAS feature that associates the agent's login ID with the physical extension when the agent logs in. Properties such as the assigned skills, class of restriction, and coverage path are associated with the login ID rather than the physical extension. This allows agents to log in at any available set. The Logical Agent capability allows agents to be called by dialing their login IDs. Calls to login IDs may be treated as direct agent ACD calls, given the proper class of restriction, or may be treated as extension (personal) calls. Treating the calls as direct agent calls can be used to help distinguish business-related from personal calls.
LOGOFF	An agent work mode indicating that an agent has logged out and is not available to take ACD calls.
LOGON	An agent work mode indicating that an agent logged in or is staffed.
Logout Reason Codes	Logout reason codes enable an agent to specify the reason for logging out, such as the end of a shift or training.
Look Ahead Interflow (LAI)	A switch feature that can be used to balance the call load among multiple call centers. The LAI feature works with Call Vectoring and ISDN PRI trunks to intelligently route calls between call centers. This allows multiple call centers to share work loads, expands hours of coverage, and allows calls to be transparently handled by call centers in different time zones.

Maintenance	A CMS subsystem that is used for routine maintenance of the <i>CentreVu</i> CMS, such as backing up data, checking on the status of the connection to the switch, and scanning the error log.
Maintenance Busy (MBUSY)	A trunk state in which the trunk is out of service for maintenance purposes.
Manual In (MI)	An ACD work mode. The Manual In (MI) mode makes the agent available to receive an ACD call and automatically places the agent into the ACW state upon release from the call.
MBUSY	See <i>Maintenance Busy</i> .
MCH	See <i>Multiple Call Handling</i> .
Measured	A term that means an ACD element (agent, split/skill, trunk, trunk group, vector, VDN) has been identified to the switch as of interest to the CMS. The switch sends messages to CMS only for ACD elements that are measured. If the ACD element is not measured on the switch, no data is collected.
Messages	Temporary windows used only for displaying information like “field help” and syntactical field errors. Message windows cannot be moved, sized, or scrolled and do not count in the user window count. Message windows are automatically removed when you correct the error or move to the next field.
MI	See <i>Manual In</i> .
MIA	See <i>Most Idle Agent</i> .
Migration	The process of migrating CMS data when upgrading your CMS. (Execute the “R3 Migrate Data” or “R2 Migrate Data” menu item after selecting System Setup from the main menu.) Migration is sometimes necessary in order to move the customer’s data to a new release. Migration is usually, but not always, driven by a hardware platform change.
Modify	A CMS action that changes the database entry to reflect the new values entered in the given window.
Monthly Data	Daily data that has been converted to a monthly summary.

More Help	More help displays a user window containing expanded information about the current primary user window or menu selection. More help is for primary windows only, not output windows (like list all windows).
Most Idle Agent (MIA)	This is an ACD distribution method that maintains a queue of idle agents and distributes a call to the split/skill to the agent closest to the head of the queue who is not marked as “busy.” (“Busy” is defined as being in ACW, on an AUXIN/OUT call, or on an ACD call for another split/skill.) Agents in multiple splits/skills are in multiple “eligible agent” lists. There is one list for each skill. If MIA across splits/skills is enabled, agents are put at the bottom of all agent lists after completing an ACD call for any split/skill. If MIA across skills is <i>not</i> enabled, an agent who is on an AUXIN/OUT extension call from the AVAIL wait or on an ACD call for another split/skill continues to move up the list of eligible agents for other splits/skills. Agents in ACW may or may not be in the eligible agent lists, depending upon the setting of an option (ECS R5 and later).
Multi-Agent Skill Change Window	This window allows the user to perform the following administration actions: add up to 32 agents to a skill; move up to 32 agents from one skill to another; and remove up to 32 agents from a skill.
Multiple Call Handling (MCH)	Allows an agent to receive an ACD call while other calls are active on the agent's station. Unless forced MCH is in operation, the agent must put the current call on hold and press AI/MI in order to receive another ACD call.
Multiple Split/Skill Queuing	With Call Vectoring, a call can be queued to up to three splits/skills at the same time. The first agent who becomes free in any of the splits/skills gets the call.
Multiuser Mode	Any administered CMS user can log into CMS. Data continues to be collected if data collection is “on.” This is the normal CMS operating mode.
Name (Synonym) Fields	Fields in which you may enter a name (synonym) that has been entered in the Dictionary subsystem (for example, names of agents, splits/skills, agent groups, trunk groups, vectors, VDNs).
Next	A CMS action that displays the next match found following a Find One, Next, or Previous action.
Night Service	A switch capability that assists calls that come in after business hours or on weekends to be automatically rerouted to a split, an announcement, or an alternate destination specifically set up for after-hours coverage.

Nonprimary Split/Skill	When a call is queued to multiple splits/skills, the second and third splits/skills to which the call queues in a VDN are called nonprimary splits/skills. They are also referred to as secondary and tertiary splits/skills, respectively.
Nonzero (0) Skill (Generic 2.2 with EAS)	Any skill that does not end in "0" is called a nonzero skill.
Normal Condition	A graph term in which the bars in the graph report are within your defined acceptable limits.
OCM	See <i>Outbound Call Management</i> .
Open Application Interface	An open applications interface allows the same application to be supported by a wide range of products and avoids the need to develop specialized interfaces for new applications.
Open Window	A user window that remains open because you have not yet closed it with the Exit SLK. An open window becomes the current window when it initially appears on the screen or when you make it the current window using the Current SLK.
OTHER	An agent state in which the agent is working on a call for another split or skill, or has put a call on hold and has not chosen another work mode. When the link to the switch first comes up or when the agent has just logged in, the agent state is OTHER until the switch notifies CMS of the agent's state.
Outbound Call Management (OCM)	A set of switch and adjunct features using ASAI, that distributes outbound calls initiated by an adjunct to internal extensions (usually ACD agents).
PEC	See <i>Price Element Code</i> .
Percent (%) Within Service Level	The percentage of calls that were answered by an agent within a specific number of seconds. This observed percentage is used in reports as a statistical value. See <i>Acceptable Service Level</i>.
Previous	A CMS action that displays the previous match found.
Previous Interval	Represents one intrahour interval and is part of the real-time database. At the end of each intrahour interval, the contents of the current intrahour interval are copied to the previous intrahour interval portion of the real-time database.

Price Element Code (PEC)	The set of numbers that Lucent Technologies has assigned to each part that may be ordered.
Primary Skill	The skills assigned to an agent. Primary skills are the areas in which the agent has the most expertise. (This is used in G3V2 through G3V4 with EAS.) See <i>Agent Skill</i>, <i>Skill Level</i>.
Primary Window	The first window opened in response to a menu selection. A primary window may also generate another user window (secondary window). A primary window can be moved, sized, or scrolled, and counts in the window count.
Private Report	A custom or designer report that only the creator can access.
Pseudo-ACD	An area you create on your CMS to place previously backed-up ACD data. A pseudo-ACD is not a <i>live</i> (real) ACD and does not communicate with any switch.
Queue	A holding area for calls waiting to be answered in the order in which they were received. Calls in a queue may have different priority levels, in which case, calls with a higher priority are answered first.
QUEUED	A trunk state in which an ACD call has seized the trunk and is queued to a split/skill waiting for an agent to answer.
R3V2	See <i>Release 3 Version 2</i> .
R3V4	See <i>Release 3 Version 4</i> .
R3V5	See <i>Release 3 Version 5</i> .
Read Permission	The CMS user with read permission can access and view data (for example, run reports or view the Dictionary subsystem). Read permission is granted from the User Permissions subsystem.
Real-Time Database	Consists of the current and previous intrahour data on each CMS-measured agent, split/skill, trunk, trunk group, vector, and VDN.
Real-Time Reports	Reports that display current ACD call activity on agents, splits/skills, trunks, trunk groups, vectors, and VDNs for the current or previous intrahour interval. Current intrahour interval real-time reports are periodically updated as data changes during the interval. Previous

	intrahour interval real-time reports show data totals for activity that occurred in the previous intrahour interval.
Recorded Announcements	Prerecorded greetings and information played to callers as they wait for service.
Redirect On No Answer (RONA)	An ACD capability that removes an unanswered call from the voice terminal at which it is ringing, busies out the port or makes the agent unavailable, and requeues the call at top priority or sends it to a VDN.
Refresh Rate	The number of seconds CMS should wait for each update of the real-time report data. A user's fastest allowable refresh rate is defined in the User Permissions — User Data window as a minimum refresh rate. The default refresh rate when a user brings up the report input window is the administered minimum refresh rate plus 15 seconds.
Release 3 Version 2 (R3V2)	The CMS software release immediately preceding R3V4. When the term R3V2 is used in this document, it applies to the R3V2 software, regardless of the hardware platform on which it is being run.
Release 3 Version 4 (R3V4)	R3V4 can refer to a software version of <i>CentreVu</i> CMS or <i>CentreVu</i> Supervisor.
Release 3 Version 5 (R3V5)	R3V5 can refer to a software version of <i>CentreVu</i> CMS or <i>CentreVu</i> Supervisor.
RING	An agent state in which a call rings at an agent's voice terminal after leaving the queue and before the agent answers the call. (This agent state is available only with Generic 2.2, and with Generic 3 and ECS.) A trunk state in which a call is ringing at the agent's voice terminal.
Rolling ASA	Rolling ASA is a running weighted average calculation without regard to any interval boundaries. A rolling ASA calculated by the switch or ECS can be used, beginning with R3V4 CMS, for vector routing. Rolling ASA is calculated on the G3V4 switch, and the ECS, and sent to R3V4 and later CMS releases. An additional Rolling ASA calculated by the switch is also available as a real time database item for G3V4 and later G3 switches.
RONA	See <i>Redirect On No Answer</i> .
Run	A CMS action that starts the process for the given window.

Screen-Labeled Key (SLK)	The first eight function keys at the top of your keyboard that correspond to the screen labels at the bottom of your terminal screen. The screen labels indicate the function each key performs.
Scrolling	Moving backward and forward within a window in CMS.
Second Threshold	A graph term for the upper limit you enter for a particular condition in a graph report. When this limit is met, the bar(s) change color/intensity, indicating that a possible Warning condition exists.
Secondary Skill	Skills assigned to an agent. Secondary skills are the areas in which the agent does not have extensive expertise, or is not the agent's preference. (Used in G3V2 through G3V4 with EAS.) <i>See Agent Skill, Skill Level.</i>
Secondary Window	A user window that is generated from a primary window. Secondary windows can be moved, sized, or scrolled and do not count in the user window count.
SEIZED	A trunk state in which the trunk is being used for either an incoming or an outgoing call.
Select Tables	A CMS action that allows you to select specific tables to Back Up or Restore.
Service Observing—Remote	A feature that allows a user to dial into the switch and monitor a call.
Service Observing—VDNs	A feature available with the G3V4 switch and the ECS that gives a voice terminal user the ability to monitor the treatment a call receives as it is processed by a VDN, routes to another VDN or agent, or transfers to another VDN or agent.
Shortcut	A CMS capability that enables a series of tasks to run immediately on your screen. Shortcut is a fast, easy way to select windows that you might look at every day.
Single-User Mode	Only one person can log into CMS. Data continues to be collected if data collection is "on." This mode is required to change some CMS administration.
Skill	An attribute that is assigned to an ACD Agent when EAS is enabled. An agent skill is a particular expertise or speciality enabling an agent to handle a call which requires someone with that particular area of

	expertise. You define skills based on specific customer needs and call center requirements.
Skill Hunt Group	When EAS is enabled, calls route to specific skill hunt groups. These skill hunt groups are usually based on the needs of your customers. Agents are not assigned to a skill group (like split hunt groups), but agents are assigned specific skills that become active when they log in.
Skill Level	A priority level from 1 (highest) to 16 (lowest) indicating an agent's level of expertise or ability to handle calls to the given skill. (ECS Version 5 and later.)
Skill, Primary	See <i>Primary Skill</i> .
Skill, Secondary	See <i>Secondary Skill</i> .
SLK	See <i>Screen-Labeled Key</i> .
Solaris* System	See <i>UNIX System/Solaris System</i> .
SPARCserver[†] 5	See <i>Sun[‡] SPARCserver Computers</i> .
SPARCserver 10	See <i>Sun SPARCserver Computers</i> .
SPARCserver 20	See <i>Sun SPARCserver Computers</i> .
SPARCstation**	A workstation client for the <i>SPARCserver</i> .
Split	A group of extensions (referred to as agents) that receives special-purpose calls in an efficient, cost-effective manner. Calls automatically go to a split and can queue if no agents are available.
Split/Skill ACD Call	A split/skill ACD call is a call that routed to a split/skill and was answered by an agent in that split/skill.
SQL	See <i>INFORMIX SQL</i> .
Staffed Agent	An agent who is currently logged in to the switch.

* Solaris is a registered trademark of Sun Microsystems Inc.

† SPARCserver is a trademark of Sun Microsystems Inc.

‡ Sun is a registered trademark of Sun Microsystems Inc.

** SPARCstation is a trademark of Sun Microsystems Inc.

Standard Reports	The set of reports that are delivered with the CMS or <i>CentreVu</i> Supervisor software.
Station	An unmeasured voice terminal extension. An extension that is not currently staffed by an agent or that is a member of an unmeasured split/skill or hunt group.
Stop	A CMS action that stops the Restore or Migration that is in progress. Stop is also a vector command.
String Values	The descriptive words that appear on reports dealing with agents, splits/skills, and trunks. A <i>word</i> is used to describe the value of the data (for example, HOLD, AVAIL, YES, etc.).
Structured Query Language (SQL)	A language used to interrogate and process data in a relational database (such as <i>INFORMIX</i>). See <i>INFORMIX SQL</i> .
Submenu	A menu that appears as a result of a menu selection. All menu selections followed by a ">" have submenus.
Subsystem	Each CMS main menu selection (for example, Reports, Dictionary, System Setup, Exceptions, etc.) along with Timetable and Shortcut is referred to as a subsystem of the Call Management System.
Sun Microsystems	Manufactures the <i>Sun SPARCserver</i> 5, 10, and 20, the host computer for the <i>CentreVu</i> CMS R3V5.
Sun SPARCserver Computers	A host computer that is attached to a network and provides services other than simply acting as a store-and-forward processor or communication switch. The <i>Sun SPARCserver</i> 5, 10, and 20 computers are capable of hosting the CMS application software.
Switch	A private switching system providing voice-only or voice and data communications services (including access to public and private networks) for a group of terminals within a customer's premises.
System	A general term for a computer and its software and data.
System Setup	A CMS subsystem that allows users to initialize their CMS (for example, selecting the size of the intrahour interval based on how much data storage will be used for CMS data).
Technical Service Center	Provisioning, maintenance, and helpline support for Lucent Technologies call center customers.

Terminal	A combination of monitor (video display) and keyboard used to communicate with a computer to enter and display information. See <i>Agent Terminal</i>.
Tertiary Split/Skill	Generic 3 and ECS with vectoring, Generic 2.2 with EAS only. When a call is queued to multiple splits/skills, the third split/skill the call queued to in a VDN is called the tertiary split/skill.
Time Format	The standard format for entering times on CMS reports. Acceptable formats are: • A 12-hour time format with AM/PM (for example, 7:30AM, 5:00PM). • A 24-hour time format (for example, 7:30, 17:00). • A “-” offset based on the current interval date (for example, -1 for the previous hour or -0:30 for the previous half hour interval).
Timetable	A task or group of tasks (such as reports) scheduled for completion at a time that is convenient and nondisruptive for your call center's operation.
Translations	A CMS action that requests a full set of information about measured entities from the switch.
Trunk	A telephone line that carries calls between two switches, between a Central Office (CO) and a switch, or between a CO and a phone.
Trunk Group	A group of trunks that are assigned the same dialing digits — either a phone number or a Direct Inward Dialed (DID) prefix.
TSC	See <i>Technical Service Center</i>.
UCD	See <i>Uniform Call Distribution</i>.
Uniform Call Distribution (UCD)	A process that selects an agent when more than one agent is available. With UCD, the most idle agent for the skill/split receives the call. See <i>Direct Department Calling</i> and <i>Expert Agent Distribution</i>.
UNIX* System/ Solaris System	A multi-user computer operating system that supports CMS. A user can access the <i>UNIX</i> system from the Commands SLK.
UNKNOWN	An agent state in which CMS does not recognize the current state.

* UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

A trunk state in which CMS does not recognize the state of the trunk.

UNSTAF See *Unstaffed*.

Unstaffed (UNSTAF) An agent state in which the agent is not logged in and, therefore, is not being tracked by CMS.

Update A process used to modify a customer's existing software release in order to give the customer additional functionality or to fix a problem. The update process involves downloading CMS update files from a cartridge tape to hard disk, and installing the new files.

Upgrade A process used to move an existing CMS customer from one release/load to another, giving the customer the additional functionality provided in the new release. Depending on which release the customer is upgrading from, and to, the upgrade may involve upgrading the software only, or may involve upgrading software and hardware. When an upgrade involves a major release, then data migration may be a necessary part of the upgrade procedure.

User ID The login ID for a CMS user.

User Permissions A CMS subsystem that allows the CMS administrator to define user access permissions.

User Window A window you can move, size, or scroll. It may contain input fields, reports, or help information.

VDN See *Vector Directory Number*.

VDN Counted-Calls Also known as counted-calls to VDN and active VDN calls. A Call Vectoring capability available with the G3V4 switch and the ECS. Counted-calls to VDN is a parameter of the "go to step" and "go to vector" commands that provides conditional branching (to a different step in the same vector or to a different vector) based on the number of incoming trunk calls currently in a VDN (in vector processing or at an agent).

VDN of Origin Announcement (VOA) A short announcement that is assigned to a VDN through switch administration. The VOA identifies the origin or purpose of a call for the call center agent who answers the call.

VDN Skill Preference A prioritized list of agent skills assigned to a VDN. Up to three skills can be assigned. VDN skill preferences are referred to in the vector as "1st,"

	“2nd,” and “3rd.” Vectors use VDN skills to queue calls based on your preference. CMS tracks calls by VDN skill preference.
Vector	A list of steps that process calls in a user-defined manner. The steps in a vector can send calls to splits/skills, play announcements and music, disconnect calls, give calls a busy signal, or route calls to other destinations. Calls enter vector processing via VDNs, which may have received calls from assigned trunk groups, from other vectors, or from extensions connected to the switch.
Vector Command	A vector step that describes the action to be executed for a call (for example, “Queue to main”, “check backup”, “disconnect”).
Vector Directory Number (VDN)	An extension number that enables calls to connect to a vector for processing. A VDN is not assigned an equipment location. It is assigned to a vector. A VDN can connect calls to a vector when the calls arrive over an assigned automatic-in trunk group, dial-repeating (DID) trunk group, or ISDN trunk group. The VDN by itself may be dialed to access the vector from any extension connected to the switch.
Vector Step	One processing step in a vector. A vector step consists of a command and one or more conditions or parameters.
Vector Step Condition	A condition accompanying a vector command that defines the circumstances in which the command will be applied to a call.
VOA	See <i>VDN of Origin Announcement</i>.
Voice Response Unit (VRU)	A switch that routes calls to a VRU adjunct computer that provides interactive voice related services to inbound callers.
Voice Terminal	A telephone set, usually with buttons, that gives an agent some control over the way calls are handled.
VRU	See <i>Voice Response Unit</i>.
Warning Condition	A graph term. The bars in the graph report change color or intensity indicating that the data being displayed met your defined second threshold limit.
Weekly Data	Daily data that has been converted to a weekly summary.
Window	Any rectangle on your CMS screen that encloses a menu, data entry fields, reports, or messages.

Window Count	The number of primary windows that can be open at any one time.
Write Permission	The CMS user can add, modify, or delete data and execute processes. Write permission is granted from the User Permissions subsystem.
Zero (0) Skill (Generic 2.2 with EAS)	Every skill that ends with a “0” is called a zero skill. The zero skill is the first skill for each skill group. This is the same as the default skill.

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