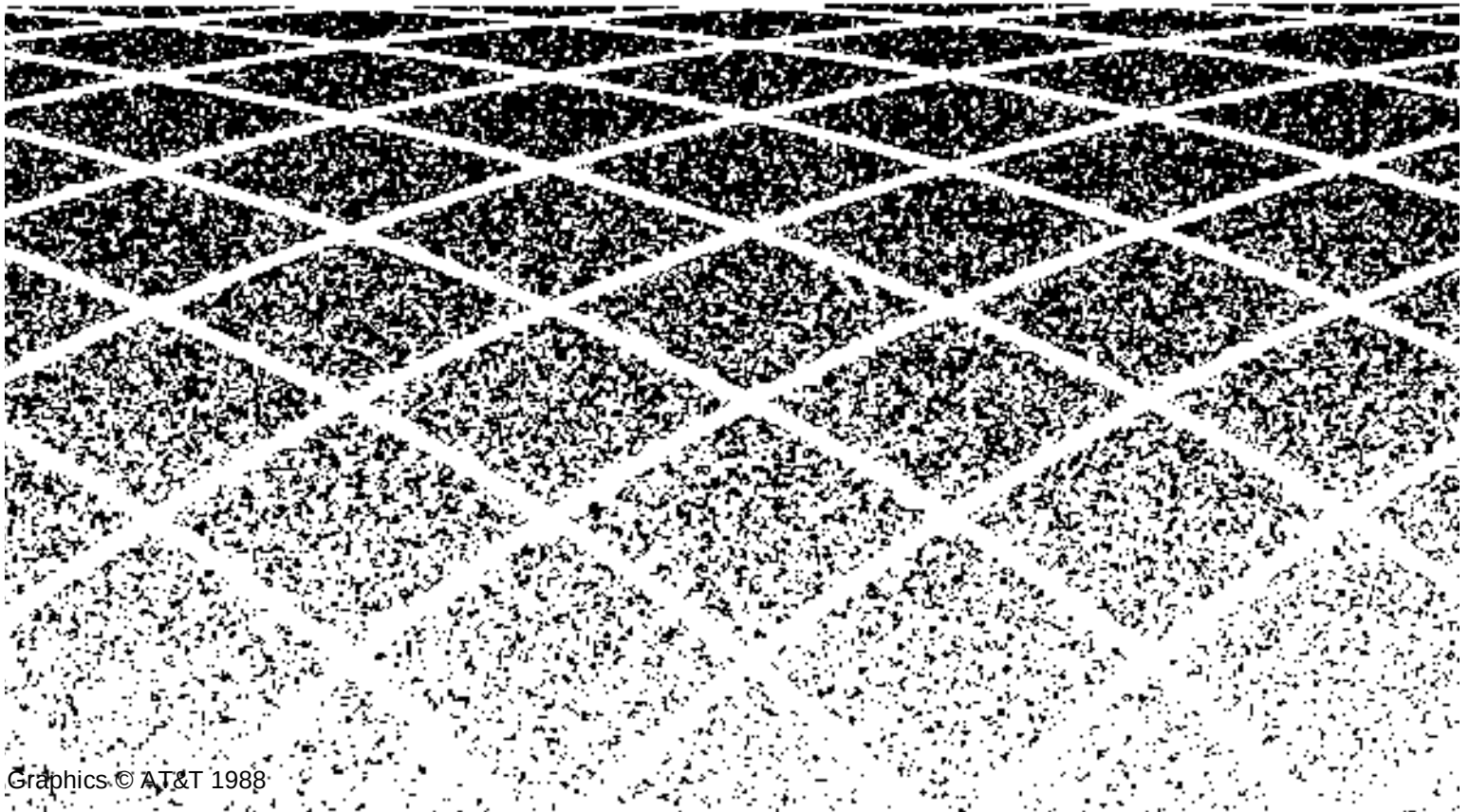




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***CentreVu*TM**
Call Management System
Release 3 Version 4
Administration



CentreVu Call Management System

Release 3 Version 4

Administration

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General Information

Audience

This book is written for all *CentreVu*™ Call Management System Release 3 Version 4 (*CentreVu* CMS) administrators and split/skill supervisors. Some sections of the book are also useful for standard users. At the beginning of each chapter is an Audience section that defines who that chapter is written for.

Switch Audience

If you are implementing R3V4 for the first time, you have a Generic 3 Version 4 (G3V4) switch. If you upgraded an earlier version of CMS to *CentreVu* CMS, you may have a Generic 2 (G2), Generic 1 (G1), System 85, or an earlier Generic 3 (G3) switch.

This book specifically addresses the G3V4 switch 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.

Introduction

The *CentreVu*™ CMS R3V4 Administration (AT&T 585-215-800) 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 D, "ACD Basics".

Organization and Use of This Document

Organization of Document

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 **Real-Time Reports**—tells you how to order standard real-time reports on call center activity.

Chapter 4 **Historical Reports**—tells you how to order standard historical reports on call center activity.

Chapter 5 **Timetable and Shortcut**—tells you how to schedule the execution of tasks (such as forwarding calls, 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 6 **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 within splits/skills.

Chapter 7 **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. 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 8 **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 (*DEFINITY*® Communications System 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 System 85); and define Call Work Codes.

Chapter 9 **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 split/skill, trunk group, ACD, VDN, and Vector access permissions within your call center.

Chapter 10 **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 multiuser 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; specifying what agent data and how much agent data will be stored for later use in the historical Agent Trace report; adding Main Menu items; and migrating data from R2 CMS to *CentreVu* CMS and R3.0 CMS to *CentreVu* CMS.

<i>Chapter 11</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 12</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 D</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 System 85/Generic 2 Features —describes how the <i>CentreVu</i> CMS Vectoring feature works with the Call Vectoring feature on Generic 2 and System 85 switches.
<i>Appendix E</i>	CentreVu CMS and the Expert Agent Selection Feature —describes the Expert Agent Selection (EAS) feature for the G3V4, G3V2, and G2.2 switches. 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 of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

Note

For a description of the *CentreVu* CMS Custom Reports subsystem, see the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document.

If you have the Forecast feature of CMS, refer to the *CentreVu™ CMS R3V4 Forecast* (AT&T 585-215-812) document to learn how to use the system and read the reports.

Use of Document

You will use this document differently, depending on the type of *CentreVu* CMS user you are. Find the category below that most closely fits your role in using the *CentreVu* CMS in your call center.

Administrator

If you are a *CentreVu* CMS administrator and are responsible for administering the System Setup and User Permissions subsystems, performing any *CentreVu* CMS *UNIX* system-/*Solaris* system-related actions, and assisting users with any system problems, use the document as an extensive reference guide that contains all of the system information you need to help you do your job.

You might need to use Appendix E, "Getting Started," to help you set up your *CentreVu* CMS and get users initiated.

You will use all parts of this book, especially Chapter 7 (Exceptions), Chapter 8 (ACD Administration), Chapter 9 (User Permissions), Chapter 10 (System Setup), and Chapter 11 (Maintenance).

Split/Skill Supervisor

If you are a *CentreVu* CMS split/skill supervisor with read-write permissions to the ACD Administration, Custom Reports, Dictionary, Reports, Exceptions, and Timetable subsystems, use the document to help you run real-time, historical, and exception reports and look at *CentreVu* CMS data.

You will find Chapter 3 (Real-Time Reports), Chapter 4 (Historical Reports), Chapter 5 (Timetable and Shortcut), Chapter 6 (Dictionary), Chapter 7 (Exceptions), and Chapter 8 (ACD Administration) the most useful.

For information on the reports you generate, refer to the *CentreVu*™ CMS *R3V4 Reports* (AT&T 585-215-801) document.

Standard User

If you are a *CentreVu* CMS User with read-write permissions to the Custom Reports and Reports subsystems, use the document to help you run real-time, historical, and exception reports.

You will find Chapter 2 (User Basics), Chapter 3 (Real-Time Reports), and Chapter 4 (Historical Reports) the most useful.

For information on the reports you generate, refer to the *CentreVu*™ CMS *R3V4 Reports* (AT&T 585-215-801) document.

Conventions Used in This Document

The following conventions are used throughout this document:

- Related document callouts

Include the document number (if an AT&T publication) and the book title, in italic. For example, see the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) 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.

Terminology

The following terms are used throughout this book. For additional *CentreVu* CMS definitions, please refer to the *Glossary*.

Current Interval	The current interval is a set number of minutes (15, 30, or 60), and is part of the real-time database. <i>CentreVu</i> 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 ACD cumulative data are cleared, and <i>CentreVu</i> 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 <i>intrahour interval</i> .
Custom Reports	Real-time or historical reports that have been customized from standard reports or created from scratch. See the <i>CentreVu™ CMS R3V4 Custom Reports</i> (AT&T 585-215-802) document for more information.
Daily Data	Interval data that has been converted to a 1-day summary.
Exception Reports	Display occurrences of unusual call-handling events.
Historical Database	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 for each <i>CentreVu</i> CMS-measured agent, split/skill, trunk, trunk group, vector, and VDN.
Historical Reports	Display past ACD data for various agent, split/skill, trunk, trunk group, vector, or VDN activities.
Monthly Data	Daily data that has been converted to a monthly summary.

Multiuser Mode	Any administered <i>CentreVu</i> CMS user can log into <i>CentreVu</i> CMS. Data continue to be collected if data collection is “on.” This is the normal operating mode for <i>CentreVu</i> CMS.
Previous Interval	One intrahour interval. 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.
Real-Time Database	Current and previous intrahour data on each <i>CentreVu</i> CMS-measured agent, split, trunk, trunk group, vector, and Vector Directory Number (VDN).
Real-Time Reports	Display current ACD call activity on agents, splits/skills, trunks, trunk groups, vectors, and VDNs.
Single-User Mode	Only one person can log into <i>CentreVu</i> CMS. Data continue to be collected if data collection is “on.” This mode is required to change some <i>CentreVu</i> CMS administration.
Subsystem	Each <i>CentreVu</i> CMS Main Menu selection (for example, Reports, Dictionary, System Setup, Exceptions, along with Timetable and Shortcut) is referred to as a subsystem.
Weekly Data	Daily data that has been converted to a weekly summary.

Changes in the Administration Book

If you have used the Release 3 Version 2 (R3V2) CMS Administration book, you will notice some changes in the presentation of information in the *CentreVu™ CMS R3V4 Administration* book. The changes are outlined below.

Reports

The report examples and descriptions of report columns/rows have been removed from the Administration book. They are now located in the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-802) document.

The input screens and field descriptions for all reports are still located in the Administration book.

Database Items and Calculations

The Database Items and Calculations (previously Appendix A) has been relocated to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-802) document.

Forecast

Forecasting, Chapter 14 in the R3V2 book, has been taken out of the *CentreVu™ CMS R3V4 Administration* document. If you have the Forecast feature, you should have received the *CentreVu™ CMS R3V4 Forecast* (AT&T 585-512-812) document.

Getting Started

Getting Started, Chapter 3 in the R3V2 book, has been reworked and relocated. The login/logout information is now in Chapter 2, “User Basics,” and the Getting Started Worksheets are now an appendix.

Vectoring

The tables that show the allowed values for the vectoring commands have been reworked, and a table for Generic 3 Version 4 switches has been added. These tables are in Chapter 8.

Related 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.

***CentreVu* CMS Documents**

AT&T publishes the following *CentreVu* CMS documents:

- AT&T 585-215-800— *CentreVu™ CMS R3V4 Administration*
- AT&T 585-215-801 — *CentreVu™ CMS R3V4 Reports*
- AT&T 585-215-802 — *CentreVu™ CMS R3V4 Custom Reports*
- AT&T 585-215-803 — *CentreVu™ CMS R3V4 Change Description*
- AT&T 585-215-804 — *CentreVu™ CMS External Call History Interface*
- AT&T 585-215-806 — *CentreVu™ CMS R3V4 Upgrades and Migrations*
- AT&T 585-215-807 — *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance*
- AT&T 585-215-808 — *CentreVu™ CMS R3V4 Sun® Connectivity Diagram*
- AT&T 585-215-809 — *CentreVu™ Supervisor User's Manual*
- AT&T 585-215-810 — *CentreVu™ Supervisor Installation and Getting Started*
- AT&T 585-215-811 — *CentreVu™ Supervisor Report Designer*
- AT&T 585-215-812 — *CentreVu™ CMS Forecast*

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.

General Information

Audience

Chapter 1 is written for the *CentreVu*™ Call Management System (*CentreVu* CMS) administrator, split/skill supervisors, and all standard users.

Introduction

This book gives you the information you need to administer the *CentreVu* CMS software package.

This chapter outlines:

- The *CentreVu* CMS software package
- The four basic uses of *CentreVu* CMS (Using *CentreVu* CMS Daily)
- ACD/CMS parameters
- How *CentreVu* CMS stores and tracks data
- Supported *CentreVu* CMS user hardware
- The *CentreVu* CMS Main Menu and screen-labeled keys
- Available *CentreVu* CMS training
- *CentreVu* CMS Helpline information.

Description of *CentreVu* CMS

The *CentreVu* CMS is a software product used by businesses and organizations that have an AT&T telecommunications 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 D 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 of Novell, Inc.

† *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
- AT&T *StarServer*[®] S
- AT&T 6386 WGS 33/S
- AT&T 6386 WGS 25/S
- *Sun*^{*} *SPARCserver*[†] 20
- *Sun* *SPARCserver* 10
- *Sun* *SPARCserver* 5.

Required Software

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

- HSI/S 2.0
- *INFORMIX*-SE 5.01
- 1.0 Network Terminal Server (If running on a *Sun*)
- *UNIX* System V Release 4 operating system (for *CentreVu* CMS running on *Intel*[‡] platforms)
- Solaris 2.4 (for *CentreVu* CMS running on Sun platforms)
- SunLink[§] X.25 Network Interface Software Version 8.01. (for *CentreVu* CMS running on Sun platforms).

* 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.

§ SunLink is a trademark of Sun Microsystems Inc.

Supported Switch Releases

The *CentreVu* CMS is certified to run with the following AT&T switches:

- System 85 R2V4 Release 2.3 (QPPCN 560DR) and later
- *DEFINITY*® Communications System Generic 1.1 (G1.1) Release 7.1 (QPPCN 559DR) and later
- *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).

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. If your system was configured with more than one ACD, a separate copy of the *CentreVu* CMS file structure under different *UNIX* system/*Solaris* system directories was established for each ACD. These *CentreVu* CMS file structures are in the */cms/acd1*, */cms/acd2*, */cms/acd3*, and */cms/acd4* directories.

References to multiple ACDs in this document refer to multiple-switch configurations. If you have only one switch, you can ignore multiple-ACD considerations because your data is always in the */cms/acd1* directory.

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 R3V4 Sun® SPARCserver™ Computers Installation and Maintenance* (AT&T 585-215-807) document (if you have a *Sun*) or the *CMS R3V2 Installation and Maintenance* (AT&T 585-215-122) document (if you have an *Intel* platform) for information about other terminal requirements and for troubleshooting.

CentreVu CMS supports a combination of up to 60 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:

- Okidata OL183 parallel
- Okidata OL184 80 column serial dot matrix
- Okidata OL321 120 column serial dot matrix
- 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 supports a combination of up to 60 printers and terminals.

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 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 8 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 System 85, 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 both 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 G3 Vectoring is in Appendix B. A description of G2/System 85 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 8.

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 the 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 G3V4, G2.2, and G3V2 have different EAS capabilities. See Appendix E 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, 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.

Refer to Chapter 3 and Chapter 4 of this book for information on generating graph reports. The *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document shows examples of each graph report and describes each report column/row.

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 R3V4 Forecast* (AT&T 585-215-812) document for more information on forecasting.

Using *CentreVu* CMS Daily

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

- Generate reports (real-time, historical, exceptions, and forecast reports) from call data collected from your call center's ACD(s).
- Configure the splits in your call center.
- Administer 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.
- Maintain the *CentreVu* CMS.

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

Generate 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, 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 R3V4 Custom Reports* (AT&T 585-215-802) 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 (Chapter 6, Chapter 7, Chapter 8, and Chapter 10)
- Ordering (Chapter 3, Chapter 4, Chapter 7) and scheduling (Chapter 5) report output
- Assigning names to agent login IDs, splits, trunk groups, ACDs, and Vectors/VDNs (if you have the Vectoring feature) to replace numeric values in reports for more meaningful displays (Chapter 6).

Configure 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
	G1, G3	Not available.
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
	G1, G2.2	Not available.
Create special reporting groups — Agent Groups that are reported independently of existing split assignments.	Dictionary	Agent Group

Administer 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 and exceptions.	Split 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

Maintain *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 the connection of printers and terminals to the system.	Commands SLK	<i>UNIX</i> system/ <i>Solaris</i> system

ACD/CMS Parameters

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

- Table 1-1—shows call center capacities for newer AT&T Switches
- Table 1-2—shows call center capacities for older AT&T Switches
- Table 1-3—shows maximum capacities supported by *CentreVu* CMS.

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

Table 1-1: Call Center Capacities for AT&T 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	<u>V2</u> <u>V3</u>		<u>V2</u> <u>V3</u>		<u>V2</u> <u>V3</u>	
-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 1-2: Call Center Capacities for AT&T System 85, G2, and G3V1 Switches

Item	System 85 R2V4	G2.1/G2.2 without EACD [*]	G2.2 with EACD/G2.2 with EAS [†]	G1.1	G3vs/s V1 ABP/PBP	G3i V1/V1.1	G3r V1/V1.1
Agents per System	1,024	1,024/ 2,048	2,048/ 5,115	500	150	500	3,000
Agents per Split	1,024	1,024	1,024	200	150	200	999
Skills	NA	NA	NA/600	NA	NA/24	NA	NA
Splits	60	60	60	99	12/24	99	99
Trunk Groups	982	982	982	99	16/32	99	666
Trunks	6,000	6,000	6,000	400	50/100	400	4,000
Multiple Call Handling -On Request	YES	YES	YES	NO	NO	NO	NO
Vectors	128	128	511	NA	NA/48	256	512
VDNs	32,000 [‡]	32,000 [‡]	32,000 [‡]	NA	NA/100	500	3,000
Priority Levels -Without Vectoring -With Vectoring	2 4	2 4	2 4	2 NA	2 4	2 4	2 4
Queue Slots per Split	NA [§]	NA [§]	NA [§]	200	200	200	999
Queue Slots (Split) per System	NA [§]	NA [§]	NA [§]	1,000	200	1,000	6,000/ 10,500
Recorded Announcements -Without Vectoring -With Vectoring	61 84	61 84	61 255	64 NA	128 NA/128	128 128	256 256
Integrated Annc. Boards	NONE	NONE	NONE	1	1	1	1
Rec.Annc. Queue Slots -Integrated Annc. Board -Analog and Aux. Trunk	NA NA [§]	NA NA [§]	NA NA [§]	50 150	50 50	50 150	300 300
Rec. Ann. Calls Connected per Annc. -Integrated Annc. Board -Analog Port -Aux. Trunk	NA NA 255	255 NA 255	255 NA 255	5 5 5	5 5 5	5 5 5	255 128 255

* EACD = Enhanced ACD features and capabilities.

† EAS = Expert Agent Selection.

‡ On System 85 and 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 System 85 and 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 1-3: CentreVu CMS Maximum Capacities

Item	System 85 R2V4	G2.1	G2.2/EAS	G1.1	G3i V1	G3r V1	G3r V2, V3, V4	Total CMS*
Agent Positions [†]	1,023	1,023	1,023/5,115	400	400	1,023	5,200	5,200
Agent Traces Active	25	25	25	25	25	25	25	25
Agent Trace Records	999,999	999,999	999,999	999,999	999,999	999,999	999,999	999,999
BHCC (ISDN system) [‡]	25,000	25,000	40,000	5,700	7,000	40,000	40,000	40,000
Call Records (internal)	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
CWCs [§]	0	0	1,999	0	1,999	1,999	1,999	1,999
Exception Records	2,000	2,000	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	10,000	10,000
Login/Logout Records	999,999	999,999	999,999	999,999	999,999	999,999	999,999	999,999
Splits/Skills	60	60	60/600	99	99	99	255	600
Trunk Groups	255	255	255	99	99	255	666	666
Trunks (measured and unmeasured)	4,000	4,000	4,000	400	400	4,000	4,000	4,000
VDNs (measured)	2,000	2,000	2,000	NA	500	2,000	2,000	2,000
Vectors	128	128	511	NA	256	512	512	2,048
Vector Steps	15	15	15	NA	15	15	32	32

* 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 splits *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 splits, 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 only be logged into four splits simultaneously. *CentreVu* CMS always creates space in real-time data storage for six agent splits (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 1-3 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 1-3 — **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 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 R3V4 Forecast* (AT&T 585-215-812) 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.

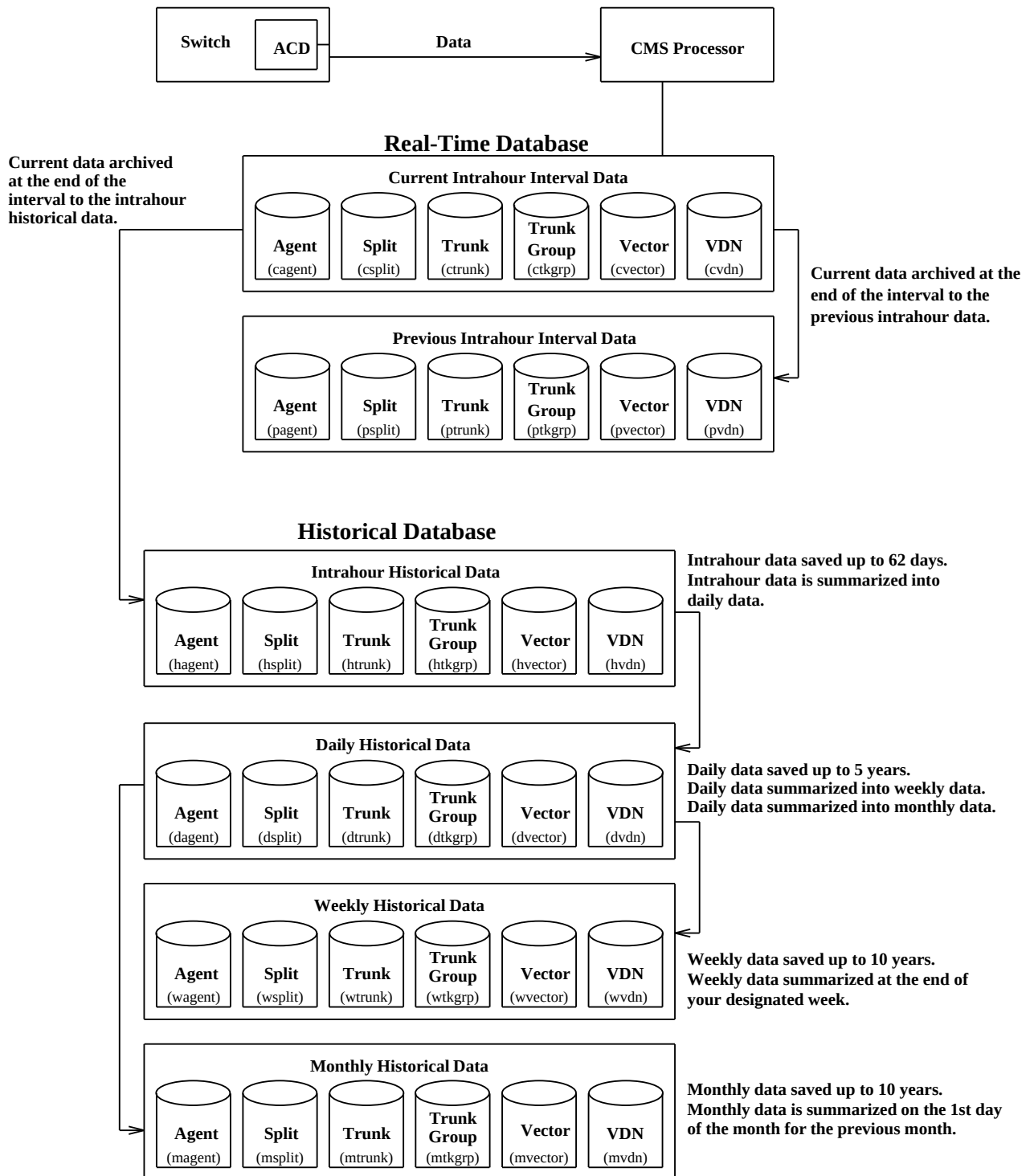
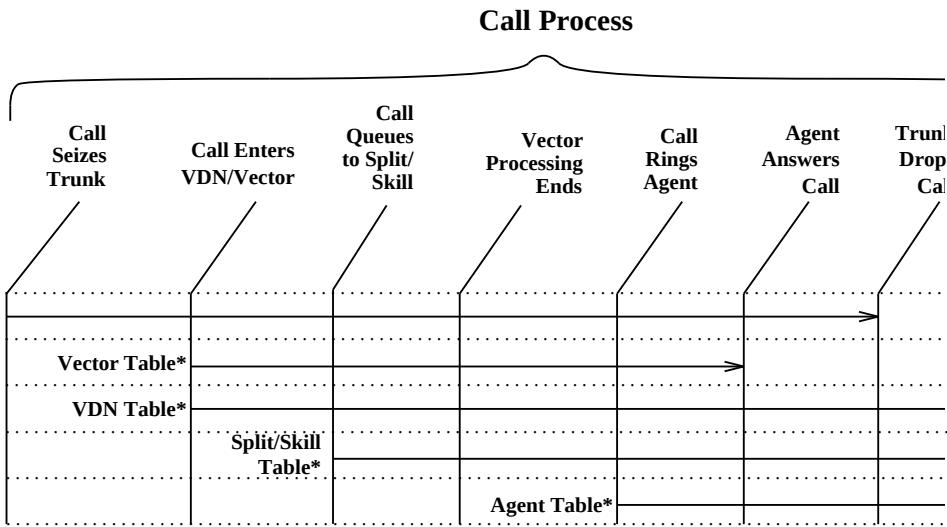


Figure 1-1: How CentreVu CMS Stores Data

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.
- 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.

CentreVu CMS Main Menu with Subsystem Menus

Table 1-4 lists the items that appear on the *CentreVu* CMS Main Menu (items in **bold**) and Subsystem menus. This listing assumes that you have purchased the Vectoring, Graphics, and Forecast features of CMS and the Expert Agent Selection (EAS) feature on the switch.

Table 1-4: *CentreVu* CMS Menus Quick Reference

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
Status	Summary	Calculations	Agent Exceptions
Report	Split/Skill	Constants	Split/Skill Exceptions
Call Profile	Attendance	Database Items	Trunk Group Exceptions
Agent Report	Group Attendance	Agent String Values	Vector Exceptions
Agent Group Report	Login/Logout (Split & Skill)	Split/Skill String Values	VDN Exceptions
Queue/Agent Status	Trace	Trunk String Values	Other Exceptions
Queue/Agent Summary	Event Count	Standard CMS Items	Malicious Call Trace
Trunk Group Report	Group Summary	Custom Items	Data Collection
Event Count Summary	In/Outbound Call	ACDs	Administration
Multi-ACD Report	Split/Skill	Splits/Skills	Agent Exceptions
Graph	Status	Trunk Groups	Split/Skill Exceptions
Split/Skill	Reports	Global Search	Trunk Group Exceptions
Queue	Summary	Report	Vector Exceptions
Split/Skill Call Profile	Call Profile	Call Work Codes	VDN Exceptions
VDN Call Profile	Outbound	VDNs	
Vector Report	Forecast Summary	Vectors	
VDN	System		
Report	System		
Call Profile	Multi-ACD		
Skill Preference Report	Multi-ACD by Split		
	Trunk/Trunk Group		
	Trunk		
	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 1-4: CentreVu CMS Menus Quick Reference (Continued)

Forecast	ACD Administration	Custom Reports	System Setup
Reports	G2	Real-time	Switch Setup
Longterm	Move Agent Extensions	Historical	Pseudo-ACD Setup
Financial	Trunk Group Assignments	Edit Report	Load Pseudo-ACD
Current Day	Split Parameters (No Vectoring)		Data Storage Allocation
Intraday	Split/Skill Call Profile Setup		Free Space Allocation
Special Day	Activate Agent Trace	User Permissions	Storage Intervals
Agent Positions Required	List Agents Traced	User Data	Agent Trace Record Contents
Trunks Required	Configuration Reports	Feature Access	Main Menu Addition
Trunk Performance	Split Members	Main Menu Addition Access	CMS Status
Hypothetical	Trunk Group Members	Split/Skill Access	Data Summarizing
Data	Vector	Trunk Group Access	Data Collection
Copy Historical Data	Call Work Codes	ACD Access	R3 Migrate Data
Edit Values	VDN Assignments	Vector Access	R2 Migrate Data
Report	Change VDN Skill Preferences	VDN Access	
Financial Report	VDN Assignments		Maintenance
Administration	Change VDN Skill Preferences		Back Up Data
Call Handling Profiles	VDN Call Profile Setup		Restore Data
Costs Profiles	Vector Contents		Backup/Restore Devices
Trunk Group Profiles	Split References in Vectors		Printer Administration
Current Day Configuration	(Not available with EAS)		Connection Status
Special Days			ACD Status
Data Storage Allocation	G3V2 EAS		Archiving Status
Forecast Manager	Change Agent Skills		Error Log Report
	Trunk Group Assignments		Forecast Manager
	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		
	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		

Screen-Labeled Keys with Menus and Submenus

Screen-labeled keys (SLK) 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 menus and submenus. Chapter 2 includes descriptions of each SLK. The (Exit), (Current), (Scroll) and (MainMenu) SLKs do not have menus.

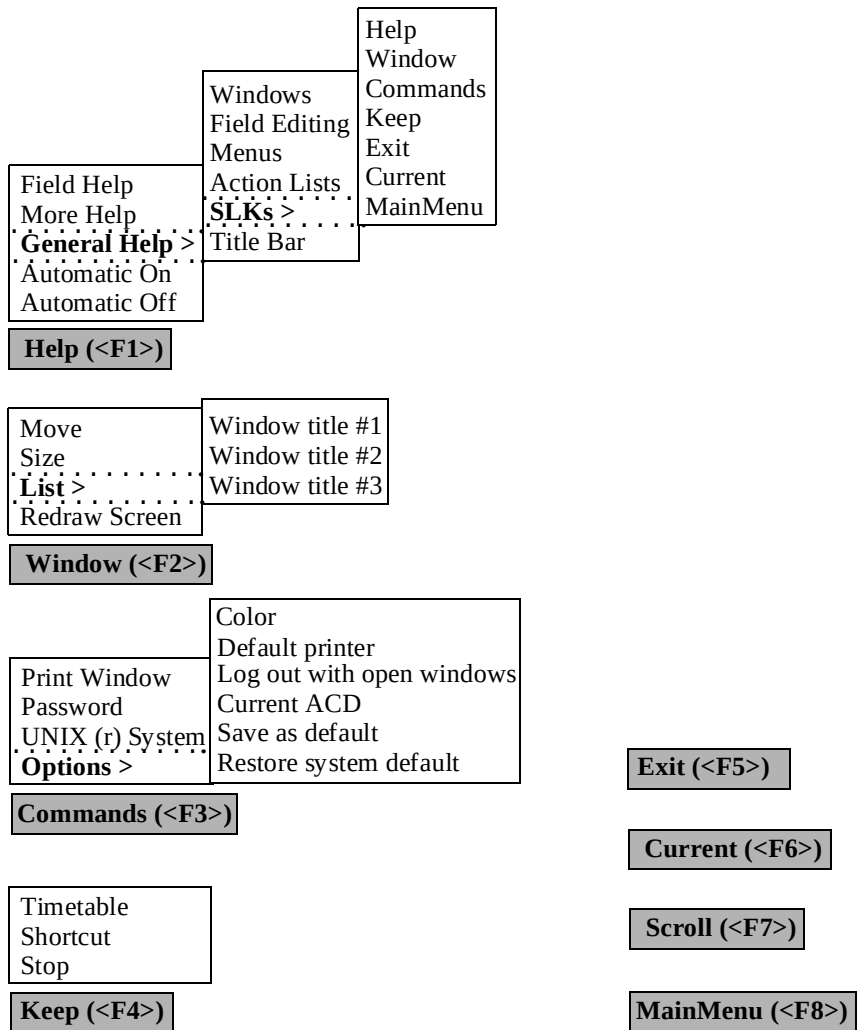


Figure 1-3: SLK Menus Quick Reference

Helpline/Escalation

If you have a problem with the *CentreVu* CMS software, call the **AT&T ACD/CMS Helpline on 1-800-344-9670** to report the problem and obtain a trouble ticket number.

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 R3V4 problem,” and be prepared to give the following information:

- Your full name, your organization, and a phone number where AT&T can contact you concerning the trouble
- The Installation Location (IL) number
This is a 10-digit number from an AT&T 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 AT&T, 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 (not per ACD). Your AT&T Project Manager should call 1-800-255-8988 to schedule the appropriate classes for you.

The available *CentreVu* CMS training courses are shown in Table 1-5. 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 1-5: *CentreVu* CMS Training

Course Number	PEC	Course Name	Description
BC1054A	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.
BC1055A	1426-012	<i>CentreVu</i> CMS 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.
BC1056A	1426-13	<i>CentreVu</i> CMS 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.
BC1057A	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.
BC1520A	1462-021	<i>CentreVu</i> Supervisor for Split Supervisors	A 1-day course that provides training on split supervisor tasks using <i>CentreVu</i> Supervisor, a Graphical User 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, you will receive an EAS self-paced training package called “Designing a Call Center with EAS.”

You should have also received the *CentreVu™ CMS R3V4 Change Description* (AT&T 585-215-803) document which covers the differences between Release 2 3B CMS, R3 CMS, R3V2 CMS, and *CentreVu* CMS.

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 (for example, 386, 486, 3332 processors)
- 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
- Call Vectoring.

General Information

Audience

Chapter 2 is written for the *CentreVu*™ Call Management System (*CentreVu* CMS) administrator and all users.

Introduction

This chapter explains the *CentreVu* CMS 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 the CentreVu CMS
- Logging Out of the 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 (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 a fatal 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 255 (Generic 3r Version 2 or later) and split names that have been assigned in the Dictionary subsystem.
Main Menu	The first menu that appears after you log in to <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 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.

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 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 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 Main Menu 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 the *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, do the following:

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

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

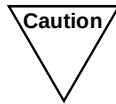
Note Your password must contain at least six characters. Also, at least one character must be a number or special character, and at least two characters must be alphabetic.

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

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.

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 out other than at the beginning and end of their shifts. Agents should use AUX WORK for short periods away from their positions. This alternative keeps the intrahour agent table files from becoming overfilled with logout/login pegs, and saves disk space.

Generic 2/System 85

Login

To log into an ACD agent position, follow these steps:

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. Press the appropriate button to disconnect your voice terminal from the line. → *You hear a dial tone.*
4. 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.*
5. Press the appropriate button to disconnect your voice terminal from the line. → *The agent position is now in the AUX state.*

Note

With EAS on Generic 2.2, agents can add skills.

Logout

To log out from an ACD agent position, follow these steps:

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 logoff 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).

Generic 1 and Generic 3

Login (non-EAS)

To log into an ACD agent position, follow these steps:

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.*

Login (with EAS)

To log into an ACD agent position, follow these steps:

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. The number must be the 1- to 5-digit login ID administered on the switch. → *If you hear dial tone or confirmation tone, go to Step 5.*
4. Optional: 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

To log out from an ACD agent position, follow these steps:

1. Select an idle call appearance. → *You hear a dial tone.*
2. Dial the log-out 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.*



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).

Temporarily Leaving a Headset-Equipped Position

If you want to leave your position temporarily, taking your headset with you, follow these steps.

1. Press AUX WORK.
2. Pull out your headset from the voice terminal.
(This places the position in AUX WORK, and no ACD calls will be distributed there.)

Note

Unstaffing the position or pulling the headset out without going into AUX WORK are not recommended procedures. The first action creates an unnecessary record in the agent file; the second can leave the position available.

Logging Out of the *CentreVu* CMS

1. Select Logout on the Main Menu, and press **Return**.

→ *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.*

CentreVu CMS Screen Layout

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

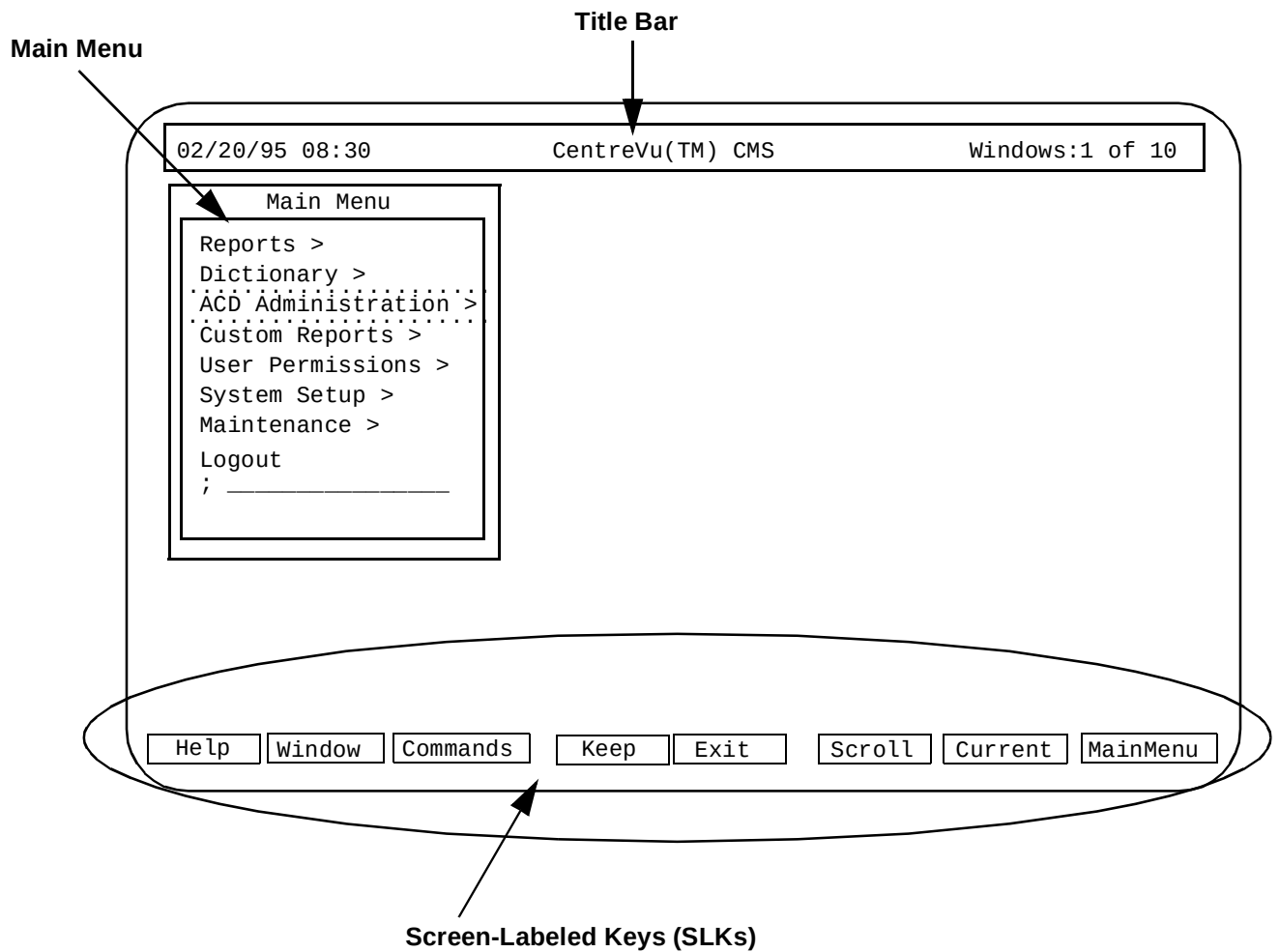
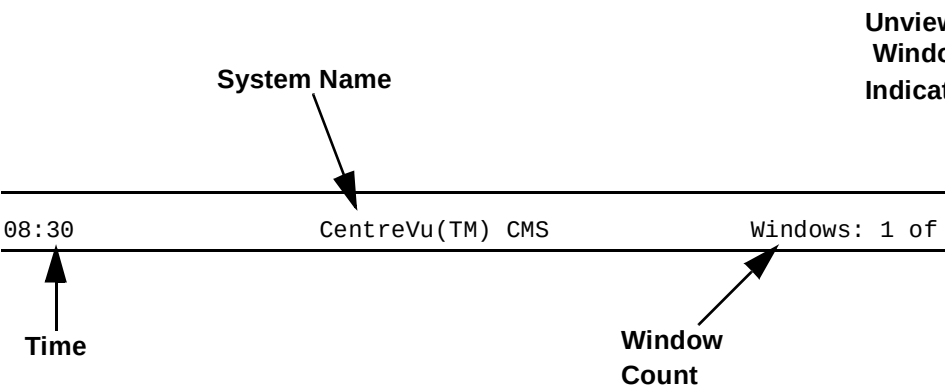


Figure 2-1: CentreVu CMS Screen Layout

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
Time	<i>CentreVu</i> CMS time, which is the <i>UNIX</i> system/ <i>Solaris</i> system date and time. The time is updated every 60 seconds.
System Name	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 ten open primary windows per *CentreVu* CMS user at one time. The *CentreVu* CMS administrator can limit the number of windows open at any one time (one to ten) for each user. See Chapter 9, “User Permissions — User Data,” for more information.

* An 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.

Menu Characteristics

The Main Menu, submenus, and SLK menus (Figure 2-2) have the following characteristics:

- Menus guide you through the *CentreVu* CMS and cannot be moved, sized, or scrolled.
- An ">" after **any** menu item indicates that another menu (submenu) displays when the menu item is selected.
- Menus and SLK menu items bring up primary windows which count in the user window count and act as any other user window.
- If read permission (see Chapter 9, "User Permissions") to a particular subsystem for a user is turned off, that subsystem is not shown on the menu for that user.
- Menu items that do not make sense at the moment (for example, Color if you are using a monochrome terminal) are grayed out, and the cursor skips these choices.
- Menu item selection is not case-sensitive (either uppercase or lowercase letters work.)

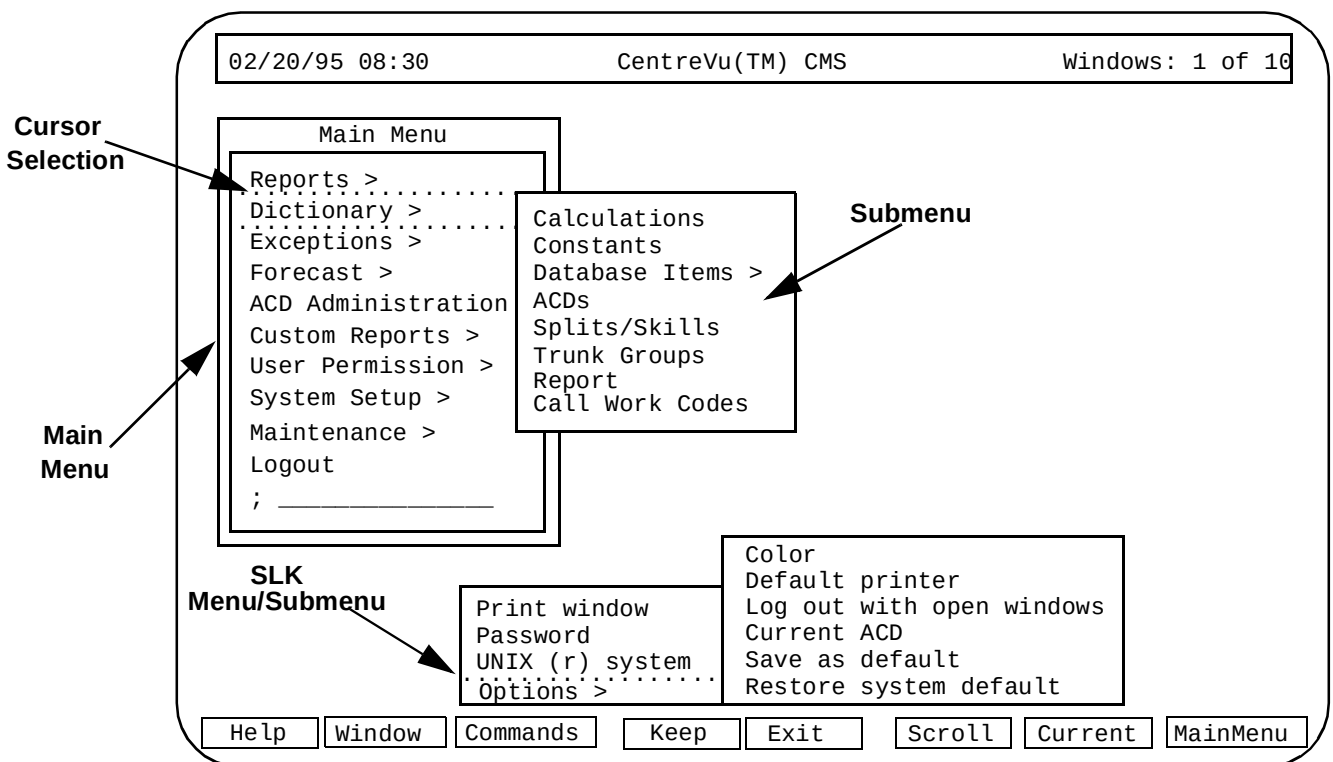


Figure 2-2: Main Menu/Submenu

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), and press **Return**. Either upper- 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 **Return** to select it.

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

- 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 Main Menu 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).

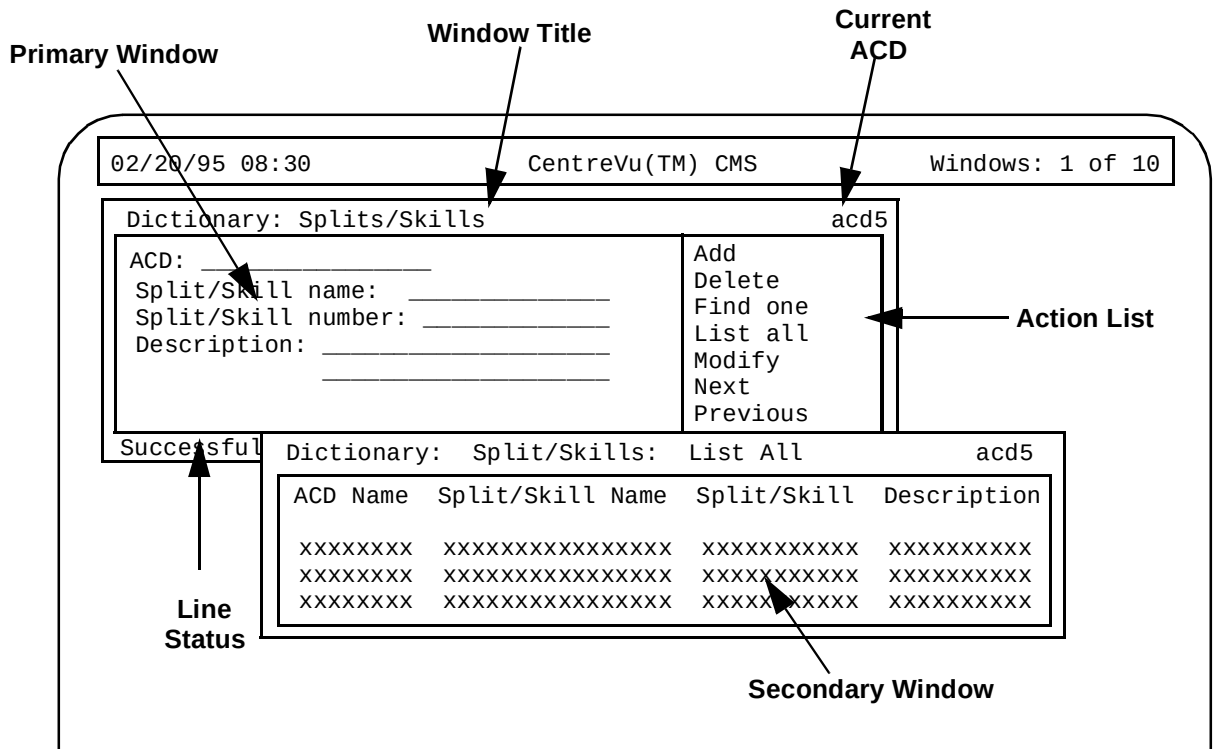


Figure 2-3: User Windows

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 **ten** *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 9, “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 the window’s field.

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 5, “Timetable and Shortcut,” for information and the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document for the custom report user windows.

Messages

In conjunction with user windows, message windows display information like 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 others require that you press **Return**.

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 or the Back Space key erases the previous character in an input field (destructive backward space).
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 5, “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 Ctrl E 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 and are case sensitive.
 - Can be 1 to 20 characters. Letters, numbers, underscores (_), blanks, commas (,), periods (.), and plus signs (+) are accepted.

To insure that names will fit on standard CentreVu CMS reports, use 6 or fewer characters.

- Field descriptions:**
- Can be 1 to 50 characters. All typewriter 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

You can edit a field at any time by using:

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.

- The arrow keys and overtyping.
- The **Back Space** or **Ctrl** + **H** and overtyping.
- The Space Bar and overtyping.
- **Ctrl** + **E** to insert text.

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

- **Ctrl** + **X** to erase the field from the cursor to the end.
- **Ctrl** + **Y** to erase the entire field.
- **Ctrl** + **Z** to erase all field inputs and clear the status line in the window. The cursor returns to the first field in the input window.

Note Overtyping is the default edit mode.

- **Ctrl** + **C** or 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 in this way prior to completing the move or resizing. You can also cancel block-oriented activities in custom reports. See the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) 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 field(s). 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 field(s).

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 **Ctrl** + **Z** 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 do a **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 do a **Find one** first to view the data, and then do the **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**. It is grayed out otherwise.

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

Note

Previous only works with **Find one**, **Next**, and **Previous**. It is grayed out otherwise.

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

Making an Action List Selection

1. After completing all required fields, press **Return**. → *The cursor moves to the action list.*
2. Enter the first character of the action list item you want (for example, **D** for Delete), or press the down or up arrow keys to move the cursor to the item.
3. Once the appropriate action is highlighted, press **Return** 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

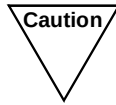
Use the left arrow or **Ctrl** + **C** to return to the input window at any time without selecting an action-list item.

Adding an Entry to *CentreVu* CMS Database

1. Make a selection from the *CentreVu* CMS Main Menu or subsystem menu by typing the first unique character(s) of the entry (for example, **D** for Dictionary) and pressing **Return**. → *The appropriate user window displays.*
2. Enter the appropriate data in the input field(s) on the user window.
3. Press **Return**; then press **A** (or use the arrow keys) to move your cursor to **Add** on the action list, and press **Return** again. → *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 *CentreVu* CMS Database



You can delete records from the database using pattern searching; but if you do, an Acknowledgment displays warning you that more than one record may be deleted if you continue. The Acknowledgment allows you to cancel the delete action.

1. Make a selection from the *CentreVu* CMS Main Menu or subsystem menu by typing the first unique character(s) of the entry (for example, **U** for User Permissions) and pressing **Return**. → *The appropriate user window displays.*

2. Enter the appropriate data in the input field(s) on the user window.



You may want to do a Find one to ensure you are deleting the right entry.

3. Press **Return**; then press **D** to move your cursor to Delete on the action list, and press **Return** again. → *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

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. Make a selection from the *CentreVu* CMS Main Menu or subsystem menu by typing the first unique character(s) of the entry (for example, **D** for Dictionary) and pressing **Return**.
→ *The appropriate user window displays.*
2. Enter the appropriate data in the input field(s) on the user window.
3. Press **Return**; then press **F** to move your cursor to Find one on the action list, and press **Return** again.
→ *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

Note

Next is grayed out until you select Find one.

If you do a Find one that found 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 completing a Find one, → *The cursor moves to the
Next or Previous, press
Return.*
2. Press **N** to move your cursor to → *Working appears on the
Next on the action list, and
press Return again. Successful appears. The
next match found displays in
the input fields.*

Finding the Previous CentreVu CMS Database Entry

Note Previous is grayed out until you do a Find one.
If you do a Find one that finds 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. After completing a Find one, Next, or Previous, press **Return**. → *The cursor moves to the action list.*
2. Then press **P** to move your cursor to Previous on the action list, and press **Return** again. → *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

Note

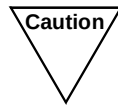
With `List all`, *CentreVu* CMS searches for records that match the data entered in all fields. Fields left blank match everything in the database. You can also use ranges for numerical fields and the asterisk (*) or question mark (?) for name/text fields. Numeric ranges cannot be more than 1000 numbers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

1. Make a selection from the *CentreVu* CMS Main Menu or subsystem menu by typing the first unique character(s) of the entry (for example, `D` for Dictionary) and pressing `Return`. → *The appropriate user window displays.*
2. Enter the appropriate data in the input field(s) on the user window.
3. Press `Return`; then press `L` to move your cursor to `List all` on the action list, and press `Return` again. → *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 do a `List all` again to see the change.

Modifying a CentreVu CMS Entry



With `List all`, *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, 2000-2999).

1. Make a selection from the *CentreVu* CMS Main Menu or subsystem menu by typing the first unique character(s) of the entry (for example, `D` for Dictionary) and pressing `Return`. → *The appropriate user window displays.*
2. Enter the appropriate data in the input field(s) on the user window.
3. Do a `Find one` to view the database entry that you want to modify. → *Current window values appear.*
4. Press `Return`; then press `M` to move your cursor to `Modify` on the action list, and press `Return` again. → *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.*



If you leave any fields blank with `Modify`, those blank fields blank out (nullify) the data currently in the database. Therefore, you should do a `Find one` to view the database entry, change the appropriate fields, and then select `Modify` from the action list.



If the entry you are trying to modify does not exist, `Does not exist` displays on the status line. You must add the entry instead of trying to modify it.

Running a Report

1. Make a selection from the appropriate menu(s). → *The report input window displays.*
2. Enter appropriate data in the report input window, and press **Return**. → *The cursor moves to action list.*
3. Press **Return** 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

With all historical reports (including configuration), you can select your report destination within the report input window (Figure 2-4) and then Run the report.

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 files.

Note

You do not have to select your report destination each time you run a report — only when you want to change your destination from what is shown in the report input window. `Terminal`, the default destination, displays the report on your terminal screen.

The screenshot shows a window titled "CentreVu(TM) CMS" with a status bar at the top displaying "04/20/95 15:30" and "Windows: 1 of 10". The main area contains a form with the following elements:

- A header bar with "Rpts: Hist: xxxxxxxxxxx:xxxxxxxxxxx" on the left and "acd5" on the right.
- Two rows of text input fields, each preceded by "xxxxxxxxxxxxxx:".
- A "Run" button located to the right of the second input field.
- A section titled "Report destination (Select one):" with three options:
 - <x> Terminal
 - < > Printer, Printer name _____
 - < > File, File name: _____

Figure 2-4: Report Input Alternate Report Destinations

* UNIX is a registered trademark of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

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.

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, and then press **Return**. 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/*Solaris* system (/usr/<your login ID>) unless you specify a full path name to another directory.

3. Press **Return**. → *The cursor moves to the action list.*

4. Press **Return** 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. 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. The screen labels indicate the function each key performs in *CentreVu* CMS (see Figure 2-5). The following paragraphs describe each screen-labeled key (SLK) and its menus.

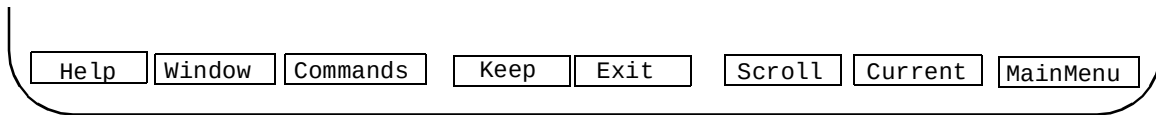


Figure 2-5: *CentreVu* CMS Screen-Labeled Keys

Help SLK

The **Help** SLK brings up the Help SLK menu (Figure 2-6) that 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, you can select **More help** and 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.

Note

A Field help message may be cut off if the help window is too small for the message. If this happens, size the help window so that the entire help message fits in the 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 (like list all windows).

General Help

The General Help submenu (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, etc. The information is displayed in user windows.

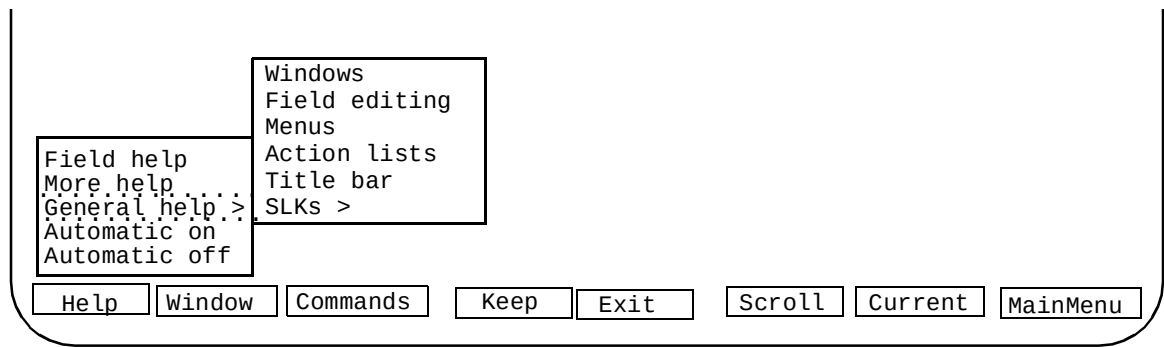


Figure 2-7: Help SLK — General Help Menu

Window	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 The `Window` SLK is used to list, move, and size windows. Figure 2-8 shows the `Window` SLK menu.

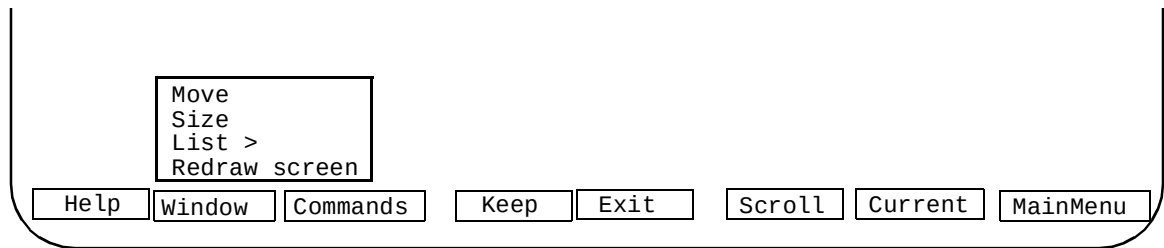


Figure 2-8: Window SLK Menu

Move

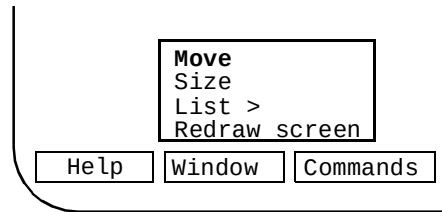
This menu item allows you to move the current window. You cannot move a window off the screen. When moving a window:

- **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 **Return** to complete the move.

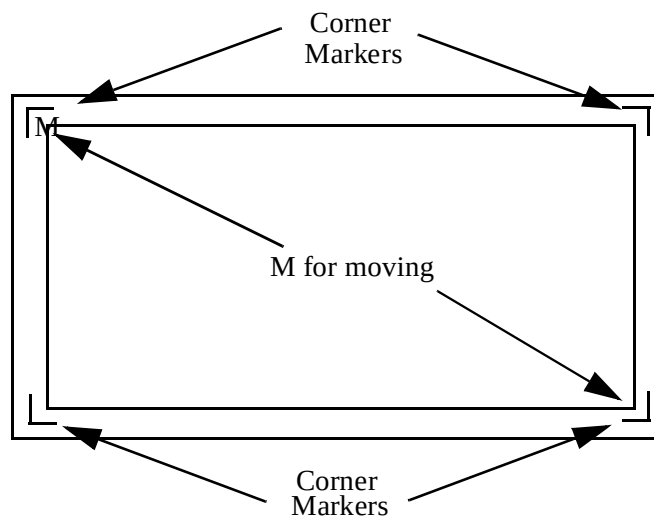
Moving a Window

To move open windows, follow these steps:

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



2. Select Move, and press **Return**. → *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 **Return**. → *The window moves to the corner markers. Corner markers disappear, and the cursor returns to the window.*

Size

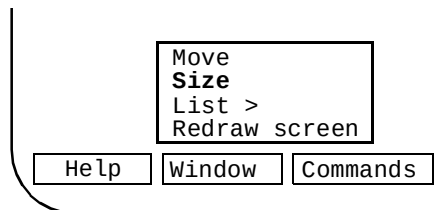
This menu item allows you to change the size of the current window. You can size report windows so that you only see what you are interested in. When sizing a window:

- You cannot size a window smaller than its action list, and you cannot size an input window smaller than the default size.
- **Ctrl** + **C** cancels a size 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 **Return** to complete sizing the window.

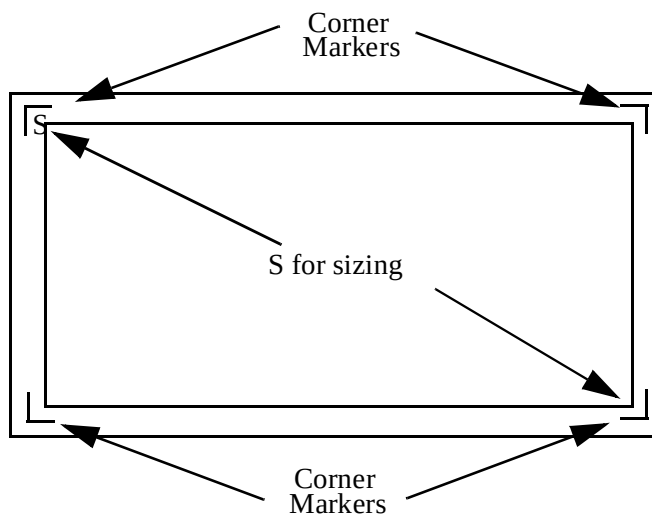
Sizing a Window

To size the current window, follow these steps:

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



2. Select **Size**, and press **Return**. → *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 **Return**. → *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 **Return** 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 bringing up a window and press the **MainMenu** SLK and select another window, that first window has never been viewed and would then be listed with an asterisk next to it in the List menu. You can make any window with an asterisk current by selecting the appropriate menu item or using the **Current** SLK and rotating through the windows.

Listing Open Windows

To list open windows, do the following:

1. Press the **Window** SLK. → *The Window menu displays.*
2. Select **List**, and press **Return**. → *A menu displays listing all your open windows.*
3. From the List menu, choose the window title you want, and press **Return**, 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. **Ctrl** + **L** can also be used to redraw the screen.

Note

If a *UNIX* system/*Solaris* system error message displays on the *CentreVu* CMS console terminal, redraw the screen to clear this message from the screen. Also, if the screen becomes garbled, redraw the screen.

Commands SLK

The **Commands** SLK allows you to print the current window, create and change passwords, access the *UNIX* system/*Solaris* system, 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, and receive a warning when you log off with open windows. Figure 2-9 shows the **Commands** SLK menu.

Note

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 not displayed if permissions are not granted. See Chapter 9, “User Permissions,” for more information on granting user permissions.

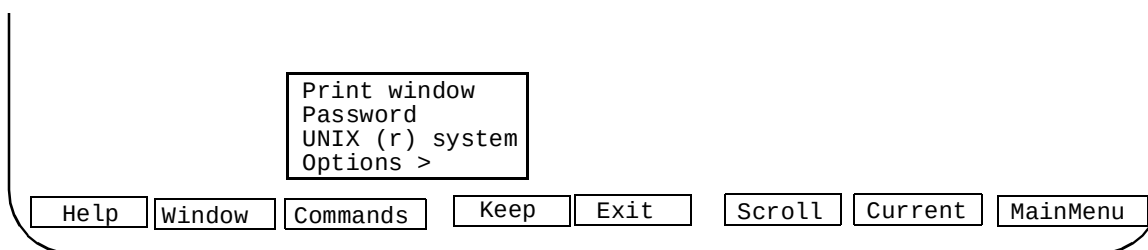


Figure 2-9: Commands SLK Menu

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. When you select Print Window:

- 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.
- 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 to their login.

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

Printing a Window

To print an open window, do the following:

1. Press the `Commands` SLK. → *The Commands menu displays.*
2. Select `Print Window`, and press `Return`. → *An appropriate message displays on the status line when spooling completes.*

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 12, “*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, do the following:

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

UNIX (r) System

Note

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.

If you do not have *UNIX (r) system* feature permission, this option does not appear on your **Commands** SLK menu.

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 12, “*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 **Ctrl** + **D**.

Options >

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

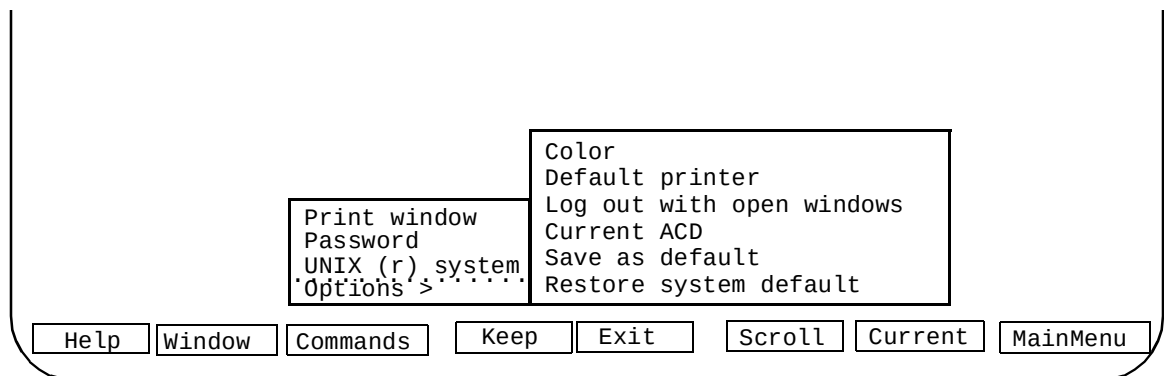


Figure 2-10: Options Menu

Color

From Color, you can change the colors used for menus, user windows, current window border, other window borders, title bar, etc. This menu item is only available 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 back in. You then have to reopen all previously opened windows to see the new colors.

Default Colors

CentreVu CMS has the following system 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. You could use the three levels of intensity/color to designate **Normal**, **Caution**, and **Warning** conditions. The following table shows the three intensity/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, follow these steps:

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

2. Select Options, and press Return. → *The Options menu displays.*
3. Select Color, and press Return. → *The Color window displays.*

Color		All ACDs			
Input number from the legend below		Modify			
	Text	Background			
Menus and user windows:	-	-			
Current window border:	-	-			
Other window borders:	-	-			
Title bar:	-	-			
Grayed-out menu items:	-	-			
For graphics users:					
Normal bar: _	1 	2 	3 	4 	
Exceeds first threshold: _					
Exceeds second threshold: _	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 Return. → *Cursor moves to the action list.*
5. Select Modify, and press Return. → *Modify is highlighted, and Working appears on the status line until the action completes; then Successful appears.*
6. Press Exit to return to another open window. → *The Color window disappears.*

You can restore the system default colors at any time by bringing up this window and selecting the Restore system default option from the Commands SLK, Options menu item and selecting Modify.

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 9, “User Permissions — User Data,” for more information). Your default printer name is displayed in the Default printer name: field.

See Chapter 11, “Maintenance — Printer Administration,” if you want to change the paper length, paper width, or font.

Modifying Your Default Printer

To modify your default printer, use the following procedures.

1. Press the **Commands** SLK.

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

→ *The Options menu displays.*
3. Select Default printer, and press **Return**.

→ *The Default Printer window displays.*

Default Printer		acd5
User ID: cms Default printer name: printer1_____		Find one List printers Modify Next Previous

4. Enter the name of your new default printer, and press **Return**.

→ *The cursor moves to the action list.*
5. Select Modify, and press **Return**.

→ *Working appears on the status line until the action completes; then Successful appears.*
6. Press **Exit** to close the window.

→ *The Default Printer window disappears.*

Logging 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, complete the following procedures.

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

Log Out With Open Windows	
Do you wish to be notified when you log out with windows open: n_	Modify

4. Enter **y** for yes, and press **Return**. The default value is no. → *Cursor moves to the action list.*
5. Press **Return** again to modify. → *Working appears on the status line until the action completes; then Successful appears.*
6. Press **Exit** 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.

Changing Your Current ACD

To change the current ACD, follow these steps:

1.

Press the **Commands** SLK.

→

The Commands menu displays.
2.

Select **Options** **>**, and press **Return**.

→

The Options menu displays.
3.

Select **Current ACD**, and press **Return**.

→

The following window displays.

Current ACD	Chicago
User ID: cms Current ACD: Chicago	Find one List ACDs Modify Next Previous

4.

Enter the ACD name or number you want to change to, and press **Return**.

→

The cursor moves to the action list.
5.

Select **Modify**, and press **Return** again to modify.

→

Working appears on the status line until the action completes; then Successful appears.
6.

Press **Exit** to close the window.

→

You return to your previously opened window, or if there is no open window, to the Main Menu.

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 default.

Saving Your Default Entries

To save your entries as defaults, follow these steps:

1. Press the **Commands** SLK. → *The Commands menu displays.*
2. Select Options >, and press **Return**. → *The Options menu displays.*
3. Select Save as default, and press **Return**. → *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.

Restoring Your System Defaults

You must be in an input window that has system defaults or defaults you have previously saved. To restore the system defaults, follow these steps:

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

Keep SLK

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

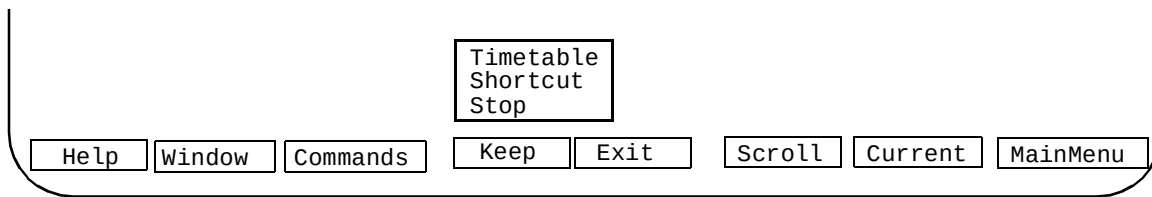


Figure 2-11: Keep SLK Menu

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 5, “Timetable and Shortcut,” 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 Main Menu blank line to see the reports.

See Chapter 5, “Timetable and Shortcut,” 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 5, “Timetable and Shortcut,” 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 Main Menu. Any secondary windows associated with the current window go away.

- With **menus/submenus**, pressing **Exit** 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 **Exit**, the cursor returns to the previous position in the current open window or to the Main Menu 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 in scroll mode in these windows.

The **Scroll** SLK works as follows:

- With the up and down arrow keys you can move between fields.
- With the arrow keys you can page (or scroll) the contents of the window. You can also use the arrow keys with numbers to scroll the window.
- With the left and right arrow keys you can move within a field.

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

- Press the **Scroll** SLK twice to exit and revert to input mode.
- Press **Return** 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 Main Menu but leaves the current window open. Any displayed submenus or SLK menus disappear.

General Information

Audience

Chapter 3 is written for *CentreVu™* Call Management System (*CentreVu* CMS) supervisors and administrators who use the real-time report subsystem to generate reports.

Introduction

Standard real-time reports:

- Show the current status of ACD activity. The types of data for real-time reports are status, cumulative, and administrative. (See the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document for a description of these data types.)
- Display data for the current interval for agent, split/skill, trunk/trunk group, vector, and VDN activities, such as number of ACD calls, abandoned calls, average talk time, and so on.

You assign the length of the current interval for real-time ACD data in the System Setup: Storage Intervals window. (See Chapter 10, “System Setup—Storage Intervals.”)

Real-Time Reports Menu

Figure 3-1 shows the Real-Time Reports menu.

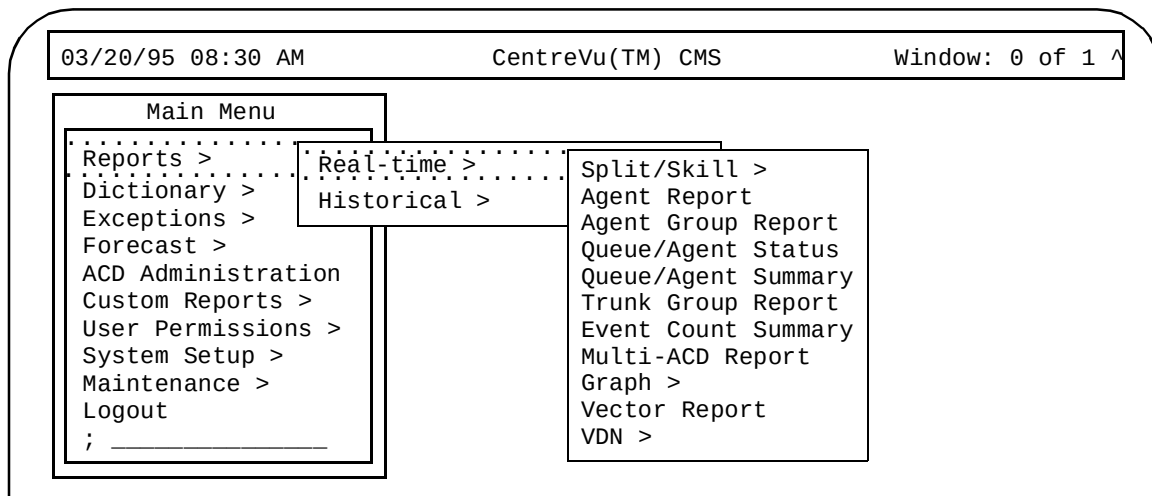


Figure 3-1: Real-Time Reports Menu

How This Chapter is Organized

This chapter gives a brief description of each available report, examples of the report input windows, and definitions of the input fields. It provides you with the information you need to complete any real-time 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 R3V4 Reports* (AT&T 585-215-801) document.

Immediately following this introduction are:

- **Things to Know About All Real-Time Reports** — gives you information on factors that affect all real-time reports.
- **Prerequisite System Administration** — lists system administration that must be performed prior to using the Reports subsystem.
- **Relationships to Other Subsystems** — lists how the real-time Reports subsystem interacts with other *CentreVu* CMS subsystems.

The following reports are described in this chapter:

- Split/Skill Reports
- Agent Report
- Agent Group Report
- Queue/Agent Status Report
- Queue/Agent Summary Report
- Trunk Group Report

- Event Count Summary Report
- Multi-ACD Report
- Graph Reports
- Vector Report
- VDN Reports

Each report description has the following headings:

- **Prerequisite System Administration** — included only if a report has specific administration that must be performed in order to run successfully.
- **Relationships to Other Subsystems** — included only if a report has specific relationships that do not apply to the majority of real-time reports.
- **Input Window(s)** — if a series of reports have similar input windows, the example is shown only at the beginning of the section. If a series of reports (graph reports specifically) have input windows that are specific to each report, the input window is shown with the report description.
- **Input Fields** — if a series of reports have similar input fields, the field definitions are listed only at the beginning of the section. If a series of reports (graph reports specifically) have input windows that are specific to each report, the field definitions are shown with the report description.

Things to Know About All Real-Time Reports

Refresh Rate for Real-Time Reports

When you order a real-time report, you must specify a refresh rate for the report. This rate determines how often the report is updated to display new data.

Your fastest allowable refresh rate is defined in the User Permissions — User Data window as minimum refresh rate (see Chapter 9, “User Permissions”). For any user, the fastest rate that may be defined is every 3 seconds. However, the actual speed at which a report refreshes may be slower than the defined speed, since the number of active terminals, the number of active windows, and the number of real-time reports can have an impact on refresh rates.

The default refresh rate when you bring up the report input window is your minimum refresh rate **plus** 15 seconds. The default refresh rate can be changed at any time.

If you want to calculate the shortest refresh rates you can get in *CentreVu* CMS real-time reports for your configuration, go to the `cmsadm` Menu in the *UNIX*^{*}/*Solaris*[†] system and select menu item 6) `realtime`. The Real-Time Refresh program calculates the best (shortest) refresh rates you can get in *CentreVu* CMS real-time reports. The program bases its calculations on your computer type, your ACD configuration, and the ways in which you use *CentreVu* CMS reports.

Current Interval

The current interval is a set number of minutes (15, 30, or 60). *CentreVu* 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 ACD cumulative data are cleared, and *CentreVu* 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*. The *intrahour interval* can be set at 15, 30, or 60 minutes. (See Chapter 10, “System Setup—Storage Intervals,” for more information.)

* UNIX is a registered trademark of Novell, Inc.

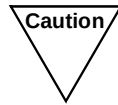
† Solaris is a trademark of Sun Microsystems, Inc.

Interactions with Switch Features

See the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document for the interactions with switch features.

Service Level Increments for Call Profile Reports

You must define your acceptable service level and service level increments for splits/skills and VDNs in the Split/Skill Call Profile Setup and VDN Call Profile Setup windows. If you do not define your service level and increments, zero (0) is used for all increments, and all calls appear in the first increment. For more information, see Chapter 8, “ACD Administration—Split/Skill Call Profile Setup.”



If you change the increments while data collection is turned on, data are distorted for the interval in which you made the change. *CentreVu* CMS deletes the call profile data already collected for that interval and only keeps the call profile data that occurred after the change. Then *CentreVu* CMS tries to combine the call profile data gathered both before and after the change into a single daily record of call profile data. As a result, some data is placed in the wrong service level increments.

Daily, weekly, and monthly summaries that include the date of the increment change look peculiar. The time increments shown on the report for the changed increment in the Call Profile Setup window are the maximum values entered for each increment before or after the change. For example, if you change the increments from all “0s” to 1, 3, 5, 10, etc., the Call Profile report shows 1, 3, 5, 10, etc. 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.

You should change the time increments early in the day, preferably before agents begin staffing splits/skills and before a large amount of data has been gathered. Also change the profile 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 profile data for the month in which you make profile changes.

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. See Chapter 1 for more information.

Prerequisite System Administration

The following system administration must be performed before you can fully use the real-time reports subsystem.

Dictionary

If you want names to appear on split/skill, trunk group, agent group, ACD, call work code, VDN, and 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.

ACD Administration

To get Split/Skill Call Profile or VDN Call Profile reports, you must first define your acceptable service level and service level increments for the split(s)/skill(s) and VDN(s) in the Split/Skill Call Profile Setup and VDN Call Profile Setup window in the ACD Administration subsystem (see Chapter 8, “ACD Administration”).

To get an Agent Trace report, you must first start collecting agent trace data. To start an agent trace, see Chapter 8, “ACD Administration—Activate Agent Trace.”

User Permissions

For a report to display data, you must have **read** permission for the split/skill, trunk group, ACD, vector, or VDN. For example, if you have read permission for Splits 1, 2, and 4, and try to run a report on Splits 1, 4, and 5, you receive data for Splits 1 and 4 but not for Split 5, because you do not have read permission for that split. See Chapter 9, “User Permissions,” for more information.

System Setup

You need to specify what agent data and how much agent data will be stored for later use in agent trace reports in the System Setup subsystem—Agent Trace Record Contents window. See Chapter 10, “System Setup—Agent Trace Record Contents.”

Relationships to Other Subsystems

Real-Time reports have the following relationships to other *CentreVu* CMS subsystems.

Timetable and Shortcut

You cannot put a real-time report on a timetable. You can use shortcuts to display real-time reports.

See Chapter 5, "Timetable and Shortcut".

Dictionary

For split/skill, VDN, vector, and ACD names to appear on reports, names must be defined and entered in the Dictionary subsystem.

See Chapter 6, "Dictionary".

Exceptions

When an exception occurs, *CentreVu* CMS notifies you in three ways:

- The terminal beeps, flashes, or beeps and flashes at the same time—unless you have disabled both the beep and flash.
See Chapter 7, "Exceptions."
- The `Ex` field on the *CentreVu* CMS title bar shows a running count of current exceptions. Exceptions are cleared when you log in, when you change the current ACD, and at the end of each interval. To be notified of exceptions, you must have exception permission turned on for the specific split/skill, trunk group, ACD, VDN, and vector. Exception permissions are assigned in the User Permissions subsystem.

See Chapter 9, "User Permissions."

- The exception is entered in the real-time exceptions log.

See Chapter 7, "Exceptions."

User Permissions

The default for the `Refresh rate in seconds` field in the report input window is the minimum refresh rate assigned for the user plus 15 seconds. The administrator assigns each user a minimum refresh rate in the User Permissions—User Data window. If you enter a rate that is less than your assigned minimum refresh rate, an error window appears.

See Chapter 9, "User Permissions."

Split/Skill Reports

From the Split/Skill menu (Figure 3-2 and Figure 3-3) you can select Split (non-EAS) or Skill (EAS) Status, Report, or Call Profile.

If you need to know what a report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

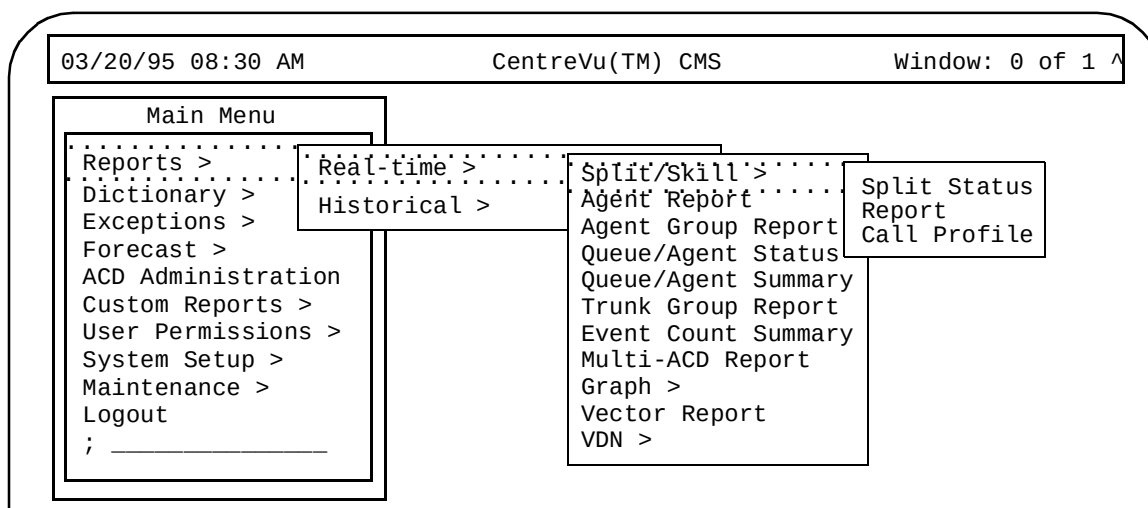


Figure 3-2: Split Reports Menu

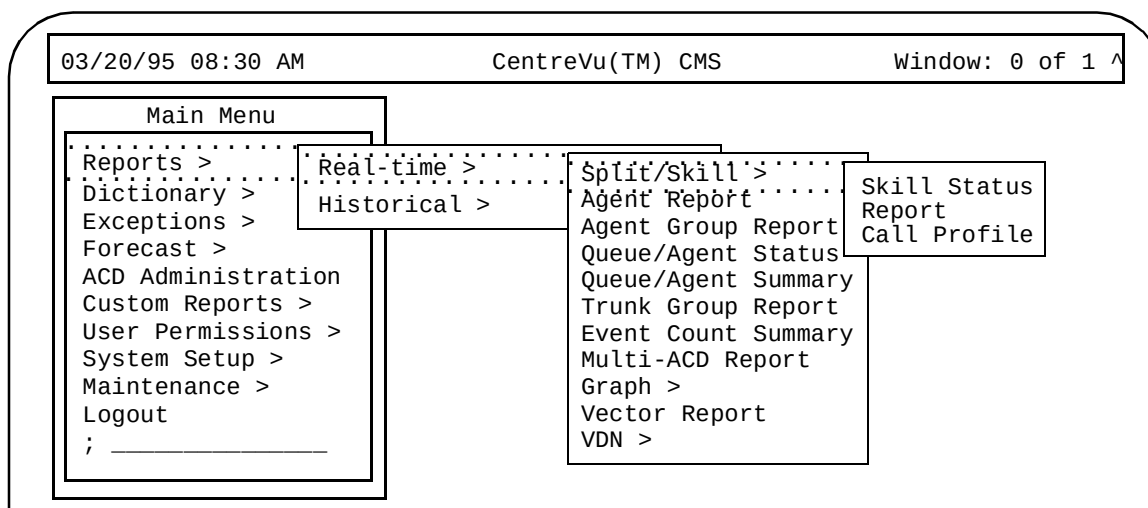


Figure 3-3: Skill Reports Menu

Split Status Report

The **Split Status** report shows, for a selected split, how long the oldest call in queue has been waiting, how many calls are currently waiting to be answered, agent names, agent states, the length of time an agent has been in the displayed state, and the split associated with the call the agent is currently handling.

Skill Status Report

The **Skill Status** report shows, for a selected skill, how long the oldest call in queue has been waiting, how many calls are currently waiting to be answered, agent names, agent states, and the skill associated with the call the agent is currently handling.

Note

This report is available only if you have purchased the Expert Agent Selection (EAS) feature (available on Generic 2.2 and Generic 3 Version 2 and later switches).

Split/Skill Report

The split/skill **Report** displays real-time call-handling information on a number of splits or skills simultaneously. It allows the supervisor to evaluate and compare the workload and call-handling performance between splits/skills, and to determine agent reassignment or other ACD configuration alternatives to balance workloads and/or reduce abandoned calls.

You can enter a range or list of splits/skills. If you want to view six or fewer splits or skills, you may want to reduce the window size.

Split/Skill Call Profile Report

The split/skill **Call Profile** report shows the wait times of incoming calls handled and abandoned in a split or skill during the current interval.

Prerequisite System Administration

You must define your acceptable service level and service level increments for this split/skill in the Split/Skill Call Profile Setup window. If you do not define your service level and increments, zero (0) is used for all increments, and all calls appear in the first increment. For more information, see Chapter 8, “ACD Administration—Split/Skill Call Profile Setup.”

Input Windows

Real-Time split/skill reports all have similar input windows. The following examples show what typical input windows look like.

Figure 3-4 is an example of the input window for the real-time Skill Status report.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 1

Rpts: Real: Split/Skill: Skill Status InputACD1

Skill: _____Run

Refresh rate in seconds: ____

Figure 3-4: Skill Status Report Input Window Example

Figure 3-5 is an example of the input window for the real-time Split Status report.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 1

Rpts: Real: Split/Skill: Split Status InputACD1

Split: _____Run

Refresh rate in seconds: ____

Figure 3-5: Split Status Report Input Window Example

Figure 3-6 is an example of the input window for the real-time Call Profile report.

Figure 3-6: Call Profile Report Input Window Example

Input Fields

Table 3-1 includes definitions for and directions on completing all fields on real-time Split/Skill report input windows. See Figure 3-4, Figure 3-5, and Figure 3-6 for examples of the input windows.

Table 3-1: Split/Skill Report Input Fields

Field	Definition
Skill:	Enter the skill name or number you want to view. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Split:	Enter the split name or number you want to view. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Split(s)/Skill(s):	Enter the appropriate split or skill name or number. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.

Table 3-1: Split/Skill Report Input Fields (Contd)

Field	Definition
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Agent Report

The **Agent** report displays the current activities of all agents assigned to a split/skill. It shows the extension from which the agent logged in, the agent's work state, how long the agent has been in that work state, and the split/skill in which the agent is currently working. This report also gives you VDN information if you have the Vectoring feature.

If you need to know what the Agent Report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must fill in the report input window (Figure 3-7) to run the report. See Table 3-2 for descriptions of the fields on the input window.

Figure 3-7: Agent Input Window

Input Fields

Table 3-2 includes definitions for and directions on completing all fields on the real-time Agent report input window. See Figure 3-7 for an example of the input window.

Table 3-2: Agent Report Input Fields

Field	Definition
Split/Skill:	Enter the split or skill name or number that you want to view in this report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Agent Group Report

The **Agent Group** report allows you to view agents according to groups you have created in the Dictionary subsystem. For example, these groups could be agents who speak Spanish, new agents, agents with specific extension numbers, or any grouping that fits your call center's needs.

If you need to know what the Agent Group Report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must fill in the report input window (Figure 3-8) to run the report. See Table 3-3 for descriptions of the fields on the input window.

The diagram illustrates the Agent Group Input Window. At the top, a status bar displays '03/20/95 08:30 AM', 'CentreVu(TM) CMS', and 'Windows: 1 of 1' with an upward arrow. Below this, the main window title is 'Rpts: Real: Agent Group Report: Input' with a window icon 'acd1' on the right. The input area contains two text fields: 'Agent Group name: _____' and 'Refresh rate in seconds: ____'. A 'Run' button is positioned to the right of the first field.

Figure 3-8: Agent Group Input Window

Input Fields

Table 3-3 includes definitions for and directions on completing all fields on the real-time Agent Group report input window. See Figure 3-8 for an example of the input window.

Table 3-3: Agent Group Report Input Fields

Field	Definition
Agent Group name:	Enter the name of the group you want to view. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Queue/Agent Status Report

The **Queue/Agent Status** report is a combination of the Agent report and the Queue/Agent Summary report. It shows overall split/skill information such as the number of calls waiting, oldest call waiting, and percent answered within service level. It shows the number of agents available, on ACD calls, staffed, with calls ringing and on after call work. It also shows what each agent in the split/skill is currently doing.

If you need to know what the Queue/Agent Status Report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must fill out the report input window (Figure 3-9) to run the report. See Table 3-4 for descriptions of the fields on the input window.

03/20/95 08:30 AM CentreVu(TM) CMS Windows: 1 of 1 ^

Rpts: Real: Queue/Agent Status Input

Split/Skill: _____ Run

Refresh rate in seconds: ____

Figure 3-9: Queue/Agent Status Input Window

Input Fields

Table 3-4 includes definitions for and directions on completing all fields on the real-time Queue/Agent Status report input window. See Figure 3-9 for an example of the input window.

Table 3-4: Queue/Agent Status Report Input Fields

Field	Definition
Split/Skill:	Enter the split or skill name or number that you want to view in this report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Queue/Agent Summary Report

The **Queue/Agent Summary** report summarizes the split/skill's queue status (for example, how many calls are waiting in queue). It also summarizes the status of all agents (for example, how many agents are currently staffed or in after call work for the split or skill).

If you need to know what the Queue/Agent Summary Report looks like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must fill out the report input window (Figure 3-10) to run the report. See Table 3-5 for descriptions of the fields on the input window.

03/20/95 08:30 AM CentreVu(TM) CMS Windows: 1 of 1 ^

Rpts: Real: Queue/Agent Summary Input acd1

Split/Skill: _____ Run

Refresh rate in seconds: ____

Figure 3-10: Queue/Agent Summary Input Window

Input Fields

Table 3-5 includes definitions for and directions on completing all fields on the real-time Queue/Agent Summary report input window. See Figure 3-10 for an example of the input window.

Table 3-5: Queue/Agent Summary Report Input Fields

Field	Definition
Split/Skill:	Enter the split or skill name or number that you want to view in this report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Trunk Group Report

The **Trunk Group** report displays the current status of each trunk in a selected trunk group. This information is useful in identifying overused or underused facilities and in general troubleshooting.

If you need to know what the Trunk Group Report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must fill in the report input window (Figure 3-11) to run the report. See Table 3-6 for descriptions of the fields on the input window.

The diagram illustrates the Trunk Group Input Window. It features a title bar at the top with the text "03/20/95 08:30 AM", "CentreVu(TM) CMS", and "Windows: 1 of 1". Below the title bar is a main content area with a border. Inside this area, the text "Rpts: Real: Trunk Group Report Input" is displayed on the left, and "xxxx" is on the right. Below this, there are two input fields: "Trunk group: _____" and "Refresh rate in seconds: ____". To the right of the "Trunk group" field is a button labeled "Run".

Figure 3-11: Trunk Group Input Window

Input Fields

Table 3-6 includes definitions for and directions on completing all fields on the real-time Trunk Group report input window. See Figure 3-11 for an example of the input window.

Table 3-6: Trunk Group Input Fields

Field	Definition
Trunk group:	Enter the trunk group name or number that you want to view in this report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Event Count Summary

The **Event Count Summary** report displays the number of times during the current interval an agent in a split or skill pressed any of the Event Count keys (total of nine keys) while on an ACD call or in call-related after call work.

You can define event keys to represent any kind of event you want (for example, the number of calls generated from an advertisement, promotion, or geographic area).

If you need to know what the Event Count Summary report looks like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Relationships to Other Subsystems

Exceptions

Event 0, audio difficulty, can be found in the trunk and trunk group exception reports.

Input Window

You must fill in the report input window (Figure 3-12) to run the report. See Table 3-7 for descriptions of the fields on the input window.

03/20/95 08:30 AM CentreVu(TM) CMS Windows: 1 of 1 ^

Rpts: Real: Event Count Summary: Input xxxx

Split/Skill: Westravel Run

Refresh rate in seconds: 25

Figure 3-12: Event Count Summary Input Window

Input Fields

Table 3-7 includes definitions for and directions on completing all fields on the real-time Event Count Summary report input window. See Figure 3-12 for an example of the input window.

Table 3-7: Event Count Summary Input Fields

Field	Definition
Split/Skill:	Enter the split or skill name or number that you want to view in this report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Multi-ACD Report

The **Multi-ACD** report displays real-time call-handling information on up to six splits/skills and up to four ACDs at the same time. It allows you to evaluate and compare similar splits/skill information in different ACDs and then determine workload and call-handling performance, agent reassignment, or other ACD configuration alternatives to balance workloads and/or reduce abandoned calls.

Note

The Multi-ACD Report item does not appear on the real-time reports menu unless you have more than one real ACD installed on your *CentreVu* CMS.

If you need to know what the Multi-ACD Report looks like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must fill in the report input window (Figure 3-13) to run the report. See Table 3-8 for descriptions of the fields on the input window.

03/20/95 08:30 AM CentreVu(TM) CMS Window: 1 of 1

Rpts: Real: Multi-ACD: Report: Input

First ACD: _____ Split/Skill: _____

Second ACD: _____ Split/Skill: _____

Third ACD: _____ Split/Skill: _____

Fourth ACD: _____ Split/Skill: _____

Fifth ACD: _____ Split/Skill: _____

Sixth ACD: _____ Split/Skill: _____

Refresh rate in seconds: _____

Run

Figure 3-13: Multi-ACD Report Input Window

Input Fields

Table 3-8 includes definitions for and directions on completing all fields on the real-time Multi-ACD report input window. See Figure 3-13 for an example of the input window.

Table 3-8: Multi-ACD Report Input Fields

Field	Definition
First through Sixth ACD:	Enter the ACD name(s) or number(s) that you want to view in this report. The ACDs do not have to be different; that is, you could report on several splits/skills from the same ACD.
Split/Skill: (for First through Sixth Split/Skill)	Enter the split or skill name or number associated with the first ACD, then the second ACD, etc.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Graph Reports

Note

Because each Graph report has an input window and input fields specific to that report, the input windows and field definitions for each report are listed with the report description.

You must have purchased the Graphics option to use these reports.

Graph reports (Figure 3-14) are only available with the separately purchased Graphics Package. These reports display various real-time call-handling information such as the number of calls waiting, how long callers have been waiting, and the percentage of calls answered within the service level. Graph reports can be displayed on color or monochrome terminals.

Bar graphs can alert you to some conditions at a glance when the color or intensity of a bar changes. You can then take appropriate action to correct the condition.

If you need to know what the Graph reports look like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

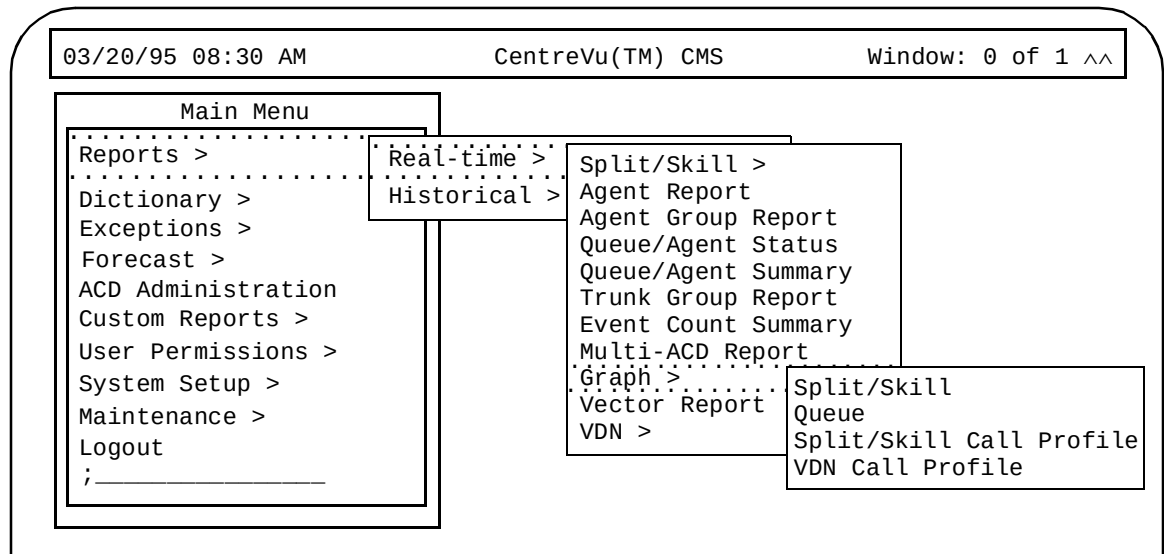


Figure 3-14: Graph Reports Menu

Split/Skill Graph

Complete the **Split/Skill** graph report input window (Figure 3-15) to display the real-time call handling information on one split or skill in a bar graph report. The report allows supervisors to evaluate the split's/skill's workload and call-handling performance and determine agent reassignment or other ACD configuration alternatives to balance workloads and/or reduce abandoned calls.

Input Window

You must fill in the report input window (Figure 3-15) to run the report. See Table 3-9 for descriptions of the fields on the input window.

The maximum value field entries (like Maximum calls waiting) are used to scale the graphs. The data from the Split/Skill report can be helpful to you before determining the values to enter in these fields.

The screenshot shows a window titled "CentreVu(TM) CMS" with a status bar at the top displaying "03/20/95 08:30 AM" and "Window: 1 of 1". The main content area is titled "Rpts: Real: Graph: Split/Skill: Input" and "ACD1". It contains a list of input fields for configuring the Split/Skill graph report, each followed by a blank line for entry. A "Run" button is located to the right of the first field.

Rpts: Real: Graph: Split/Skill: Input	ACD1
Split/Skill: _____	Run
Maximum calls waiting: ____	
First calls waiting threshold: ____	
Second calls waiting threshold: ____	
Maximum time oldest call waits (Secs): ____	
First oldest call wait thres (Secs): ____	
Second oldest call wait thres (Secs): ____	
Maximum number of agents staff: ____	
Refresh rate in seconds: ____	

Figure 3-15: Split/Skill Graph Input Window

Input Fields

Table 3-9 includes definitions for and directions on completing all fields on the real-time Graph report input windows. See Figure 3-15 for an example of the input window.

Table 3-9: Split/Skill Graph Report Input Fields

Field	Definition
Split/Skill:	Enter the name or number of the split or skill you want to view in this report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Maximum calls waiting:	Enter the maximum number of calls that you think could be waiting for this split/skill at any one time. When the Calls Wait bar in the graph report is at its maximum height, it equals this number. This number is used to scale the graph and appears on the vertical axis of the bar graph under Calls.
First calls waiting threshold:	Enter the number of waiting calls that separate the Normal condition from the Caution condition. This number must be less than or equal to the number entered in the Second calls waiting threshold field. When the calls waiting in queue to be answered meet or exceed this threshold, the Calls Wait bar changes color/intensity.
Second calls waiting threshold:	Enter the number of calls waiting that separate the Caution condition from the Warning condition. This number must be less than or equal to the number entered in the First calls waiting threshold field. The Calls Wait bar changes color/intensity when this threshold is met or exceeded.
Maximum time oldest call waits (Secs):	Enter the maximum number of seconds that you think the oldest call will wait in the queue. This number is used to scale the graph and appears on the vertical axis of the bar graph under Seconds. The bars under the Seconds report heading equal this number when they are at maximum height.

Table 3-9: Split/Skill Graph Report Input Fields (Contd)

Field	Definition
First oldest call wait thres (Secs):	Enter the number of seconds that separate the Normal condition from the Caution condition. This value must be less than or equal to the value entered in the Second oldest call wait thres field. When any call waiting in queue meets or exceeds this first threshold, the Oldest Wait bar on the report changes color/intensity.
Second oldest call wait thres (Secs):	Enter the number of seconds that separate the Caution condition from the Warning condition. This value must be greater than or equal to the value entered in the First oldest call wait thres field. When any call waiting in queue meets or exceeds this second threshold, the Oldest Wait bar on the report changes color/intensity.
Maximum number of agents staff:	Enter the maximum number of agents who will be staffed at any one time. This number is used to scale the graph and appears on the vertical axis of the bar graph under Agents. The bars under Agents in the graph report equal this number when they are at maximum height.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Queue Graph

Complete the **Queue Graph** report input window (Figure 3-16) to produce a report showing the number of calls waiting and the oldest call waiting in up to three splits or skills. With this report, you can quickly evaluate and compare one split/skill's workload and call-handling performance against the performance of two other splits/skills, and then determine how to reassign agents or reconfigure your ACD to balance workloads and/or reduce abandoned calls.

Input Window

You must fill in the report input window (Figure 3-16) to run the report. See Table 3-10 for descriptions of the fields on the input window.

03/20/95 8:30 AM CentreVu(TM) CMS Window: 1 of 1

Rpts: Real: Graph: Queue Input ACD1

Maximum calls in queue: _____ Run

Maximum time oldest call waits (Secs): _____

First split/skill: _____

Calls in queue threshold: _____

Oldest call waiting threshold (Secs): _____

Second split/skill: _____

Calls in queue threshold: _____

Oldest call waiting threshold (Secs): _____

Third split/skill: _____

Calls in queue threshold: _____

Oldest call waiting threshold (Secs): _____

Refresh rate in seconds: _____

Figure 3-16: Queue Graph Input Window

Input Fields

Table 3-10 includes definitions for and directions on completing all fields on the real-time Queue graph report input window. See Figure 3-16 for an example of the input window.

Table 3-10: Queue Graph Report Input Fields

Field	Definition
Maximum calls in queue:	Enter the maximum number of calls likely to be waiting in the queue. This number appears under the Calls Waiting report heading on the graph report and is used to scale the bars in this part of the graph. The bars under Calls Waiting heading on the graph report equal this number when they are at maximum height.
Maximum time oldest call waits (Secs):	Enter the maximum number of seconds that you think the oldest call will wait in the queue. This number is used to scale the graph and appears on the vertical axis of the bar graph under Seconds. The bars under the Seconds report heading equal this number when they are at maximum height.
First split/skill:	Enter the name or number of the first split or skill that you want to view in this graph. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem. The name appears under the left-most bar for each report heading on the report.
Calls in queue threshold:	Enter the number of calls that will trigger a Caution condition for the first split/skill. The bar for this first split/skill under the Calls Waiting report heading changes color/intensity when the number of calls in queue meets or exceeds this threshold.
Oldest call waiting threshold (Secs):	Enter the amount of time in seconds that will trigger a Caution condition for the first split or skill. The bar for the first split or skill under the Oldest Call Waiting report heading changes color/intensity when any call waiting in queue meets or exceeds this threshold.
Second split/skill:	Enter the name or number of the second split or skill that you want to view in this graph. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem. The name appears under the middle bar for each report heading on the report.

Table 3-10: Queue Graph Report Input Fields (Contd)

Field	Definition
Third split/skill:	Enter the name or number of the third split/skill that you want to view in this graph. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem. The name appears under the right-most bar for each report heading on the report.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Split/Skill Call
Profile Graph

Complete the **Split/Skill Call Profile** graph report input window (Figure 3-17) to produce the report that shows the wait times of incoming calls handled and abandoned in a split or skill during the current interval.

Prerequisite System
Administration

You must first define your acceptable service level and service level increments for this split/skill in the Split/Skill Call Profile Setup window. For more information, see Chapter 8, “ACD Administration—Split/Skill Call Profile Setup.”

Input Window

You must fill in the report input window (Figure 3-17) to run the report. See Table 3-11 for descriptions of the fields on the input window.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 4

Rpts: Real: Graph: Split/Skill Call Profile InputACD1

Split/Skill: _____Run

Maximum number of calls answered: _____

First calls abandoned threshold: _____

Second calls abandoned threshold: _____

Refresh rate in seconds: _____

Figure 3-17: Split/Skill Call Profile Graph Input Window

Input Fields

Table 3-11 includes definitions for and directions on completing all fields on the real-time Split/Skill Call Profile graph report input windows. See Figure 3-17 for an example of the input window.

Table 3-11: Split/Skill Call Profile Graph Input Fields

Field	Definition
Split/Skill:	Enter the name or number of the split or skill you want to view in this report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Maximum number of calls answered:	Enter the maximum number of calls that you think could be answered during the intrahour interval for any one service level increment. This number appears on the vertical axis of the bar graph under Answered. The bars in this graph equal this number when they are at maximum height.
First calls abandoned threshold:	Enter the number of calls that separate the Normal condition from the Caution condition. This number must be less than or equal to the number entered in the Second calls abandoned threshold field. The abandoned bars change color/intensity when this first threshold is met or exceeded.
Second calls abandoned threshold:	Enter the number of calls that separate the Caution condition from the Warning condition. This number must be less than or equal to the number entered in the First calls abandoned threshold field. The abandoned bars change color/intensity when this threshold is met or exceeded.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

VDN Call Profile Graph Report

Note

This menu item is available only if you have purchased the *CentreVu* CMS Vectoring feature and the Graphics package.

Complete the **VDN Call Profile Graph** report input window (Figure 3-18) to display the report on numbers of answered/connected and abandoned calls that have been processed by the specified VDN within the current interval. The report also displays the percentage of calls that have been answered within the acceptable service level administered for the VDN.

Prerequisite System Administration

You must define your acceptable service level and service level increments for this VDN in the VDN Call Profile Setup window. If you do not define your service level and increments, zero (0) is used for all increments, and all calls appear in the first increment. See Chapter 8, “ACD Administration—VDN Call Profile Setup.”

Input Window

You must fill in the report input window (Figure 3-18) to run the report. See Table 3-12 for descriptions of the fields on the input window.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 1

Rpts: Real: Graph: VDN Call Profile InputACD1

VDN: _____Run

Maximum number of calls ans/conn: _____

First calls abandoned threshold: _____

Second calls abandoned threshold: _____

Refresh rate in seconds: _____

Figure 3-18: VDN Call Profile Graph Input Window

Input Fields

Table 3-12 includes definitions for and directions on completing all fields on the real-time VDN Call Profile graph report input window. See Figure 3-18 for an example of the input window.

Table 3-12: VDN Call Profile Graph Report Input Fields

Field	Definition
VDN:	Enter the name or number of the VDN for which you want the report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Maximum number of calls ans/conn:	Enter the maximum number of calls to this VDN that you anticipate will be answered as ACD calls and connected as non-ACD calls during an intrahour interval within any single service level increment. The bars in the graph equal this number when they are at maximum height.
First calls abandoned threshold:	Enter the number of calls that separate the Normal condition from the Caution condition. This number must be less than or equal to the number entered in the Second calls abandoned threshold field. The abandoned bars change color/intensity when this first threshold is met or exceeded.
Second calls abandoned threshold:	Enter the number of calls that separate the Caution condition from the Warning condition. This number must be less than or equal to the number entered in the First calls abandoned threshold field. The abandoned bars change color/intensity when this threshold is met or exceeded.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

Vector Report

The real-time **Vector** report displays information about how calls to the specified vectors have been handled.

If you need to know what the Vector Report looks like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must fill in the report input window (Figure 3-19) to run the report. See Table 3-13 for descriptions of the fields on the input window.

03/20/95 08:30 AM CentreVu(TM) CMS Window: 1 of 1

Rpts: Real: Vector Report Input ACD1

Run

Vector(s): _____

Refresh rate in seconds: ____

Figure 3-19: Vector Report Input Window

Input Fields

Table 3-13 includes definitions for and directions on completing all fields on the real-time Vector report input window. See Figure 3-19 for an example of the input window.

Table 3-13: Vector Report Input Fields

Field	Definition
Vector(s) :	Enter the name(s) or number(s) of the vector(s) you want included in the report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

VDN Reports

From the **VDN** reports menu (Figure 3-20), you can select Report, Call Profile, or Skill Preference Report.

The **Report** gives the current overall status of the VDNs you select.

The **Call Profile** report gives the wait times of incoming calls answered/connected and abandoned for a VDN during the current interval.

The **Skill Preference** report gives the status of calls answered by various VDN skill preferences.

Note The Report and Call Profile are only available if you have purchased the Vectoring feature and the feature has been activated. The Skill Preference report is only available if you have purchased the Vectoring *and* EAS features and the features have been enabled.

If you need to know what the VDN reports look like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

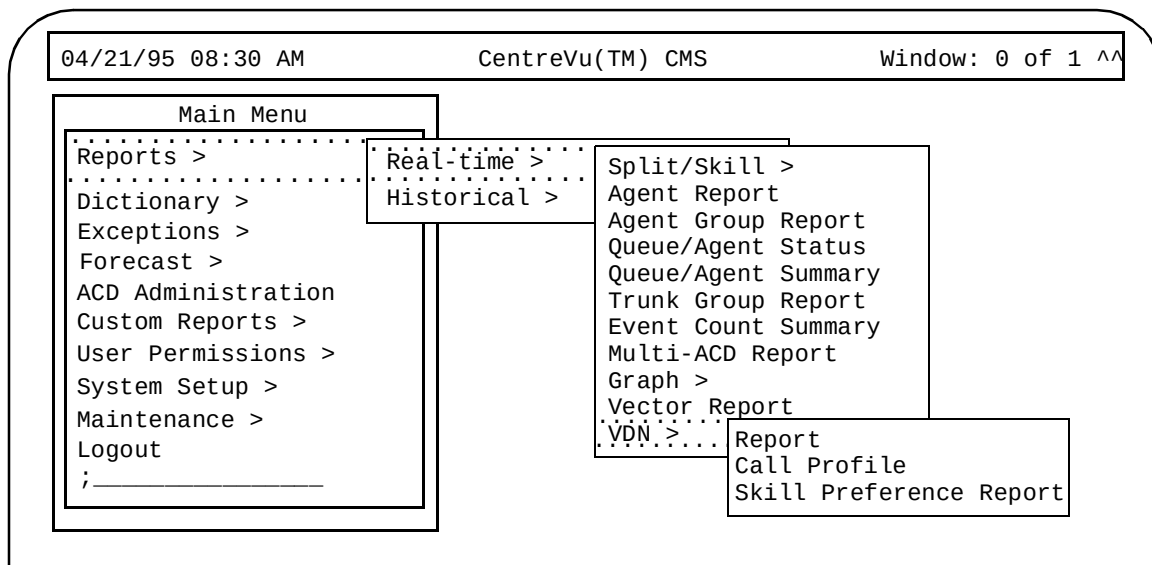


Figure 3-20: VDN Reports Menu

VDN Report

The real-time **VDN** report displays information about how calls to the specified VDNs have been handled.

VDN Call Profile Report

The VDN **Call Profile** report displays the numbers of answered or connected and abandoned calls to the specified VDN within the current interval. It also displays the percentage of calls that have been answered or connected within the acceptable service level.

Prerequisite System Administration

You must first define your acceptable service level and service level increments for this VDN in the VDN Call Profile Setup window. If you do not define your service level and increments, zero (0) is used for all increments (therefore, all calls appear in the first increment). For more information, see Chapter 8, “ACD Administration—VDN Call Profile Setup.”

VDN Skill Preference Report

The **VDN Skill Preference** report displays information about the call handling for the VDN as a whole and lists the number of calls handled by each of the VDN skill preferences.

Note

This report is only available if you have purchased the Vectoring and EAS features and the features are enabled on your switch (Generic 3 Version 2 and Generic 2.2 and later versions only).

See the Vectoring and EAS appendices in this book for additional information.

Input Window

You must fill in the report input window (Figure 3-21) to run the report. See Table 3-14 for descriptions of the fields on the input window.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 1

Rpts: Real: VDN: Report InputACD1

VDN(s): _____Run

Refresh rate in seconds: _____

Figure 3-21: VDN Reports Input Window Example

Input Fields

Table 3-14 includes definitions for and directions on completing all fields on real-time VDN report input windows. See Figure 3-21 for an example of the input window.

Table 3-14: VDN Reports Input Fields

Field	Definition
VDN(s) :	Enter the name(s) or number(s) of the VDN(s) you want included in the report. Any name(s) you want to appear on the report must have been previously defined and entered in the Dictionary subsystem.
Refresh rate in seconds:	Enter the number of seconds (3 to 600) to specify how long <i>CentreVu</i> CMS should wait for each update of the report data. The default for the Refresh rate in seconds field in this window is your assigned minimum refresh rate plus 15 seconds. To find out what your minimum refresh rate is, or to change it, check with your <i>CentreVu</i> CMS administrator.

General Information

Audience

Chapter 4 is written for the *CentreVu™* Call Management System (*CentreVu CMS*) supervisors and administrators who use the historical report subsystem to generate reports.

Introduction

Historical reports display, report, and summarize the past performance of any measured subset of the ACD. Historical reports display past data for various agent, split/skill, trunk/trunk groups, VDN, and vector activities such as number of ACD calls, abandoned calls, average talk time, average speed of answer, etc.

Historical Reports Menu

From this menu, you can view any historical report. If you have purchased the *CentreVu CMS* Vectoring package and the Graphics package, you are also able to view vectoring and graph reports. Also, you must have the Expert Agent Selection feature on the switch to view skill reports.

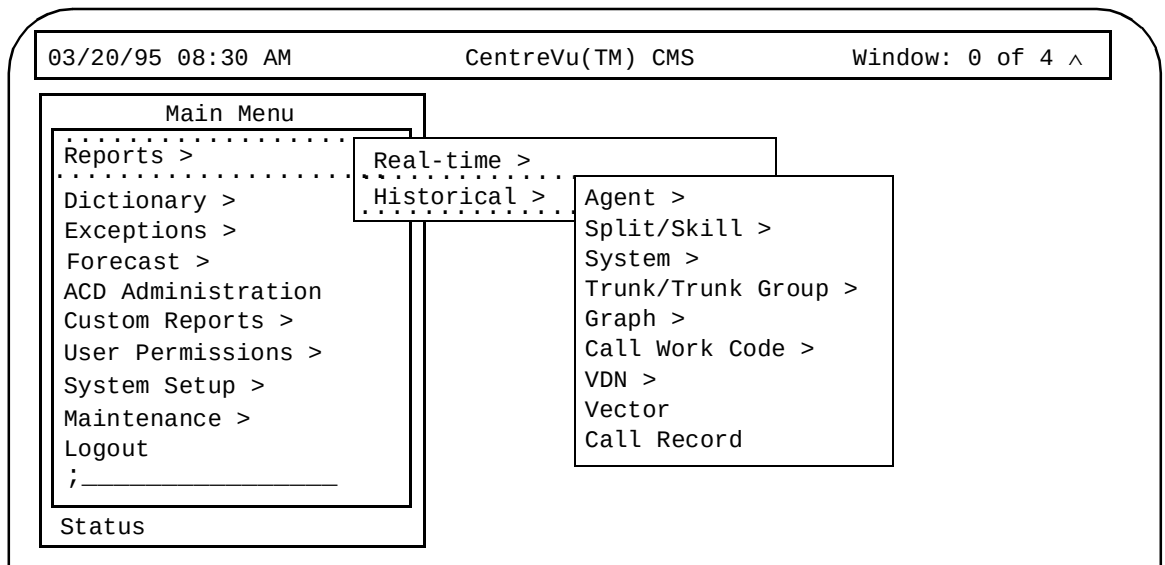


Figure 4-1: Historical Reports Menu

How This Chapter is Organized

This chapter gives a brief description of each available report, examples of the report input windows, and definitions of the input fields. It provides you with the information you need to complete any historical 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 R3V4 Reports* (AT&T 585-215-801) document.

Immediately following this introduction are:

- **Things to Know About All Historical Reports** — gives you information about things that can affect the information in historical reports and the types of reports available to you.
- **Prerequisite System Administration** — lists system administration that must be performed prior to using the Reports subsystem.
- **Relationships to Other Subsystems** — lists how the historical Reports subsystem interacts with other *CentreVu* CMS subsystems.

The following reports are described in this chapter:

- Agent Reports
- Split/Skill Reports
- System Reports
- Trunk/Trunk Group Reports
- Graph Reports
- Call Work Code Reports
- VDN Reports
- Vector Report
- Call Record Report

Each report description has the following headings:

- **Prerequisite System Administration** — included only if a report has specific administration that must be performed in order to run successfully.
- **Relationships to Other Subsystems** — included only if a report has specific relationships that do not apply to the majority of real-time reports.
- **Input Window(s)** — if a series of reports have similar input windows, the example is shown only at the beginning of the section. If a series of reports (graph reports specifically) have input windows that are specific to each report, the input window is shown with the report description.
- **Input Fields** — if a series of reports have similar input fields, the field definitions are listed only at the beginning of the section. If a series of reports (graph reports specifically) have input windows that are specific to each report, the field definitions are shown with the report description.

Things to Know About All Historical Reports

You need to keep the following things in mind when working with historical reports.

General

- Totals for reports are on the top line of the report under the headings.
- Historical reports are generally available in interval, daily, weekly, and monthly versions. Not all reports are available in all versions. The section on each report gives the available report versions.
- If numerical data is longer than the length of its display field, the field is filled with asterisks (*) and the data is not printed. You can modify the standard reports to increase the field lengths using the Custom Reports screen. See the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document for more information.
- If you want to run a daily report which includes data for today, you must do Data Summarizing first (see Chapter 10, “System Setup—Data Summarizing”).
- *CentreVu* CMS can store intrahour data for up to 62 days, daily summary data for 5 years, and weekly/monthly summary data for 10 years. Even though *CentreVu* CMS can store data this long, your system may have different storage limits. See the Data Storage Allocation window in the System Setup subsystem for your particular limits.
- If for any reason your 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.

- See Chapter 2, “User Basics,” for the action list procedure Run, common rules for field entry items, and field editing information.

Report Types

There are four types of historical reports:

- Interval
- Daily
- Weekly
- Monthly.

Some reports are available in all types, while others are not. The description of each report tells you which types are available for that report.

Interval Reports

Interval reports contain breakdowns of data by the interval you have defined. The report intervals can be 15, 30, or 60 minutes. Interval reports can help you identify your high and low call volumes, and thereby manage your call center more easily. You set your interval length in the Storage Intervals window. See Chapter 10, “System Setup—Storage Intervals,” for more information.

Daily, Weekly, and Monthly Reports

The **daily** reports display summarized interval data, one line for each day, for the day(s) you specify. The **weekly** reports display summarized daily data for the week(s) you specify, one line for each week; and the **monthly** reports display summarized daily data for the month(s) you specify, one line for each month.

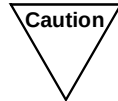
Note

Data for the weekly report comes from the weekly tables. The weekly tables contain only summarized daily data for a complete week. The same is true for monthly reports. The monthly tables contain only summarized daily data for a complete month. If you want a report for a week of daily data or a month of daily data with one line per day, you need to order a daily report and specify the appropriate range of days.

Items That Can Affect Report Data

At times your report data may look peculiar or data may be missing. The following items could cause this.

Switch Clock



If at all possible, **do not** change the switch clock unless data collection is off. If you change the clock while data collection is on, interval data is marked as incomplete.

If you cannot turn off data collection, adhere to the following guidelines:

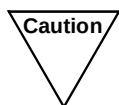
- Small changes (several minutes forward or backward) should be done in the middle of the data collection interval so the change does not cross different intervals. Data for that interval(s) are marked as incomplete, and depending on agent activity prior to the clock change, interval times may not add up as expected on the Historical Summary by Interval reports.
- Larger time changes (such as daylight savings time) that cross interval boundaries should be done with extreme care and at the **beginning** of the interval. For example, if you need to make a 1-hour adjustment, make it from 8:01 to 9:01. If you make it at the end of the interval (7:59 to 8:59), you may inadvertently cause two data archives to occur at the same time, which may cause loss of interval data.

Link Down

If the link to the switch goes down while an agent is logged in, real-time reports display agents in the state they were in before the link went down. When the link starts to come up, the agent is put in the OTHER state. Therefore, if you compare staffed time on the historical Split Daily report with the Login/Logout time, you could see a difference.

Service Level Increments for Call Profile Reports

You must define your acceptable service level and service level increments for splits/skills and VDNs in the Split/Skill Call Profile Setup and VDN Call Profile Setup windows. If you do not define your service level and increments, then zero (0) is used for all increments, and all calls appear in the first increment. For more information, see Chapter 8, “ACD Administration—Split/Skill Call Profile Setup.”



If you change the increments while data collection is turned on, data are distorted for the interval in which you made the change. *CentreVu* CMS deletes the call profile data already collected for that interval and only keeps the call profile data that occurred after the change. Then *CentreVu* CMS tries to combine the call profile data gathered both before and after the change into a single daily record of call profile data. As a result, some data is placed in the wrong service level increments.

Daily, weekly, and monthly summaries that include the date of the increment change look peculiar. The time increments shown on the report for the changed increment in the Call Profile Setup window are the maximum values entered for each increment before or after the change. For example, if you change the increments from all “0s” to 1, 3, 5, 10, etc., the Call Profile report shows 1, 3, 5, 10, etc. 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.

You should change the time increments early in the day, preferably before agents begin staffing and before a large amount of data has been gathered. Also change the profile 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 profile data for the month in which you make profile changes.

Backing Up Agent Login/Logout Tables

If you back up the agent login/logout table while agents are logged in, only the login portion has an entry for the backup. The logout portion of the table is 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 some later date, the logout entry will eventually be filled in when the agents in question log in again and then log out. The next restore records will have the old entry for the login time, and the old logout time will be filled in with the same time as the first login/logout entry for the agent after the data was restored.

Agent	Login date/time	Logout date/time
Smith, M	2/13/95 8:05AM	2/17/95 4:30PM
Smith, M	2/17/95 8:00AM	2/17/95 4:30PM

Call-Based Data Versus Interval-Based Data

Call-based data are committed to the database after a call completes, and interval-based data represents the amount of time during a collection interval spent doing a particular activity. Therefore, if you compare data in a report that contains both call-based and interval-based data, you could see a difference.

Interactions with Switch Features

See the "Database Items and Calculations" appendix in the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document for the interactions with switch features.

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. See Chapter 1, "Introduction".

Prerequisite System Administration

The following system administration tasks need to be completed before running historical reports.

Dictionary

If you want names to appear on split/skill, trunk group, agent group, ACD, call work code, VDN, and 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.

ACD Administration

To get Split/Skill Call Profile or VDN Call Profile reports, you must first define your acceptable service level and service level increments for the split(s)/skill(s) and VDN(s) in the Split/Skill Call Profile Setup and VDN Call Profile Setup window in the ACD Administration subsystem (see Chapter 8, “ACD Administration”).

To get an Agent Trace report, you must first start collecting agent trace data. To start an agent trace, see Chapter 8, “ACD Administration—Activate Agent Trace.”

User Permissions

For a report to display data, you must have **read** permission for the split/skill, trunk group, ACD, vector, or VDN. For example, if you have read permission for Splits 1, 2, and 4, and try to run a report on Splits 1, 4, and 5, you receive data for Splits 1 and 4 but not for Split 5, because you do not have read permission for that split. See Chapter 9, “User Permissions,” for more information.

System Setup

You need to specify what agent data and how much agent data will be stored for later use in agent trace reports in the System Setup subsystem—Agent Trace Record Contents window. See Chapter 10, “System Setup—Agent Trace Record Contents.”

Relationships to Other Subsystems

Historical reports interact as stated with the following subsystems.

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 (see Maintenance: Error Log Report). A message is not sent to the Error Log if the report runs successfully. The Timetable List All window also shows the status (successful or failed) of a timetable's last run.

You can place any historical report on a shortcut.

See Chapter 5, "Timetable and Shortcut".

Dictionary

You can find all database items and calculations used in historical reports in the Dictionary subsystem.

See Chapter 6, "Dictionary".

System Setup

The following windows relate to historical reports:

- You can change the amount of data that *CentreVu* CMS stores using the Data Storage Allocation window in the System Setup subsystem.
- The Free Space Allocation window in the System Setup subsystem is used to determine if space is available to be allocated to store data.
- When you request a weekly report, the date or range of dates entered must correspond to the "week start day" selected in the Storage Intervals window. For example, if you want data archived every Sunday, then the date you enter for a weekly report must fall on a Sunday. If you do not know what this day is, enter a range, check with your *CentreVu* CMS administrator, or view the Storage Intervals window.
- If you are not going to use the default storage interval values, you should specify your storage intervals in the Storage Intervals window before running historical reports.

See Chapter 10, "System Setup".

Agent Reports

From the Agent Reports menu (Figure 4-2) you can get specific information about your agents. This information could include looking at every agent activity and the time it occurred for a particular agent in the Agent Trace report, an individual agent's performance by split or skill in the Agent Split/Skill report, or looking at how a group of agents is performing in the Group Summary report. Each agent report is described.

If you need to know what the Agent reports look like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

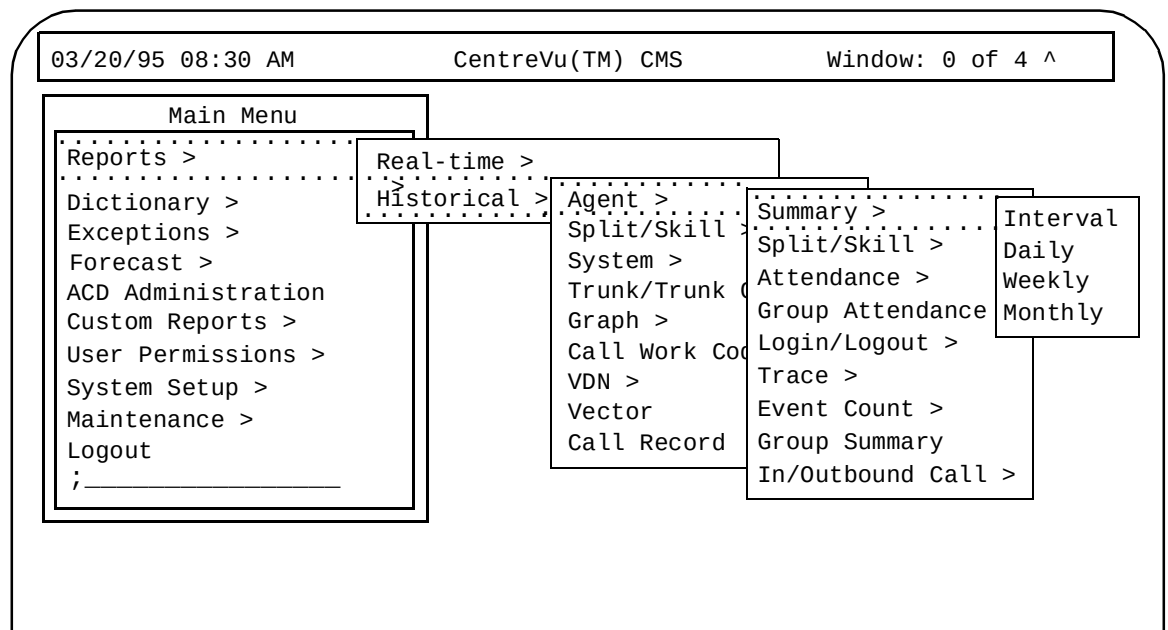


Figure 4-2: Agent Reports Menu

Summary Report

The Agent **Summary** report shows the activities and performance of an individual agent for all splits or skills for which the agent is a member. It represents the totals over the specified time period for all splits or skills the agent was logged into.

The Agent Summary report is available in interval, daily, weekly, or monthly versions.

Agent Split/Skill Report

The Agent **Split/Skill** report shows an individual agent's performance by split or skill.

The Agent Split/Skill report is available in interval, daily, weekly, or monthly forms.

Attendance Report

The Agent **Attendance** reports give the total staffed time, ACD time, ACW time, AUX time, time in the ringing state, extension time, available time, and the number of calls handled by an agent for the specified time period for all splits or skills the agent was logged into.

The Agent Attendance report is available in daily, weekly, or monthly versions.

Group Attendance Report

The Agent **Group Attendance** report summarizes staffed time, ACD time, ACW time, AUX time, time in the ringing state, extension time, available time, and number of calls handled for each agent in an agent group for the specified time period.

The Group Attendance report is available in daily, weekly, and monthly forms.

Prerequisite System Administration

- You must create your agent group in the Dictionary subsystem first. See Chapter 6, "Dictionary—Agent Groups," for more information.

Login/Logout (Split) Report

The Agent **Login/Logout** (Split) report shows the agent login and logout times for agents in a split on a specified day.

This report item appears on the menu only if you do not have the EAS feature.

This report is available in daily form only.

Login/Logout (Skill) Report

The Agent **Login/Logout** (Skill) report shows the times agents in a given skill logged in and logged out, and the report lists the skills with which the agents logged in and out.

This report item appears on the menu only if you have purchased and enabled the EAS feature on the Generic 2.2 or Generic 3 Version 2 or later switch.

This report is available in daily form only.

- For Generic 3 Version 2 switches, the skills are preceded by the skill type ("p" for primary or "s" for secondary).
- If you have a Generic 2.2 with the Expert Agent Selection (EAS) feature and agents are using the default skill plus four other skills, you will want to modify the report to display five skills instead of just four. See the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document for instructions on how to create a custom report.

Agent Trace Report

The **Agent Trace** report lists each agent activity and the time it occurred. This information could be useful when evaluating how well agents are using their time.

Agents can be in any one of the following states:

LOGON	The agent logged into a split or skill.
LOGOFF	The agent logged out of a split or skill.
ACDIN	The agent is on an inbound ACD call.
ACDOUT	The agent is on an outbound ACD call (applies only to the Outgoing Call Management application of ASAI).
ACW	The agent is in after call work.
ACWIN	The agent is on an inbound call while in after call work.
ACWOUT	The agent is on a outbound call while in after call work.
AUX	The agent is in auxiliary work.
AUXIN	The agent is on an inbound call while in AUX work or available.
AUXOUT	The agent is on an outbound call while in AUX work or available.
AVAILABLE	The agent is available to take ACD calls.
DACD	The agent is on a direct-agent ACD call.
DACW	The agent is in after call work associated with a direct-agent ACD call.
UNKNOWN	The agent state is not available.

Relationships to Other Subsystems

ACD Administration

You must activate an agent trace to obtain an Agent Trace report. See Chapter 8, "ACD Administration—Activate Agent Trace," to start an agent trace. You can activate a maximum of 25 agent traces at any one time.

Since the agent trace data file rolls over when it becomes full and old records are overwritten by new records, you need to print a copy of old traces if you want to keep a record.

You stop tracing an agent in the Activate Agent Trace window in the ACD Administration subsystem. See Chapter 8, "ACD Administration — Activate Agent Trace," for more information.

System Setup

The following information does not appear in the standard Agent Trace report but is available for use in custom reports:

- Assist Activated
- Calling Party
- Call Work Code (containing the last call work code entered during the call or during ACW)
- Caller on Hold
- Digits Dialed (shows the digits the agent dialed on an outgoing call or the agent's login ID for a LOGON event)
- External Call Originated
- Keyboard Dialed
- Malicious Call Trace
- On Conference
- Transfer Completed.

You must administer the collection of data for these optional items in the Agent Trace Record Contents window in the System Setup subsystem. See Chapter 10, "System Setup—Agent Trace Record Contents," for instructions.

You must customize this report to display any of the extra items. See the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document for more information on creating and using custom reports.

Event Count Report

The Agent **Event Count** report shows the total number of times an individual agent pressed an **Event Count** (Stroke Count) button for all splits/skills. An Event Count button can represent any call event, including a successful sale, a call from a demographic category, or a response to a promotion. *CentreVu* CMS records an event count each time an agent presses an Event Count button on his or her voice terminal while the agent is on an ACD call or in call-related after call work.

- Event counts are only recorded while an agent is on an ACD call or in call-related ACW. If an agent is in AUTO-IN mode, the ACD call terminates when the caller hangs up. In this case, an event count cannot be recorded after the caller hangs up.

To track all event counts, it is recommended that agents use the MANUAL-IN mode because the agent goes to ACW when the caller hangs up, and *CentreVu* CMS still records an event count made during that state. As long as the agent records the event before returning to the AVAIL mode, all events are counted.

- This report is available with Generic 2, System 85, and Generic 3 switches only.
- Event Counts (stroke counts) require a Special Development bid with Generic 1.1.

This report is available in interval, daily, weekly, and monthly versions.

Group Summary Report

The Agent **Group Summary** reports summarize the daily activities of every agent within a specific group. Agents in a group may share common characteristics, such as being newly hired or top performers, or they may simply be part of a more manageable subdivision of a split or skill. You can use this report to compare individuals within a group.

This report lists the totals for each agent in the group summed over all splits/skills that the agent was logged into during the time period covered in the report.

This report is available in daily, weekly, or monthly forms.

Prerequisite System Administration

Before you can obtain a Group Summary report, you must first create and name your agent group in the Dictionary subsystem. See Chapter 6, "Dictionary—Agent Groups."

Inbound/Outbound Call Report

The Agent **Inbound/Outbound Call** report is a detailed breakdown of the inbound and outbound calls handled by an agent. The report sums the total over all the splits or skills the agent was logged into for the specific period covered.

You must have the Outgoing Call Management application of ASAI for data to appear in the Outbound ACD columns.

This report is available in interval, daily, weekly, and monthly forms.

Input Windows

The following examples show what typical input windows look like for historical agent reports.

There are two basic windows used to request historical agent reports. Figure 4-3 and Figure 4-4 illustrate the generic agent report input windows. The input fields are defined in Table 4-1.

03/20/95 03:30 PM CentreVu(TM) CMS Window: 1 of 4 ^

Reports: Hist: Agent Summary: Interval acd1

Agent: Smith, H Run

Date: 1/15/95

Times: 11:05AM-12:05PM

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File, File name: _____

Figure 4-3: Agent-Based Agent Report Input Window

03/20/95 1:45 PM		CentreVu(TM) CMS	Window: 1 of 4 ^
Rpts: Hist: Agent: Login/Logout (Skill):		Input	acd1
Split/Skill: <u>Sales</u>		Run	
Login Date: <u>03/12/95</u>			
Report destination (Select One):			
<x> Terminal			
< > Printer, Printer name _____			
< > File,			
File name: _____			

Figure 4-4: Split/Skill-Based Agent Report Input Window

Input Fields

Table 4-1 includes definitions for and directions on completing all fields on historical Agent report input windows. See Figure 4-3 and Figure 4-4 for examples of the input windows.

Table 4-1: Agent Reports Input Fields

Field	Definition
Agent :	Enter the appropriate agent name or login ID.
Agent group: (daily, weekly, monthly)	Enter the appropriate group name. Make sure you enter the agent group name correctly. <i>CentreVu</i> CMS does not check to see if the group name you entered exists in the Dictionary subsystem. Therefore, if you enter a name that is misspelled, the report runs but does not contain data because the group does not exist. You should enter the correct group name and run the report again.
Split/Skill:	Enter the appropriate split/skill name or number.
Date: (interval)	Enter the date you would like the report to cover. You can use the month/day/year (for example, 3/21/95). You can use a "-" offset based on today's date (for example, -1 for yesterday).

Table 4-1: Agent Reports Input Fields (Contd)

Field	Definition
Dates: (daily, weekly, monthly)	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 No records found displays in the status line. The month start date must be the first day of the month.
Login Date:	Enter the date you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday).
Times: (Interval)	Enter the time you would like the report to cover. - You can use AM/PM format (for example, 7:30AM-5:00PM). - You can use military time format (for example, 7:30-17:00).

Table 4-1: Agent Reports Input Fields (Contd)

Field	Definition
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. 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.

* UNIX is a registered trademark of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

Split/Skill Reports

From the Split/Skill Reports menu (Figure 4-5) you can get specific information on your splits or skills. This information could include looking at the percentage of calls answered within your set service level by split/skill, how many calls were handled by each agent in a split/skill, or summarizing the activity for an entire split/skill by time. Each split/skill report is described in this chapter.

If you need to know what the Split/Skill reports look like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

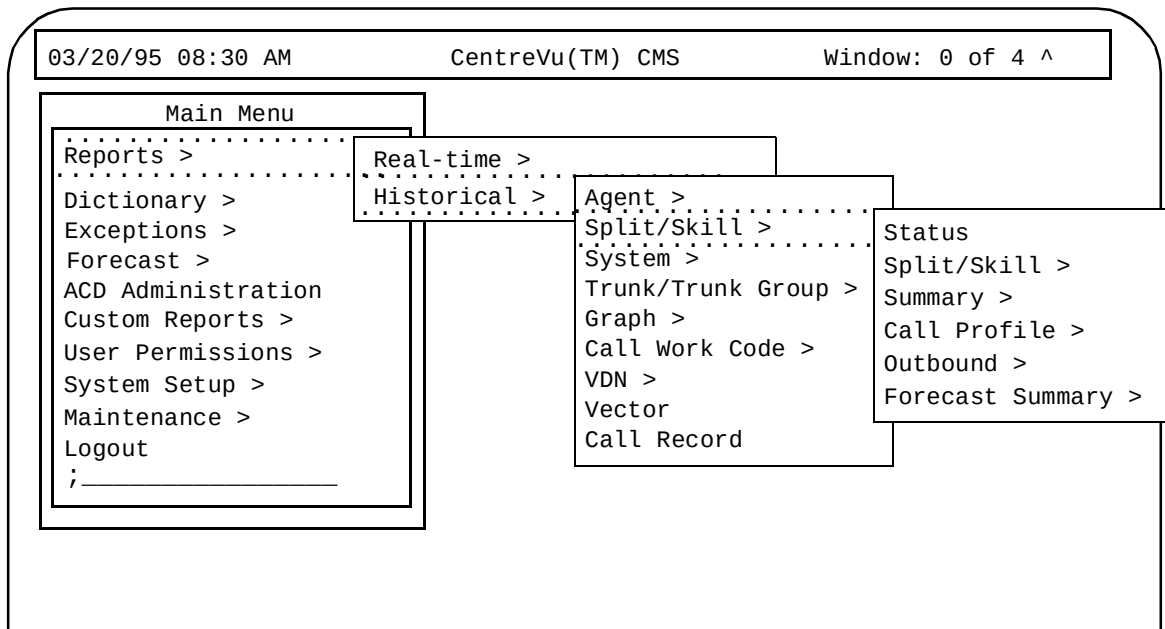


Figure 4-5: Split/Skill Reports Menu

Status Report

The Split/Skill **Status** report gives an overview of split/skill performance. This report lists the percentage of calls answered within your set service level, the total number of ACD calls for the split/skill, the total number of abandoned calls for the split/skill, the average speed of answer and average time to abandon for the split/skill.

If you display this report on your terminal for today's date, the data in the report is updated automatically at the end of each intrahour interval. The totals are cumulative for the day up to the last completed interval. If you send this report to a printer or file, the report is generated one time with the current values.

This report is available in daily form only.

Split/Skill Report

The **Split/Skill** report shows the calls handled, agent time and assists, and transfers and holds for each agent in a split/skill. This report shows only the time each agent worked in this particular split/skill. An agent could have worked in other splits/skills during the day.

This report is available in daily, weekly, and monthly summaries.

Summary Report

The Split/Skill **Summary** report summarizes the activity for an entire split or skill by time. You could use this report to analyze the overall performance of a split/skill or to compare splits/skills doing comparable work.

This report is available in interval, daily, weekly, and monthly forms.

Call Profile Report

The Split/Skill **Call Profile** report shows the number of calls answered and abandoned in time increments you administer. This report also displays your acceptable service level (defined in ACD Administration—Split/Skill Call Profile Setup window).

Since this report shows you how long it takes for calls to be handled or abandoned, it can tell you how long a caller is willing to wait for an agent before hanging up and what answering speed is required to reduce abandoned calls.

This report is available in daily, weekly, and monthly versions.

Prerequisite System Administration

You must define your acceptable service level and service level increments for this split/skill in the Split/Skill Call Profile Setup window. If you do not define your service level and increments, zero (0) is used for all increments, and all calls appear in the first increment. For more information, see Chapter 8, “ACD Administration—Split/Skill Call Profile Setup.”

Outbound Split/Skill Report

The **Outbound Split/Skill** report displays the numbers and average talk times for each type of outbound call for a given split/skill. It is useful primarily for splits/skills that use an adjunct to deliver outbound ACD calls or to dial outbound extension calls.

This report requires the Outgoing Call Management application of ASAI.

This report is available in interval, daily, weekly, and monthly forms.

Forecast Summary Report

The Agent **Forecast Summary** report summarizes the activity for an entire split or skill by time and gives you the forecasted number of agent positions required for a given interval and the forecasted calls for a given interval. You could use this report to analyze the overall performance of a split or skill and compare the forecasted numbers to your actual numbers.

Note

The Forecast Summary report is available only if you have purchased the Forecast feature.

For information on using the Forecast feature, refer to the *CentreVu™ CMS R3V4 Forecast* (AT&T 585-215-812) document

This report is available in the interval version only.

Prerequisite System Administration

Before running a forecast report, you should do the following:

- Define a current day configuration for the split/skill in the report.
- Run the Forecast Manager to collect forecast input data for the report. For **accurate** data, you should run the Forecast Manager daily for 4 weeks before running this report.
- See the *CentreVu™ CMS R3V4 Forecast* (AT&T 585-215-812) document for more information.

Input Window

Historical split/skill reports all use similar input windows. Figure 4-6 shows the standard input window, which may vary depending on whether you are generating an interval (includes Times: field), daily (asks only for one Date:), or weekly or monthly (asks for multiple Dates:).

The input fields are defined in Table 4-2.

03/20/95 1:30 PM CentreVu(TM) CMS Windows: 1 of 4 ^

Rpts: Hist: Split/Skill: Forecast Summary: Interval Input acd1

Split/Skill: _____ Run

Date: _____

Times: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File, File name: _____

Figure 4-6: Split/Skill Report Input Window

Input Fields

Table 4-2 includes definitions for and directions on completing all fields on historical Split/Skill report input windows. See Figure 4-6 for an example of the input window.

Table 4-2: Split/Skill Reports Input Fields

Field	Definition
Split/Skill:	Enter the appropriate split/skill name or number. See on-line help for the valid numerical entries for your particular switch.
Date: (interval)	Enter the date you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a “-” offset based on today's date (for example, -1 for yesterday).
Dates: (daily, weekly, monthly)	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a “-” offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.

Table 4-2: Split/Skill Reports Input Fields (Contd)

Field	Definition
Times: (Interval)	Enter the time you would like the report to cover. • You can use AM/PM format (for example, 7:30AM-5:00PM). • You can use military time format (for example, 7:30-17:00).
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. 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.

System Reports

Note Because each System report has an input window and input fields specific to that report, the input windows and field definitions for each report are listed with the report description.

From the System Reports menu (Figure 4-7), you can get summary data on a set of measured splits/skills for a particular ACD, summary data over all splits/skills for a particular ACD, and call data on different splits/skills and ACDs at the same time. Each system report is described in this section.

If you need to know what the System reports look like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

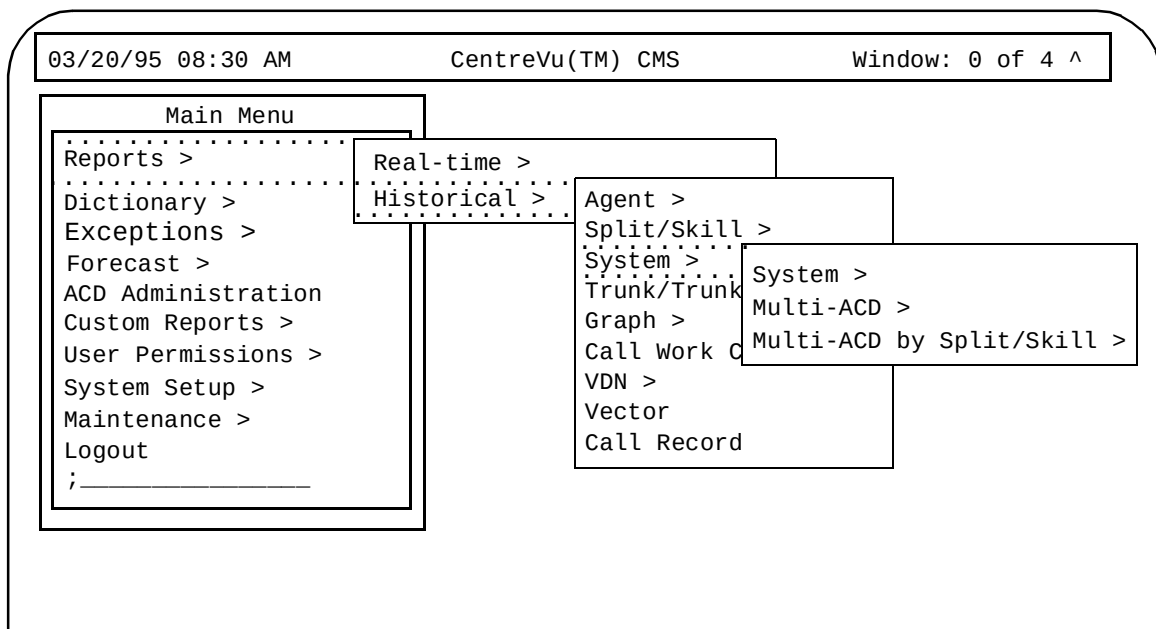


Figure 4-7: System Reports Menu

System Report

The **System** report summarizes the activity for a set of splits or skills for the same ACD. You can use this report to compare split/skill performance for splits or skills performing similar functions.

This report is available in daily, weekly, or monthly forms.

Input Window

Figure 4-8 is an example of the window you see when generating the System reports. Table 4-3 defines the input fields for you.

The screenshot shows a window titled "03/20/95 10:30 AM CentreVu(TM) CMS Windows: 1 of 4". Inside the window, there is a form titled "Rpts: Hist: System: Daily Input" with a "Run" button. The form contains the following fields:

- Split(s)/Skill(s): Sales; Service;Accounts Payable
- Date(s): 02/28/95
- Report destination (Select one):
 - <x> Terminal
 - < > Printer, Printer name _____
 - < > File,
 - File name: _____

Figure 4-8: System Report Input Window

Input Fields

Table 4-3 includes definitions for and directions on completing all fields on historical System report input windows. See Figure 4-8 for an example of the input window.

Table 4-3: System Reports Input Fields

Field	Definition
Splits/Skills:	Enter the appropriate split or skill names or numbers. See on-line help for the valid numerical entries for your switch.
Date(s) :	Enter the date for the day or the start date for the week or the month you would like the report to cover. • You can use the month/day/year (for example, 3/21/95). • You can use a “-” offset based on today's date (for example, -1 for yesterday). • For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.

Table 4-3: System Reports Input Fields (Contd)

Field	Definition
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. 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.

Multi-ACD System Report

The **Multi-ACD** system report summarizes data over all splits/skills in the ACD for each ACD requested. This allows you to evaluate and compare different ACD configurations to determine workload and call-handling performance. You could then choose different ACD configurations to balance workloads and/or reduce abandoned calls.

If you have vectoring, you may want to create a custom report that summarizes data over all VDNs instead of over all splits/skills.

This report is available in daily, weekly, and monthly versions.

Input Window

The historical multi-ACD reports all have similar input windows. Figure 4-9 is an example of the window you see when generating these reports. There is some variation in the input window depending on the type of report you are running (daily, weekly, monthly). Table 4-4 defines the input fields for you.

03/20/95 10:30 AMCentreVu(TM) CMSWindows: 1 of 4

Rpts: Hist: System: Multi-ACD: Daily Inputacd1

ACDs: _____Run

Date(s): _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 4-9: Multi-ACD System Daily Report Input Window

Input Fields

Table 4-4 includes definitions for and directions on completing all fields on historical System report input windows. See Figure 4-9 for an example of the input window.

Table 4-4: System Reports Input Fields

Field	Definition
ACDs:	Enter the appropriate ACD name(s) or number(s).
Date(s):	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.
Report destination (Select one):	Enter an <code>x</code> next to <code>Terminal</code>, <code>Printer</code>, or <code>File</code>. <code>Terminal</code> is the default destination. - If you selected <code>Printer</code> and want to use a printer other than your default printer, enter the printer name in addition to the <code>x</code>. - If you selected <code>File</code>, enter a file name, and then press Return. 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 (<code>/usr/<your login ID></code>) unless you specify a full path name.

Multi-ACD by Split/Skill Report

The **Multi-ACD by Split/Skill** report displays call-handling information on different splits/skills and ACDs at the same time. It allows you to evaluate and compare similar splits/skills in different ACDs and then determine workload and call-handling performance, agent reassignment, or other ACD configuration alternatives to balance workloads and/or reduce abandoned calls.

You can specify a list of splits/skills for each ACD desired.

You cannot customize this report.

This report is available in daily, weekly, and monthly versions.

Input Window

Figure 4-10 is an example of the Multi-ACD by Split/Skill report input window. The Date: field will vary (Date or Dates), depending on the type of report you are running (daily, weekly, monthly). Table 4-5 defines the input fields for you.

03/20/95 8:30 AMCentreVu(TM) CMSWindows: 1 of 4

Rpts: Hist: System: Multi-ACD by Split/Skill: Daily Inputacd1

Date(s):

Run

First ACD:

First split(s)/skill(s):

Second ACD:

Second split(s)/skill(s):

Third ACD:

Third split(s)/skill(s):

Fourth ACD:

Fourth split(s)/skill(s):

Report destination (Select one):

<x> Terminal

< > Printer, Printer name

< > File,

File name:

Figure 4-10: Multi-ACD by Split/Skill Daily Input Window

Input Fields

Table 4-5 includes definitions for and directions on completing all fields on historical System report input windows. See Figure 4-10 for an example of the input window.

Table 4-5: System Reports Input Fields

Field	Definition
Date(s) :	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.
First through Fourth ACD:	Enter the ACD name or number that corresponds to the following <code>Split(s)/Skill(s)</code> field.
First through Fourth Split(s)/Skill(s):	Enter the split/skill name(s) or number(s) for which you want to run the report. See on-line help for the valid numerical entries for your particular switch.

Table 4-5: System Reports Input Fields (Contd)

Field	Definition
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. 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.

Trunk/Trunk Group Reports

From the Trunk/Trunk Group menu (Figure 4-11), you can get reports that display traffic data for a single trunk, summarize the incoming and outgoing traffic of every trunk in a trunk group for a specific time period, the level of incoming and outgoing call traffic for an individual trunk group, or the busiest hour of the day for each trunk group you select.

If you need to know what the Trunk/Trunk Group reports look like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

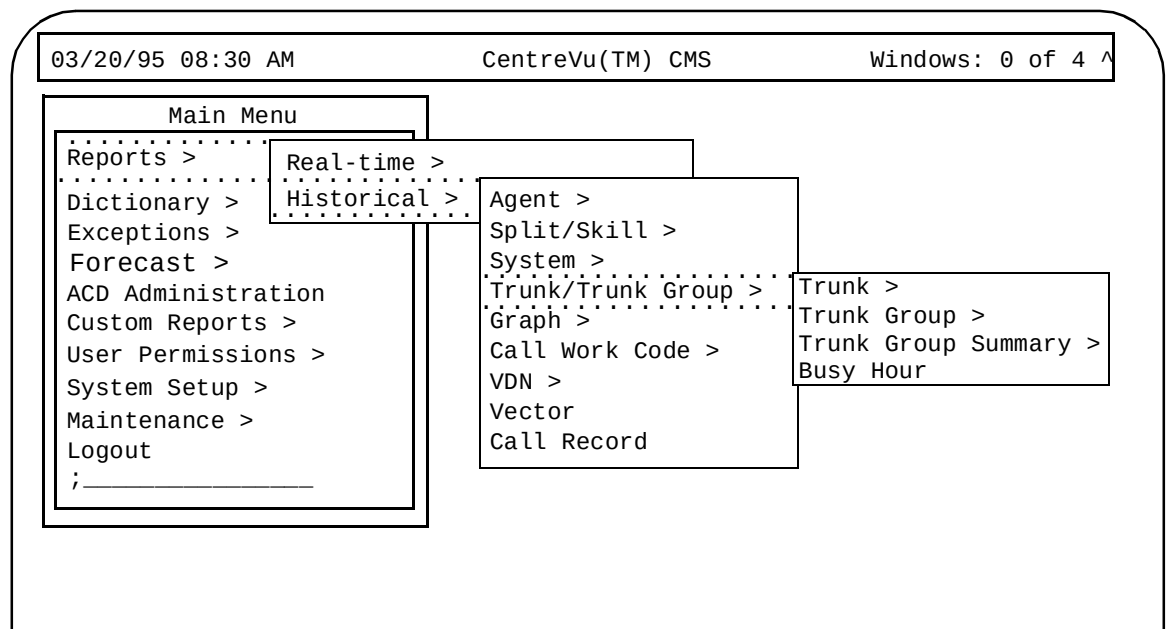


Figure 4-11: Trunk/Trunk Group Menu

Trunk Report

The **Trunk** report displays call traffic data for a single trunk. With this report, you can review trunks in any measured trunk group.

You can use this report to verify that call traffic levels for a trunk are appropriate throughout the time period specified. You can also monitor outgoing calls made throughout the day.

This report is available in interval, daily, weekly, and monthly versions.

Trunk Group Report

The **Trunk Group** report summarizes the incoming and outgoing traffic of every trunk in a trunk group for the specified time period. You could use this report to verify that the number of trunks available to your splits is appropriate and to monitor the number of outgoing calls.

Also because it lists trunks by physical location on the switch and totals trunk failures, the Trunk Group report can be useful for troubleshooting problems with trunks.

This report is available in daily, weekly, and monthly versions.

Trunk Group Summary Report

The **Trunk Group Summary** report shows the level of incoming and outgoing call traffic for an individual trunk group. You could use this report to verify that the number of trunks available to your splits is appropriate and to monitor the number of outgoing calls.

This report is available in interval, daily, weekly, and monthly versions.

Busy Hour by Trunk Group Report

The **Busy Hour** by Trunk Group report displays the busiest hour of the day for each trunk group you select.

The busiest hour is calculated as a set of contiguous intervals that make up an hour (one 60-minute interval, two 30-minute intervals, or four 15-minute intervals) in which the total holding time for the trunks in the trunk group was the maximum for the day.

This report is only available in the daily form and cannot be customized.

Input Windows

The following examples show what typical input windows look like for historical trunk/trunk group reports.

Trunk Reports Input Window

Historical trunk reports all have similar input windows. Figure 4-12 is an example of the input window you will see when you are requesting a historical trunk report

Figure 4-12: Trunk Report Input Window

Trunk Group Reports Input Window

All historical trunk group reports have similar input windows. Figure 4-13 is an example of the input window you will see when you are requesting a historical trunk group report.

Figure 4-13: Trunk Group Report Input Window

Input Fields

Table 4-6 includes definitions for and directions on completing all fields on historical Trunk/Trunk Group report input windows. See Figure 4-12 and Figure 4-13 for examples of the input windows.

Table 4-6: Trunk/Trunk Group Reports Input Fields

Field	Definition																														
Trunk group: (daily, weekly, and monthly)	Enter the appropriate trunk group name or number. See on-line help for the valid numerical entries for your particular switch.																														
Trunk location: (interval, daily, weekly, and monthly)	Enter the trunk number (for example, System 85: 010430101) that corresponds to the physical location of the equipment. See the information below. <table><thead><tr><th></th><th>Module</th><th>Cabinet</th><th>Carrier</th><th>Slot</th><th>Circuit</th></tr></thead><tbody><tr><td>Generic 2.1, Generic 2.2, and System 85 R2V4</td><td>00-30</td><td>00-07</td><td>0-3</td><td>00-21</td><td>00-03</td></tr><tr><td>Generic 2.1 with Universal Modules</td><td>00-30</td><td>00</td><td>A-E</td><td>01-20</td><td>00-11</td></tr><tr><td>Generic 1.1, Generic 3i</td><td>NA</td><td>01-03</td><td>A-E Must be uppercase</td><td>01-20</td><td>01-24</td></tr><tr><td>Generic 3r</td><td>NA</td><td>01-22</td><td>A-E Must be uppercase</td><td>01-20</td><td>01-24</td></tr></tbody></table>		Module	Cabinet	Carrier	Slot	Circuit	Generic 2.1, Generic 2.2, and System 85 R2V4	00-30	00-07	0-3	00-21	00-03	Generic 2.1 with Universal Modules	00-30	00	A-E	01-20	00-11	Generic 1.1, Generic 3i	NA	01-03	A-E Must be uppercase	01-20	01-24	Generic 3r	NA	01-22	A-E Must be uppercase	01-20	01-24
	Module	Cabinet	Carrier	Slot	Circuit																										
Generic 2.1, Generic 2.2, and System 85 R2V4	00-30	00-07	0-3	00-21	00-03																										
Generic 2.1 with Universal Modules	00-30	00	A-E	01-20	00-11																										
Generic 1.1, Generic 3i	NA	01-03	A-E Must be uppercase	01-20	01-24																										
Generic 3r	NA	01-22	A-E Must be uppercase	01-20	01-24																										
Date: (interval)	Enter the date you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a “-” offset based on today's date (for example, -1 for yesterday).																														

Table 4-6: Trunk/Trunk Group Reports Input Fields (Contd)

Field	Definition
Dates: (daily, weekly, monthly)	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.
Times: (interval)	Enter the time you would like the report to cover. - You can use AM/PM format (for example, 7:30AM-5:00PM). - You can use military time format (for example, 7:30-17:00).
Report destination (Select one):	Enter an <code>x</code> next to <code>Terminal</code>, <code>Printer</code>, or <code>File</code>. <code>Terminal</code> is the default destination. - If you selected <code>Printer</code> and want to use a printer other than your default printer, enter the printer name in addition to the <code>x</code>. - If you selected <code>File</code>, enter a file name and then press <code>Return</code>. 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 (<code>/usr/<your login ID></code>) unless you specify a full path name.

Graph Reports

Note

Because each Graph report has an input window and input fields specific to that report, the input windows and field definitions for each report are listed with the report description.

You must have purchased the Graphics option to use these reports.

Historical graph reports allow you to see selected reports in a bar-graph form and are available only with the separately purchased Graphics Package. These reports display various historical call-handling information such as the number of calls waiting in queue, how long callers waited to be answered, and the percentage of calls answered within your service level. Graph reports can be displayed on color or monochrome terminals.

The Graph menu (Figure 4-14) follows, along with additional graph-report information and descriptions for each graph report.

If you need to know what the Graph reports look like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

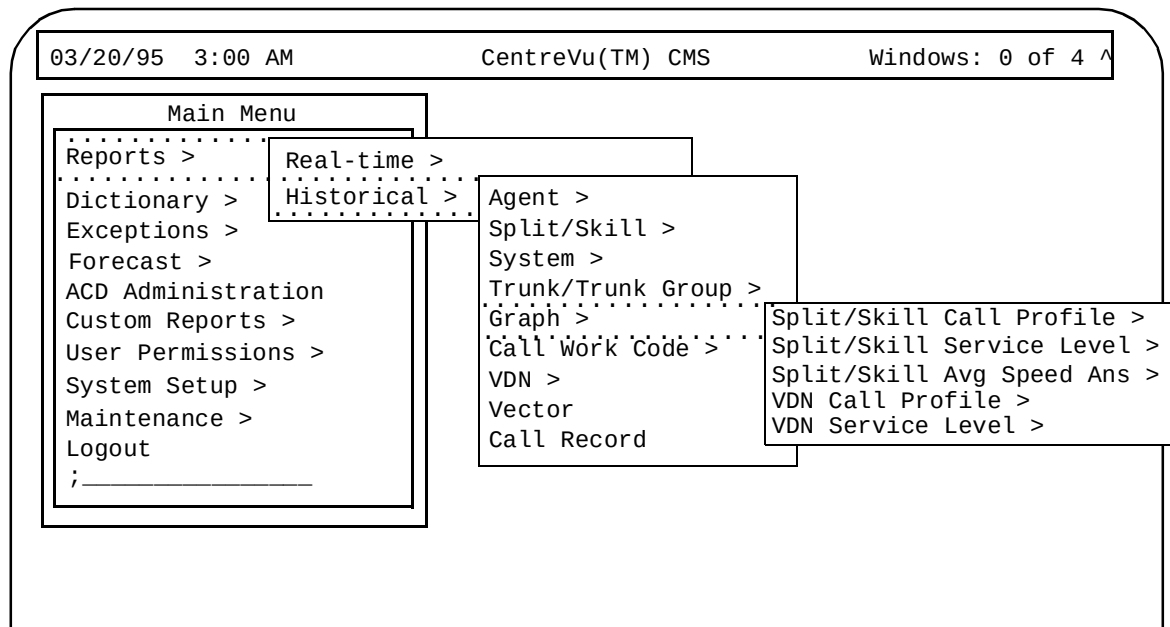


Figure 4-14: Graph Reports Menu

Split/Skill Call Profile Graph

The **Split/Skill Call Profile Graph** report is a bar graph showing, in increments of progressively longer wait times, the number of incoming calls handled and abandoned in a split/skill during the specified time period. This report also displays your acceptable service level (defined in ACD Administration—Split/Skill Call Profile Setup window).

Since a bar graph can quickly show you how long it takes for calls to be handled or abandoned, it can visually show you how long a caller is willing to wait for an agent before hanging up and what answering speed is required to reduce abandoned calls.

This report is available in daily, weekly, and monthly versions.

Prerequisite System Administration

You must define your acceptable service level and service level increments for this split/skill in the Split/Skill Call Profile Setup window. If you do not define your service level and increments, then zero (0) is used for all increments, and all calls appear in the first increment. For more information, see Chapter 8, “ACD Administration—Split/Skill Call Profile Setup.”

Input Window

You must complete the report input window (Figure 4-15) to run the report. See Table 4-7 for descriptions of the fields on historical Split/Skill Call Profile graph report input window.

03/20/95 2:15 PM CentreVu(TM) CMS Windows: 1 of 4 ^

Rpts: Hist: Graph: Split/Skill Call Profile: Daily Input acd1

Split/Skill: _____ Run

Date: _____

Maximum number of calls answered: _____

First calls abandoned threshold: _____

Second calls abandoned threshold: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 4-15: Split/Skill Call Profile Graph Report Input Window**Input Fields**

Table 4-7 includes definitions for and directions on completing all fields on the historical Split/Skill Call Profile graph report input window. See Figure 4-15 for an example of the input window.

Table 4-7: Split/Skill Call Profile Graph Report Input Fields

Field	Definition
Split/Skill:	Enter the split/skill name or number that you want to view in this graph. See on-line help for the valid numerical entries for your particular switch.
Date:	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a “-” offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.
Maximum number of calls answered:	Enter the maximum number of calls that you anticipate could be answered during any increment. - This number appears on the vertical axis of the bar graph under <code>Answered</code>. - The bars in this graph equal or exceed this number when they are at maximum height.

Table 4-7: Split/Skill Call Profile Graph Report Input Fields (Contd)

Field	Definition
First calls abandoned threshold:	Enter the number of abandoned calls that separate the Normal condition from the Caution condition. • This number must be less than the number entered in the Second calls abandoned threshold field. • The bars in this graph change color/intensity when the first threshold is met or exceeded.
Second calls abandoned threshold:	Enter the number of abandoned calls that separate the Caution condition from the Warning condition. • This number must be greater than the number entered in the First calls abandoned threshold field. • The bars in this graph change color/intensity when the second threshold is met or exceeded.
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. 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.

Split/Skill Service Level Graph

The **Split/Skill Service Level Graph** report displays the percentage of split/skill ACD calls answered within your designated service level for the given time period. This report allows you to see quickly where the split/skill has difficulty in maintaining the target service level.

Note

Activation of thresholds is reversed for the bars in this report. That is, as the percentage of calls within the service level goes down (and bars get shorter), bars change to the Caution color, and then to the Warning color.

This report is available in interval and daily versions.

Prerequisite System Administration

You must first define your acceptable service level for this split/skill in the Split/Skill Call Profile Setup window. See Chapter 8, “ACD Administration—Split/Skill Call Profile Setup,” for more information.

Input Window

You must complete the report input window (Figure 4-16) to run the report. See Table 4-8 for descriptions of the fields on historical Split/Skill Service Level graph report input window.

03/20/95 2:15 PM CentreVu(TM) CMS Windows: 1 of 1 ^

Rpts: Hist: Graph: Split/Skill Service Level: Interval Input acd1

Split/Skill: _____ Run

Date(s): _____

Times: _____

Second Service Level Percentage Threshold: ____

First Service Level Percentage Threshold: ____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 4-16: Split/Skill Service Level Graph Report Input Window

Input Fields

Table 4-8 includes definitions for and directions on completing all fields on the Split/Skill Service Level graph report input window. See Figure 4-16 for an example of the input window.

Table 4-8: Split/Skill Service Level Graph Report Input Fields

Field	Definition
Split/Skill:	Enter the split/skill name or number that you want to view in this graph. See on-line help for the valid numerical entries for your particular switch.
Date(s):	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 No records found displays in the status line. The month start date must be the first day of the month.
Times: (interval)	Enter the time you would like the report to cover. - You can use AM/PM format (for example, 7:30AM-5:00PM). - You can use military time format (for example, 7:30-17:00).

Table 4-8: Split/Skill Service Level Graph Report Input Fields (Contd)

Field	Definition
Second Service Level Percentage Threshold:	Enter the service level percentage below which you want the graph to change from the Normal condition to the Caution condition. This threshold is the Caution condition level. • This number must be greater than the number entered in the First Service Level Percentage Threshold. • Because the bars in this report work in reverse, the Caution condition bar(s) are lower than the Normal condition bar(s). Any percentage that meets or falls below the value entered in this field indicates a Caution condition.
First Service Level Percentage Threshold:	Enter the service level percentage below which you want the graph to change from the Caution condition to the Warning condition. This threshold is the Warning condition level. • This number must be less than the number entered in the Second Service Level Percentage Threshold field. • Because the bars in this report work in reverse, the Warning condition bar(s) are lower than the Caution condition bar(s). Any percentage that meets or falls below the value enter in this field indicates a Warning condition.
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. 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.

Split/Skill Avg Speed Answer Graph

The **Split/Skill Average Speed Answer Graph** report shows the average speed of answer for split or skill ACD calls during the time period covered in the report. This allows you to see quickly where the split/skill has difficulty in maintaining the appropriate speed of answer.

This report is available in interval and daily versions.

Input Window

You must complete the report input window (Figure 4-17) to run the report. See Table 4-9 for descriptions of the fields on the Split/Skill Average Speed Answer graph report input windows.

03/20/95 2:15 PM CentreVu(TM) CMS Windows: 1 of 1 ^

Rpts: Hist: Graph: Split/Skill Avg Speed of Answer: Interval Input acd1

Split/Skill: _____

Date: _____

Times: _____

Maximum average speed of answer (secs): _____

First avg answer speed threshold: _____

Second avg answer speed threshold: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Run

Figure 4-17: Split/Skill Avg Speed Answer Graph Report Input Window

Input Fields

Table 4-9 includes definitions for and directions on completing all fields on historical Graph report input windows. See Figure 4-15 through Figure 4-19 for examples of the input windows.

Table 4-9: Split/Skill Avg. Speed Answer Graph Report Input Fields

Field	Definition
Split/Skill:	Enter the split/skill name or number that you want to view in this graph. See on-line help for the valid numerical entries for your particular switch.
Date:	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 No records found displays in the status line. The month start date must be the first day of the month.
Times: (interval)	Enter the time you would like the report to cover. - You can use AM/PM format (for example, 7:30AM-5:00PM). - You can use military time format (for example, 7:30-17:00).
Maximum average speed of answer (secs):	Enter (in seconds) the maximum average speed of answer for ACD calls in this split. The bars in the graph equal or exceed this number when they are at maximum height.

Table 4-9: Split/Skill Avg. Speed Answer Graph Report Input Fields (Contd)

Field	Definition
First avg answer speed threshold:	Enter the number of seconds that separate the average speed of answer Normal condition from the Caution condition. • This number must be less than the number entered in the Second avg answer speed threshold. The bars in the graph change color/intensity when this first threshold is met or exceeded.
Second avg answer speed threshold:	Enter the number of seconds that separate the average speed of answer Caution condition from the Warning condition. • This number must be greater than the number entered in the First avg answer speed threshold. • The bars in the graph change color/intensity when this second threshold is met or exceeded.
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. 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.

VDN Call Profile Graph

The **VDN Call Profile Graph** report displays, in segments of progressively longer wait time, the numbers of answered/connected and abandoned calls that were being processed by a VDN in the selected time frame. These wait time segments, or service level increments, are defined in the VDN Call Profile Setup window in the ACD Administration subsystem.

The VDN Call Profile Graph report also displays the acceptable service level administered for the VDN and the percentage of calls that have been answered/connected within that service level.

This report is available only if you have purchased the *CentreVu* CMS Vectoring feature and Graphics package.

The report can display daily, weekly, or monthly data.

Prerequisite System Administration

You must first define your acceptable service level and service level increments for this VDN in the VDN Call Profile Setup window (see Chapter 8, "ACD Administration—VDN Call Profile Setup"). If you do not define your service level and increments, then zero (0) is used for all increments, and all calls appear in the first increment.

Input Window

You must complete the report input window (Figure 4-18) to run the report. See Table 4-10 for descriptions of the fields on the input window.

03/20/95 2:45 PM CentreVu(TM) CMS Windows: 1 of 1

Rpts: Hist: Graph: VDN Call Profile: Daily Input acd1

Run

VDN: _____

Date: _____

Maximum number of calls ans/conn: _____

First calls abandoned threshold: _____

Second calls abandoned threshold: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File, File name: _____

Figure 4-18: VDN Call Profile Graph Report Input Window

Input Fields

Table 4-10 includes definitions for and directions on completing all fields on VDN Call Profile graph report input window. See Figure 4-18 for an example of the input window.

Table 4-10: VDN Call Profile Graph Report Input Fields

Field	Definition
VDN :	Enter the name or number of the VDN that you want to view in this graph.
Date :	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.
Maximum number of calls ans/conn :	Enter the maximum number of calls that you anticipate could be answered during any increment. - This number appears on the vertical axis of the bar graph under <code>Answered</code> or <code>Ans/Conn</code>. - The bars in this graph equal or exceed this number when they are at maximum height.

Table 4-10: VDN Call Profile Graph Report Input Fields (Contd)

Field	Definition
First calls abandoned threshold:	Enter the number of abandoned calls that separate the Normal condition from the Caution condition. • This number must be less than the number entered in the Second calls abandoned threshold field. • The bars in this graph change color/intensity when the first threshold is met or exceeded.
Second calls abandoned threshold:	Enter the number of abandoned calls that separate the Caution condition from the Warning condition. • This number must be greater than the number entered in the First calls abandoned threshold field. • The bars in this graph change color/intensity when the second threshold is met or exceeded.
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. 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.

VDN Service Level Graph

The **VDN Service Level Graph** report displays, for each intrahour interval (or day) specified, the percentage of calls that were answered/connected within the service level (as specified on the VDN Call Profile Setup window).

Note

Activation of thresholds is reversed for the bars in this report. That is, as the percentage of calls within service level goes down (and bars get shorter), bars change to the Caution color, and then to the Warning color.

This report is only available if you have purchased the *CentreVu* CMS Vectoring feature and Graphics package.

Prerequisite System Administration

You must first define your acceptable service level and service level increments for this VDN in the VDN Call Profile Setup window. See Chapter 8, "ACD Administration — VDN Call Profile Setup," for more information.

Input Window

You must complete the report input window (Figure 4-19) to run the report. See Table 4-11 for descriptions of the fields on the report input window.

03/20/95 2:45 PM CentreVu(TM) CMS Windows: 1 of 1 ^

Rpts: Hist: Graph: VDN Service Level: Interval Input acd1

VDN: _____

Date: _____

Times: _____

Second Service Level Percentage Threshold: _____

First Service Level Percentage Threshold: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Run

Figure 4-19: VDN Service Level Graph Report Input Window

Input Fields

Table 4-11 includes definitions for and directions on completing all fields on the VDN Service Level graph report input window. See Figure 4-19 for an example of the input window.

Table 4-11: VDN Service Level Graph Report Input Fields

Field	Definition
VDN :	Enter the name or number of the VDN that you want to view in this graph.
Date :	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 No records found displays in the status line. The month start date must be the first day of the month.
Times: (interval)	Enter the time you would like the report to cover. - You can use AM/PM format (for example, 7:30AM-5:00PM). - You can use military time format (for example, 7:30-17:00).

Table 4-11: VDN Service Level Graph Report Input Fields (Contd)

Field	Definition
Second Service Level Percentage Threshold:	Enter the service level percentage below which you want the graph to change from the Normal condition to the Caution condition. This threshold is actually the Caution condition level. • This number must be greater than the number entered in the First Service Level Percentage Threshold. • Because the bars in this report work in reverse, the Caution condition bar(s) are lower than the Normal condition bar(s). Any percentage that meets or falls below the value entered in this field indicates a Caution condition.
First Service Level Percentage Threshold:	Enter the service level percentage below which you want the graph to change from the Caution condition to the Warning condition. This threshold is actually the Warning condition level. • This number must be less than the number entered in the Second Service Level Percentage Threshold field. • Because the bars in this report work in reverse, the Warning condition bar(s) are lower than the Caution condition bar(s). Any percentage that meets or falls below the value enter in this field indicates a Warning condition.
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. 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.

Call Work Code Report

Use the **Call Work Code** report to track certain call activities of your call center like special sale items, complaints, how many times a customer made a purchase based on a special sales campaign, etc. Agents enter a specific call work code that is associated with a particular call activity.

To get data in this report, you must have purchased the Call Work Codes feature on the *DEFINITY*® Generic 2.2 switch or the *DEFINITY* Generic 3 switch.

The Call Work Code report is available in daily, weekly, and monthly versions.

If you need to know what the Call Work Code report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Prerequisite System Administration

- Because call work codes directly affect the amount of storage space required for each file system and the disk space, you must allocate the number of call work codes to be saved by *CentreVu* CMS in the System Setup—Data Storage Allocation window. See Chapter 10, “System Setup,” for more information.
- You must identify and specify where you want to store call work code data in the System Setup—Free Space Allocation window. See Chapter 10, “System Setup,” for more information.
- You must assign the call work codes for which *CentreVu* CMS collects data in the Call Work Codes window. See Chapter 8, “ACD Administration,” for more information.

Input Window

You must complete the report window (Figure 4-20) to run the report. See Table 4-12 for descriptions of the fields on this input window.

The screenshot shows a software window titled "03/20/95 11:30 PM CentreVu(TM) CMS Windows: 1 of 1". Inside the window, there is a menu bar with "Rpts: Hist: Call Work Code: Daily Input" and a user identifier "acd1". Below the menu bar is a form with the following fields and options:

- "Call Work Code(s):" followed by a text input field and a "Run" button.
- "Date:" followed by a text input field.
- "Report destination (Select one):" with three radio button options:
 - "<x> Terminal"
 - "< > Printer, Printer name" followed by a text input field.
 - "< > File," followed by a "File name:" label and a text input field.

Figure 4-20: Call Work Code Report Input Window

Input Fields

Table 4-12 includes definitions for and directions on completing all fields on the historical Call Work Code report input window. See Figure 4-20 for an example of the input window.

Table 4-12: Call Work Code Report Input Fields

Field	Definition
Call work code(s):	Enter the call work code name(s) or number(s).
Date: (daily, weekly, monthly)	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 No records found displays in the status line. The month start date must be the first day of the month.

Table 4-12: Call Work Code Report Input Fields (Contd)

Field	Definition
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. 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.

VDN Reports

Note If you have not purchased the *CentreVu* CMS Vectoring feature, none of the VDN menu items appear on your terminal.

The VDN Reports (Figure 4-21) give you the following specific information about VDNs and vectors:

- A summary of incoming ACD call-handling performance for a specified VDN
- Specific call data for a single VDN
- The numbers of calls answered by a measured agent or calls connected to a non-ACD destination (like an attendant) and the abandoned calls that were processed by a VDN in a selected time period
- For the busiest hour in a selected day, call-handling data for selected VDNs
- Call-handling data for several VDNs and ACDs.

If you need to know what the VDN reports look like or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

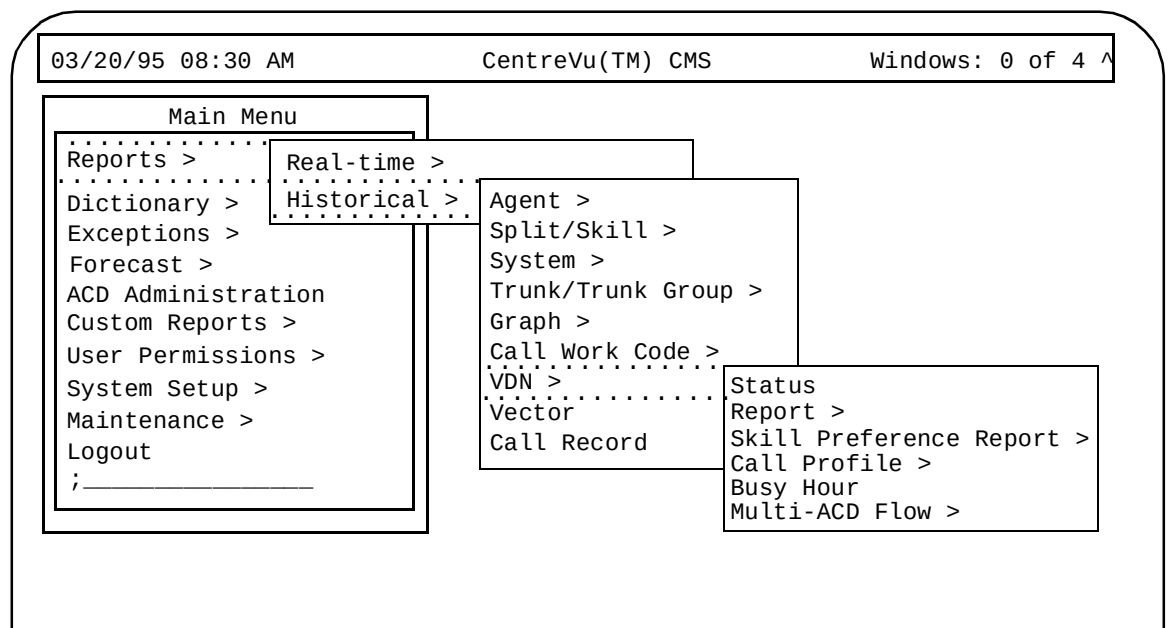


Figure 4-21: VDN Reports Menu

VDN Status Report

The **VDN Status** report shows, for the specified VDN and date, a summary of incoming ACD call-handling performance. The information includes the percentage of calls answered/connected within your set service level, the total number of calls connected to a non-ACD destination, the total number of abandoned calls, the average speed of answer, and the average time to abandon for the VDN.

The VDN Status report uses intrahour interval data that is summed up to the last interval in the day. If you run the report on your terminal for the current day, the report shows a daily total up to the last intrahour interval. If you leave the report on your terminal, *CentreVu* CMS updates the data in the report automatically as each new intrahour interval is archived.

- You cannot customize this report.

VDN Report

The **VDN** report gives you historical information for a specified VDN and time frame. It displays, for a single VDN, various types of data that show how calls to the specified VDN were handled.

The following types of calls are not considered in the VDN Call Profile report:

- Calls receiving a forced busy
- Calls receiving a forced disconnect
- Calls that outflow (for example, route to another VDN).

This report is available in interval, daily, weekly, and monthly formats.

Prerequisite System Administration

- You must first define your acceptable service level and service level increments for this VDN in the VDN Call Profile Setup window (see Chapter 8, “ACD Administration—VDN Call Profile Setup”). If you do not define your service level and increments, zero (0) is used for all increments, and all calls appear in the first increment).

VDN Skill Preference Report

The **VDN Skill Preference** report shows the number of calls answered, average talk time, and average after call time for calls to the VDN by skill preference for which they were answered. The report lists information for the first, second, and third VDN skill preferences.

If the VDN skill preferences are referred to explicitly in the vector (for example, “queue to main skill xx” instead of “queue to main skill 1st”), the calls answered for that skill are included in this report.

The report is available in interval, daily, weekly, or monthly versions.

VDN Call Profile

The **VDN Call Profile** report displays, in segments of progressively longer wait time, the numbers of answered/connected and abandoned calls that are processed by the VDN in the selected time period. These wait time segments, or service level increments, are defined in the VDN Call Profile Setup window in the ACD Administration subsystem.

The VDN Call Profile report also displays the acceptable service level administered for the VDN and the percentage of calls that have been answered/connected within that service level.

The VDN Call Profile report displays in daily, weekly, or monthly formats.

Busy Hour by VDN Report

The **Busy Hour by VDN** report shows call-handling data for the busiest hour in the selected day for each selected VDN.

The busiest hour is the set of contiguous intervals, totaling an hour, that had the highest number of incoming calls for the VDN. For example, if your system stores data in 15 minute intervals, the busiest hour might be the four intervals from 10:15 AM to 11:15 AM or the four intervals from 4:30 PM to 5:30 PM.

This report is only available in the daily form and cannot be customized.

Input Window

The following examples show what typical input windows look like for historical VDN reports.

Historical VDN reports all have similar input windows, with the exception of the Multi-ACD Call Flow report.

Figure 4-22 is an example of the input window you will see when you are requesting a historical VDN report. You only see the **Times:** field when requesting an interval report. The input window for the Multi-ACD Call Flow report and its input field definitions are shown with that report's description.

The screenshot shows a window titled "03/20/95 3:00 PM CentreVu(TM) CMS Windows: 1 of 1 ^". Inside the window, the title bar reads "Rpts: Hist: VDN: Report: Interval Input" and "acd1" is in the top right corner. The main area contains the following fields and options:

- VDN: _____
- Date: _____
- Times: _____
- Report destination (Select one):
 - <x> Terminal
 - < > Printer, Printer name _____
 - < > File,
 - File name: _____

A "Run" button is located to the right of the input fields.

Figure 4-22: VDN Reports Input Window

Input Fields

Table 4-13 includes definitions for and directions on completing all fields on historical VDN report input windows.

Table 4-13: VDN Reports Input Fields

Field	Definition
VDN :	Enter the name or number of the VDN you want to include in the report.
Date:	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.
Times: (interval)	Enter the time you would like the report to cover. - You can use AM/PM format (for example, 7:30AM-5:00PM). - You can use military time format (for example, 7:30-17:00).

Table 4-13: VDN Reports Input Fields (Contd)

Field	Definition
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. 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.

Multi-ACD Call Flow by VDN Report

The **Multi-ACD Call Flow by VDN** report shows call-handling data for the VDNs and the ACDs you select.

You must have the Look Ahead Interflow feature active on your ACD to get information about Look Ahead Attempts and Look Ahead Completions. You must have a Generic 3 to get adjunct routing data. Adjunct routing accomplished on a Generic 2 using a “route to” step and an ASAI Gateway is reported as VDN Flow Interflow data only, not as adjunct routing.

You cannot customize this report.

This report is available in daily, weekly, and monthly formats.

Input Window

An example of the Daily Multi-ACD Call Flow by VDN report input window is shown in Figure 4-23. Table 4-14 defines the input window fields for you.

03/20/95 3:00 PM CentreVu(TM) CMS Windows: 1 of 4 ^

Rpts: Hist: System: Multi-ACD Flow: Daily Input acd1

Date: _____ Run

ACD: _____

VDNs: _____

ACD: _____

VDNs: _____

ACD: _____

VDNs: _____

ACD: _____

VDNs: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 4-23: Multi-ACD Call Flow by VDN Report Input Window

Input Fields

Table 4-14 includes definitions for and directions on completing all fields on historical VDN report input windows.

Table 4-14: Multi-ACD Call Flow by VDN Input Window

Field	Definition
Date :	Enter the date for the day or the start date for the week or the month you would like the report to cover. • You can use the month/day/year (for example, 3/21/95). • You can use a “-” offset based on today's date (for example, -1 for yesterday). • For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 <code>No records found</code> displays in the status line. The month start date must be the first day of the month.
ACD :	Enter the ACD name or number that corresponds to the following VDN(s) field.
VDNs :	Enter the names or numbers of the VDNs you want to include in the report.

Table 4-14: Multi-ACD Call Flow by VDN Input Window (Contd)

Field	Definition
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. 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.

Vector Report

Note

If you have not purchased the *CentreVu* CMS Vectoring feature, this menu item does not appear.

The **Vector** report displays, for a single vector, various types of data that show how calls were handled by the vector.

With a Generic 2 or System 85 switch, if calls connect to a destination via a "route to" step to the ASAI Gateway, they are recorded under **Vector Flow Out**. Those calls are **not** included as abandons or answered calls in the vector reports because the calls are neither answered nor abandoned while connected to the vector.

This report is available in interval, daily, weekly, and monthly formats.

If you need to know what the VDN report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Input Window

You must complete the report input window (Figure 4-24) to run the report. See Table 4-15 for descriptions of the fields on historical Vector report input window.

03/20/95 3:30 PMCentreVu(TM) CMSWindows: 1 of 1

Rpts: Hist: Vector: Interval Inputacd1

Vector: _____Run

Date: _____

Times: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 4-24: Vector (Interval) Report Input Window

Input Fields

Table 4-15 includes definitions for and directions on completing all fields on the historical Vector report input window. See Figure 4-24 for an example of the input window.

Table 4-15: Vector Report Input Fields

Field	Definition
Vector:	Enter the name or number of the vector you want to include in the report.
Date: (interval)	Enter the date you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday).
Dates: (daily, weekly, monthly)	Enter the date for the day or the start date for the week or the month you would like the report to cover. - You can use the month/day/year (for example, 3/21/95). - You can use a "-" offset based on today's date (for example, -1 for yesterday). - For daily, weekly, and monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/95;3/23/95;3/25/95), and you can enter ranges by placing a hyphen between entries (for example, 3/21/95-3/25/95). For weekly and monthly reports, specifying a range produces all weeks and/or months that begin in the range. When you specify a date for a weekly report, that date or range of dates 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 No records found displays in the status line. The month start date must be the first day of the month.

Table 4-15: Vector Report Input Fields (Contd)

Field	Definition
Times: (interval)	Enter the time you would like the report to cover. • You can use AM/PM format (for example, 7:30AM-5:00PM). • You can use military time format (for example, 7:30-17:00).
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. 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.

Call Record

The Call Record report allows you to view selected information about each call. For example, you might have a caller that complained about being put on hold three times and then transferred. This report gives you this type of information about a call.

This report gives you information on specific calls. It is based only on the start/stop dates and times you enter.

If you need to know what the Call Record report looks like, or need report row and column definitions, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

Relationships to Other Subsystems

Custom Reports

See the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document for creating and using custom reports.

System Setup

You must allocate space to store call records in order to collect call record data. See Chapter 10, “System Setup—Free Space Allocation,” for more information.

Input Window

You must complete the report input window (Figure 4-25) to run the report. See Table 4-16 for descriptions of the fields on historical Call Record report input window.

03/20/95 3:30 PM CentreVu(TM) CMS Windows: 1 of 1 ^

Rpts: Hist: Call Record Input acd1

Start date: _____
Start time: _____

Stop date: _____
Stop time: _____

Report destination (Select one):
<x> Terminal
< > Printer, Printer name _____
< > File,
File name: _____

Run

Figure 4-25: Call Record Report Input Window

Input Fields

Table 4-16 includes definitions for and directions on completing all fields on the historical Call Record report input window. See Figure 4-25 for an example of the input window.

Table 4-16: Call Record Report Input Fields

Field	Definition
Start date:	Enter the start date for which you want the report to run. • The report runs for all calls answered by the split/skill from the Start date and Start time through the Stop date and Stop time.
Start time:	Enter the start time for which the report is to be run. Enter the time you would like the report to cover. • You can use AM/PM format (for example, 7:30AM-5:00PM). • You can use military time format (for example, 7:30-17:00).
Stop date:	Enter the date through which you want the report to run. • The report will be run for all calls answered by the split/skill from the Start date and Start time through the Stop date and Stop time.
Stop time:	Enter the stop time for which the report is to be run. Enter the time you would like the report to cover. • You can use AM/PM format (for example, 7:30AM-5:00PM). • You can use military time format (for example, 7:30-17:00).

Table 4-16: Call Record Report Input Fields (Contd)

Field	Definition
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. 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.

General Information

Audience

Chapter 5 is written for the *CentreVu™* Call Management System (*CentreVu CMS*) administrator and all users with Timetable access.

Introduction

This chapter describes how to create and edit timetables and shortcuts. Timetable and Shortcut are items on the **Keep** SLK menu (see Figure 5-1).

A **timetable** is a set of up to 100 tasks that you define and schedule for completion at a time that is convenient and nondisruptive for your call center's operation. You define a **task** by accessing a user window, entering the appropriate values, and selecting an item from the action list. A task could, for example, access and complete a historical report input window, and then run the report. Historical reports can be scheduled to run at the date(s) and time(s) you specify.

A **shortcut** is similar to a timetable except that the task you define executes immediately when you run the shortcut. A shortcut is a fast, easy way, for example, to set up and run the real-time reports that you use frequently.

When you create or edit a timetable or shortcut, you enter the **Keep** mode. While in Keep mode, you can edit and save timetable and shortcut tasks. You return to the Normal mode when you leave the Keep mode.

Keep SLK Menu



Figure 5-1: Keep SLK Menu

Keep Menu-Item Descriptions

Timetable

Takes you to the user window where you create, modify, view, or delete timetables. See the Timetable section later in this chapter.

Shortcut

Takes you to the user window where you create, modify, view, or delete shortcuts. See the Shortcuts section later in this chapter.

Stop

Takes you out of the add or edit mode for a timetable or shortcut at which time an Acknowledgment displays asking you if you want the additions or changes saved.

Note

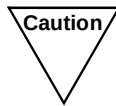
Stop does **not** stop the execution of a timetable or shortcut. For example, you enter a shortcut name and press **Return**. Then you decide you really do not want to run that shortcut and try stopping it by selecting **Stop**. **Stop** does not stop your shortcut from running after you have initially started it. The same is also true for a timetable.

Timetable

Timetable lets you schedule one or more tasks, such as printing a historical report, for completion at a time that is convenient and nondisruptive to your call center's operation.

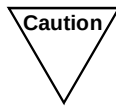
Things to Know Before You Start

- 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).
- An incremental backup and data summaries are already scheduled on a timetable to run at 1:30 a.m. when you receive your system. You can, however, access and change this timetable.



Use care in changing this timetable because you may affect system performance.

- Timetables that fail to run are logged in the customer error log. The **List all** action item on the Timetable window also displays the status of a timetable.
- Each timetable can have up to 100 tasks (entries).
- You can schedule only five timetables for the same start time (minute).



If the *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 extremely slowly until all timetables finish running.

- You cannot put real-time reports, the Vector Contents window, or custom report creation on a timetable.

Also, you cannot place a timetable on another timetable.

* UNIX is a registered trademark of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

- You cannot change the ACD associated with a timetable task. It is possible to have tasks associated with different ACDs on the same timetable.

Note

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.

To change the current ACD, use the **Commands** SLK. See Chapter 2, “User Basics,” for the procedures on changing your current ACD.

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 also has no effect on tasks created under different ACDs.

If you want to run identical tasks on more than one ACD, you must design separate timetables for each ACD.

- When you select Timetable, you are automatically placed in the Keep mode when an Add, Get contents: add tasks, or Get Contents: Modify action list selection is made. This means that you cannot access windows that existed before you entered the Keep mode. The pre-Keep windows reappear in their same location after you exit the Keep mode.
- 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 (such as an Acknowledge window that requires a yes or no response) occurs, the timetable is stopped.
- Tasks in a timetable for which you do not have permission will not run.

Note

To verify the status of a timetable, check the List All window for the timetable and 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 multiple times 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 printout is sent automatically to your default printer. If your default printer is changed, *CentreVu* CMS sends your timetables to your new default printer automatically. 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, then your timetable task will not execute. You have to remove that printer destination, and then 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 9, “User Permissions—User Data.”
- To create, modify, or delete timetables, you need **write** permission for Timetable. See Chapter 9, “User Permissions—Feature Access.”
- To view timetables, you need **read** permission for Timetable. See Chapter 9, “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.

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, all timetable tasks that user has scheduled for Skill 3 do not run (or display no data for Skill 3).

Reports

Timetable is especially useful for scheduling the printing of historical reports.

Input Window

From this window (Figure 5-2), you add, copy, modify, delete, and view timetables. The action list item `Get contents` also allows you to add, modify, delete, and view the tasks for a timetable.

03/20/95 08:30

CentreVu(TM) CMS

Windows: 1 of 10

Timetable

Timetable name: _____

Description: _____

User ID: _____

Start time: _____

Start date: _____

Frequency and attributes (Select only one):

<x> Once

< > Dates: _____

< > Hourly, Stop time: _____

< > Daily

Hourly/Daily, Days (Select any you wish):

[x] Sunday

[x] Thursday

[x] Monday

[x] Friday

[x] Tuesday

[x] Saturday

[x] Wednesday

Add

Copy

Delete

Find one

Get contents

List all

Modify

Next

Previous

Figure 5-2: Timetable Input Window

5-6 CentreVu CMS R3V4 Administration

Error Messages

Failed

If you are creating or editing a timetable and receive this message, do a `Get contents` and make sure your timetable was saved. If it was, reschedule the timetable.

Input Fields

Table 5-1 includes definitions for and directions on completing all fields on the Timetable input window. See Figure 5-2 for an example of the input window.

Table 5-1: Timetable Input Fields

Field	Definition
Timetable name: (Required for <code>Add</code>)	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 change the timetable's name. If you retrieve an existing timetable, change the name, and select <code>Modify</code> from the action list, then the status line reads <code>Does not exist</code> .
Description: (Optional field)	Enter a description of the timetable. The description may be up to 50 characters.
User ID: (Required for <code>Add</code>)	Enter your <i>CentreVu</i> CMS user ID.
Start time: (Required to schedule)	Enter the time you want the timetable to start running. - You can use AM/PM format (for example, 2:30AM). If AM or PM is not specified, then military time (24-hour clock) is assumed. - You can also enter a time as "hh" or "hhAM" (for example, 2AM) or "hh:mm" or "hh:mmAM" (for example, 2:30AM). If you specify <code>today</code> as the <code>Start date</code>, you must specify a start time that is later than the current time, otherwise; the timetable is not scheduled.

Table 5-1: Timetable Input Fields (Contd)

Field	Definition
Start date: (Required to schedule)	Enter the date (for example, 4/7/95) you want the timetable to start running. - You can use the month/day/year format (4/7/95). - You can also use a “+” offset based on today’s day or -0 for today. You get an error message if you enter an invalid date like 2/30 (February 30). Also, if you enter a start date that is in the past, the timetable is not scheduled.
Frequency and attributes (Select only one): (Required for Add)	< > Once The timetable runs only one time at the date and time you specified. Dates: Enter the date(s) you want the timetable to run. <i>For monthly timetables</i>, enter the specific day each month you want this timetable to run (for example, 1/1/95, 2/1/95, 3/1/95, 4/1/95 in each individual row and field). <i>For quarterly timetables</i>, enter the specific day every 3 months you want this timetable to run (for example, 1/1/95, 4/1/95, 7/1/95, 10/1/95 in each individual row and field). < > 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.

Table 5-1: Timetable Input Fields (Contd)

Field	Definition
Hourly/Daily, Days (Select any you wish):	Enter an x next to the day(s) of the week you want the timetable to run. The default for daily is every day of the week. <i>For weekly timetables</i>, enter an x next to the one day you want the timetable to run each week.

Creating and Scheduling a Timetable

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 save changes Acknowledgment.

1. Select **Timetable** from the **Keep** SLK menu. → *The Starting Timetable Acknowledgment displays.*
The Timetable Input window displays. (All other windows are temporarily closed.)
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.
5. Enter the time you want your timetable to start running in the **Start time** field. Enter the time in either “hh” or “hh:mm” format. If AM or PM is not specified, a 24-hour format is assumed.

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

Go to the next field.

6. Enter the date 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, Stop time, enter the time you want the timetable to stop running.*
 - *If you select Dates, enter the specific dates you want the timetable to run.*
 - *If you select Daily, for daily reports, enter **x** next to the days of the week you want the timetable to run. For weekly reports, enter only one day.*
8. Press **Return** to move the cursor to the action list. Then select Add, and press **Return** again to add the timetable to CentreVu CMS.
 - *Working appears on the status line.*
 - If the timetable name already exists, Already exists appears on the status line and you have to enter a different timetable name.*
 - If all entries are valid, Successful appears on the status line and the Main Menu displays.*
9. From the Main Menu, go to the user window for which you want to schedule one or more tasks.
 - *The status line on the Main Menu shows Keeping Entries.*

10. Complete the required field entries on the user 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 user window.*
11. Repeat the user window entries and the action list selection (Step 10) for each task.

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

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

12. When you have finished adding tasks to this timetable, press the **Keep** SLK and select Stop. → *An Acknowledgment displays.*
13. To save your timetable, enter **y**, and press **Return**. → *Your tasks are now scheduled on a timetable.*
All user windows are closed, and you are returned to the Timetable window.
14. Press the **Exit** SLK to close the Timetable window and return to your previously opened window. → *Your previous normal open user windows display.*

Creating and Not Scheduling a Timetable

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 save changes Acknowledgment.

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. Enter a unique name in the **Timetable name** field. Go to the next field.
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.
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.
 - *If you select **Once**, the timetable runs one time.*
 - *If you select **Hourly**, Stop time, enter the time you want the report to stop running.*
 - *If you select **Dates**, enter quarterly or monthly dates.*
 - *If you select **Daily**, Days, for daily reports, enter **x** next to the days of the week you want the timetable to run. For weekly reports, enter only one day.*

7. Press **Return** to move the cursor to the action list. Then select Add, and press **Return** again to add the timetable to CentreVu CMS. → Working displays on the status line. If all entries are valid, Successful displays on the status line, and then the Main Menu displays.

If the timetable name already exists, Already exists displays on the status line and you must enter a different timetable name.
8. From the Main Menu, go to the user window for which you want to schedule one or more tasks. → The status line on the Main Menu shows Keeping Entries.
9. Complete the required field entries on the user 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 user window.
10. Repeat the user window entries and the action list selection (Step 9) for each task.
11. When you have finished adding tasks to this timetable, press the **Keep** SLK, and select Stop. An Acknowledgment displays.
12. To save your timetable, enter **y**, and press **Return**. → Your tasks can now be scheduled at your convenience.

All user windows are closed, and you are returned to the Timetable window.
13. Press the **Exit** SLK to close the Timetable window and return to your previously opened window.

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.

Editing an Existing Timetable

The Get contents action for Timetable allows you to do the following to an existing timetable:

- Add tasks
- Copy tasks
- Delete tasks
- Globally edit tasks
- Modify tasks.

Figure 5-3 shows an example of the Get Contents input window.

01/30/95 08:30 AM

CentreVu(TM) CMS

Window: 1 of 10

Timetable: Get Contents

Task number(s): _____

Add tasks

Timetable: Miscellaneous

Number of tasks; 32

Copy

Task Action Window title Value

Delete

1 Run Rpts: Hist: Agent: Attendance: Daily Input Smith

Global edit

2 Run Rpts: Hist: Agent: Attendance: Daily Input Jonat

Modify

3 Run Rpts: Hist: Split: Summary: Interval Input Sally

4 Run Rpts: Hist VDN: Report: Daily Input 55545

5 Add User Permissions: User Data shk sarah

6 List all User Permissions: User Date

7 Run Rpts: Hist: System: Multi-ACD: Weekly Input Custom -7

Figure 5-3: Timetable Get Contents Window

Input Fields

Table 5-2 includes definitions for and directions on completing all fields on the Timetable Get Contents input window. See Figure 5-3 for an example of the input window.

Table 5-2: Timetable Get Contents Input Fields

Field	Definition
Task number(s) :	Enter the numbers corresponding to the tasks you want to copy, delete, or modify or the number of the task after which you want to add new tasks. You can enter a list or range for all actions except Add tasks.
Task	Display-only column that lists the number corresponding to the task's position 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.
Values	Display-only column that lists the input data associated with the task.

Adding Tasks to an Existing Timetable

The Add tasks action returns you to the Main Menu and allows you to add tasks to a timetable in the same manner in which you add tasks when you first create a timetable.



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 with zero (0) tasks, leave the Task number(s) field blank.

When you are finished adding tasks to the timetable, select Stop from the **Keep** SLK menu. An Acknowledgment window displays asking whether the changes should be saved. After you have answered the questions, you are returned to the Get Contents window. The new tasks you added are displayed in this window following the task you specified. Subsequent tasks are renumbered.

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 save changes Acknowledgment.

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 highlight **Get contents** on the action list. Press the **Return** key again. → *The Timetable: Get Contents window displays. You are now in the Keep mode.*

The timetable must already exist, and only the owner of the timetable or a CentreVu CMS administrator can edit it.
4. In the **Task number(s)** field, enter the number of the task that you want new tasks to follow. Press the **Return** key. → *If you want to add a task to the beginning of the 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 with zero (0) tasks, leave the Task number(s) field blank.
5. Select the **Add tasks** action, and press the **Return** key. → *The Main Menu 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. From the Main Menu, go to the task (using the normal menu selection rules) that you want to schedule. → *The status line on the Main Menu shows **Keeping Entries**.*

7. Complete the required field entries on the user 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 user window.*
8. Repeat the above steps to add as many tasks as you need.
9. When you are done adding tasks, press the **Keep** SLK, and select Stop. → *An Acknowledgment asks if you want to save your changes.*
10. Enter **Y** to save the new tasks.
11. Press the **Return** key. → *The Timetable: Get Contents window displays with the entries you chose in the preceding menu navigation.*
12. Press the **Exit** key. → *The Get Contents window is closed, and the Timetable window displays.*

Copying Tasks for an Existing Timetable

The **Copy** action makes a copy of each task you entered in the input field. After you select this action, a secondary window displays (Figure 5-4) to allow you to specify whether the copies are to be placed after a specified task in the timetable or whether each copy should display directly following the task for which it is a copy. The default is to place the copies after the last task in the timetable.

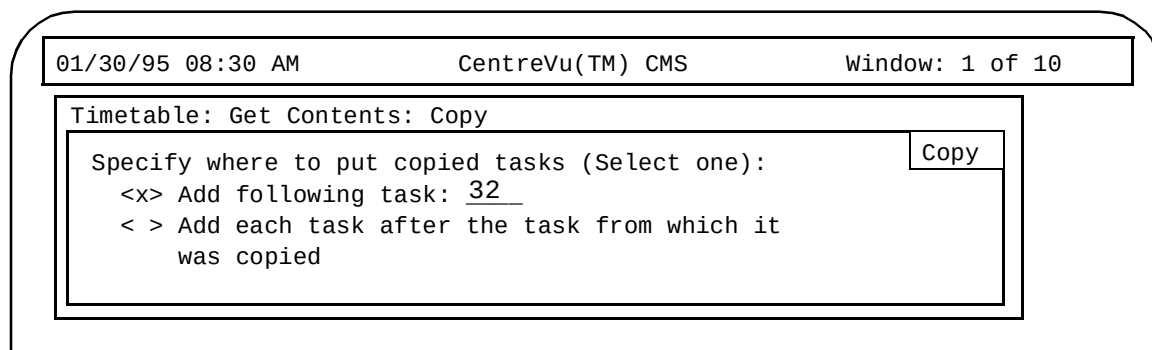


Figure 5-4: Timetable Get Contents Copy Action Window

After you have entered your choice and selected the **Copy** action, the copies are made. If the copy succeeded, the status line displays **Successful** and the cursor returns to the input field of the **Get Contents** window. If the copy *did not* succeed, **Failed** is displayed on the status line and an **Acknowledgment** window explains the reason for the failure.

If you try to copy so many tasks that you exceed the 100-task limit for timetables, the **Copy** action fails, none of the tasks are copied, the status line displays **Failed**, and an error **Acknowledgment** informs you that you cannot copy so many tasks to the timetable.

Note

You cannot specify the same task more than once when using the **Copy** action on the **Timetable: Get Contents** window. If you do so, or specify overlapping ranges, an error message displays.

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 tasks in the **Timetable name** field.

3. Press the **Return** key, and then highlight Get Contents on the action list. Press the **Return** key again. → *The Timetable: Get Contents window displays. You are now in the Keep mode.*
The timetable must already exist, and only the owner of the timetable can edit it (unless the user is an administrator).
 4. In the Task number(s) field, enter the numbers of the tasks you want to copy. Press the **Return** key.
 5. Select Copy from the action list and press **Return**. → *The Timetable: Get Contents: Copy window displays.*
 6. Enter an **x** by the Add following task field or the Add each task after the task for which it was copied field.
- Note

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

Choosing the Add each task after the task for which it was copied causes each copy to display directly following the task for which it is a copy.
7. Press the **Return** key to move the cursor to the action list. Copy is highlighted. Press **Return** again.
 8. Press the **Return** key. → *Successful appears on the status line.*
The Timetable: Get Contents window displays.
 9. Press the **Exit** key. → *The Timetable window displays.*

Deleting Tasks from an Existing Timetable

The **Delete** action deletes the specified task(s) from the timetable.

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

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. In the **Timetable** name field, enter the name of the Timetable from which you want to delete a task.
3. Press the **Return** key, and then highlight **Get contents** on the action list. Press the **Return** key again. → *The Timetable: Get Contents window displays.*
You are now in the Keep mode.
The timetable must already exist, and only the owner of the timetable can edit it (unless the user is an administrator).
4. In the **Task number(s)** field, enter the numbers of the tasks you want to delete. Press the **Return** key. → *Tasks are displayed in the order they were created.*
5. Select **Delete** from the action list, and press **Return**. *Successful* appears on the status line.
The tasks are deleted from the Get Contents window, and the remaining tasks are renumbered.
6. Press the **Exit** SLK. → *The Timetable window displays.*

Global Editing of a Timetable

The `Global edit` action replaces all occurrences of a given input value in the selected tasks with a new value. For example, you may want to run all the reports in a given timetable for 3 days ago instead of for yesterday. This action allows you to substitute the value “-3” for the value “-1” on *all* of these reports with a single action.

Note It is advisable in such situations to make a copy of the original timetable and then to edit the *copy*, thus preserving the original timetable to run normally.

When you choose the `Global edit` action, the secondary window shown in Figure 5-5 displays. It allows you to select the type of field to replace values for and to specify the new value.

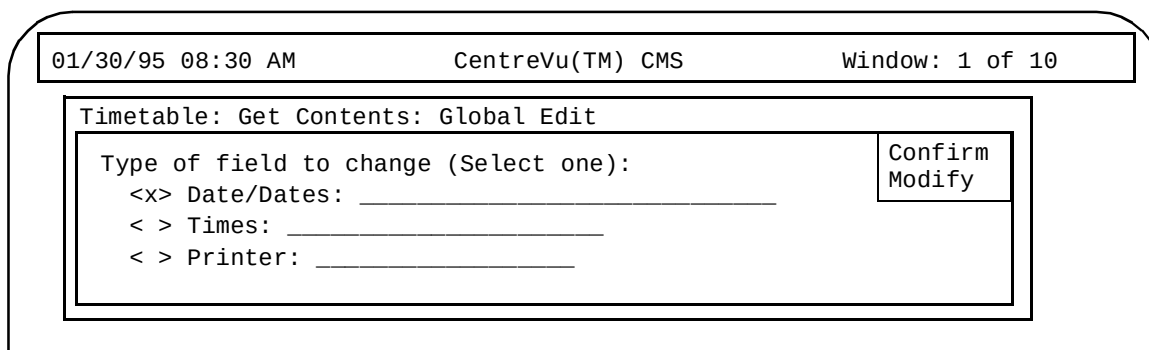


Figure 5-5: Timetable Get Contents Global Edit Window

Field/Action List Usage

Confirm

If you choose the `Confirm` action from the `Get Contents: Global Edit` window, another secondary window displays, as shown in Figure 5-6. This window lists the tasks that you selected to be changed that have input fields of the type you selected. The values for the input fields for the tasks display, with the new value you specified to be substituted for the original value in the field of the type you selected. Tasks that do not contain input fields of the type you selected do not appear in the `Confirm` window display.

After you have looked at the `Confirm` window, you can go ahead with the changes by returning to the `Global Edit` window (using the `Exit` or the `Current` SLK) and selecting `Modify`, or not make the changes, by returning to the `Global Edit` window (using the `Exit` or the `Current` SLK) and selecting the `Exit` SLK.

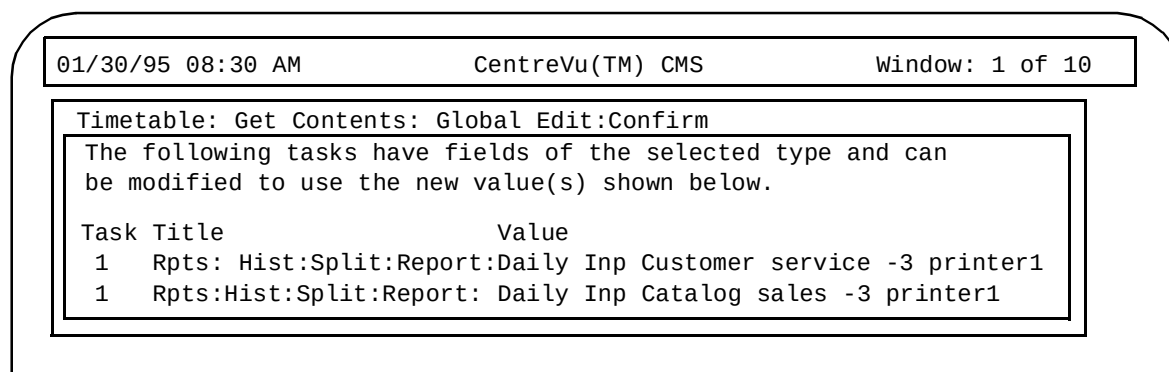


Figure 5-6: Timetable Get Contents Global Edit Confirm Window

Modify (Global Edit Window)

If you choose the **Modify** action 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 value(s) in the field(s) is replaced by the new value(s) you entered. If the changes are made successfully, the status line displays **Successful**. If the changes cannot be made successfully, the status line displays **Failed**, and an Acknowledgment window gives the reason for the failure.

Note

If none of the tasks had an input field of the type you selected for change, the status line displays **Successful**, but no tasks have been modified.

When you return to the Get Contents window after invoking a successful Global Edit, the changed values are reflected in the **Values** list for each modified task.

Field Descriptions

Type of field to change (Select one):

Enter an **x** in the field corresponding to the type of input field value you wish to change. Enter the new value, list, or range of values to replace the value(s) currently in the fields of the selected type.

Any error detected in the input is reported to you in an error message window, and you need to correct it before selecting an action.

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. In the **Timetable** name field, enter the name of the Timetable that you want to edit.

3. Press the **Return** key, and then highlight Get contents on the action list. Press the **Return** key again. → *The Timetable: Get Contents window displays. You are now in the Keep mode.*

The timetable must already exist, and only the owner of the timetable can edit it (unless the user is an administrator).
4. In the Task number(s) field, enter the numbers of the tasks you want to edit, and press the **Return** key.
5. Select the Global edit action, and press the **Return** key. → *The Timetable: Get Contents: Global edit window displays.*
6. Enter an **x** by the type of field you wish to change.
7. Enter the **new value(s)** for the field type selected.
8. Press the **Return** key.
9. Select Confirm from the action list, and review the changes. → *The changes to the tasks are listed out.*
10. Press the **Exit** key to return to the Global Edit window. If changes need to be made to the new values, repeat Steps 7 - 9.
11. When the new values are correct, press the **Return** key.
12. Select Modify from the action list → *The status line displays Working and Successful messages, and then returns you to the Get Contents window.*
13. Press the **Exit** SLK.

Modifying Tasks Within an Existing Timetable

The **Modify** action chosen from the Get Contents window displays the window associated with each of the tasks you entered in the input field. Each window displays with the data currently entered for that task. The windows are brought up one after the other, in the order of the task numbers. Each task has **Task x of N** displayed in its status line to let you know which of the tasks it is. You can change the data for the task, the action for the task, or both. You must select an action in order to complete the modification. The default action for the task is the one currently associated with the task. In this way, you can press **Return** twice to complete the modification of task data without changing the action for the task. Once you have selected an action, the window disappears and the window for the next task to be edited displays. When there are no more tasks to modify, you are returned to the Get Contents window. Tasks are ordered as you specify.

Note

If you press **Exit** without having selected an action, a Return Acknowledgment displays, informing you that the modification for this task is cancelled (that is, none of the input data has been changed for this task). Press **Return** to continue.

When you press **Return** you are shown the window for the next task to be modified or, if there are no more tasks to be modified, you are returned to the Get Contents window. The cursor is returned to the input field in the position it was in when you pressed **Return** to move to the action list. The Current and MainMenu SLKs are blocked while you are modifying tasks. The terminal beeps if you select them. The only valid choice on the Keep SLK menu is the **Stop** selection. It may be used to terminate the modifications before you have modified all the tasks you selected and returns you to the Get Contents window. The Window SLK is not blocked, although only the Redraw screen option is available.

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 save changes Acknowledgment.

1. Select **Timetable** from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. In the **Timetable** name field, enter the name of the Timetable whose tasks you want to modify.
3. Press the **Return** key, and then highlight **Get contents** on the action list. Press the **Return** key again. → *The Timetable: Get Contents window displays. You are now in the Keep mode.*

The timetable must already exist, and only the owner of the timetable can edit it (unless the user is an administrator).
4. In the **Task number(s)** field, enter the numbers of the tasks you want to modify. Press the **Return** key.
5. Select the **Modify** action. → *The task window for the first task you have selected displays.*
6. Make changes to the task.
7. Press the **Return** key, select the appropriate action, and press the **Return** key again. → *The next task to be modified displays.*
8. Repeat the above steps until all selected tasks are modified. → *After the last task has been modified, a prompt asks you if you want to save your changes.*
9. Enter **Y** to save the modifications.
10. Press the **Return** key. → *The Get Contents window displays.*

Copying an Existing Timetable

Note

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

When you copy a timetable, the schedule information is copied as well as the timetable tasks.

1. Select Timetable from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. In the Timetable name field, enter the name of the new Timetable to which you want to copy the existing timetable.
3. Enter your user ID in the User ID field.
4. Press **Return**, then highlight Copy on the action list, and press **Return** again. → *The Timetable: Copy window displays.*
5. Enter the name of the existing timetable 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. Press **Return**, then highlight Copy on the action list, and press **Return** again to copy the timetable. → *If the timetables copies, Successful appears on the status line.*

Note

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

8. Press **Exit** to close the Timetable window and return to your previously opened window. → *Your previous normal user window(s) display.*

Deleting an Existing Timetable

1. Select Timetable from the **Keep** SLK menu. → *The Timetable Input window displays.*
2. Enter the name of the timetable you want to delete in the Timetable name field.
3. Press **Return**, and then highlight Delete on the action list, and press **Return** again. → *An Acknowledgment displays indicating that all tasks associated with this timetable will be deleted.*
4. Answer **Y** to delete the timetable, and press **Return**. → *The timetable has been deleted.*
5. Press **Exit** to close the Timetable window and return to your previously opened window. → *The previous normal user window(s) display.*

Timetable List All Example

The Timetable: List All window (Figure 5-7) shows the status of all timetables. Possible values in the status field are:

Finished	The timetable was scheduled to run once and it completed successfully.
Failed	The timetable failed to run successfully. Failed refers to the last scheduled run time. For example, if a timetable does not run (for example, <i>CentreVu</i> CMS is off) and the timetable is rescheduled (daily, hourly, etc.), the List All window indicates Failed in the status but the next run time is correct, and the timetable runs as scheduled in the future. To recover from this situation, if you want to run the timetable for the time that it failed, go into the timetable and change the start time to the immediate future (two minutes or so from the present), and change the start date to today's date.
Successful	The timetable completed successfully.
Unscheduled	The timetable does not have an assigned start time (is not scheduled).
Running	The timetable is currently running.

03/20/95 08:30 AM

CentreVu(TM) CMS

Window: 1 of 10

Timetable: List All

Timetable Name	User ID	Status	Next Run	Start		Freq.	Stop		Days						
				Time	Date		Time		Sun	Mon	Tue	Wed	Thu	Fri	Sat
XXXXXXXXXXXXXXXX	XXXXXXX	XXXXXX	xx:xx PM 12/12/93	xx:xx PM	12/11/93	Once	11:59 PM		x	x	x	x	x	x	x
XXXXXXXXXXXXXXXX	XXXXXXX	XXXXXX	xx:xx PM 12/20/93	xx:xx PM	12/20/93	Daily	11:59 PM		x	x	x	x	x	x	x
XXXXXXXXXXXXXXXX	XXXXXXX	XXXXXX	xx:xx PM 12/21/93	xx:xx AM	12/21/93	Weekly	11:59 PM		x	x	x	x	x	x	x

Figure 5-7: Timetable List All

Timetables and the System Clock

If the *UNIX* system/*Solaris* system clock is inadvertently 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, your *CentreVu* CMS system runs extremely slowly until all timetables finish running. This problem can happen yearly at the daylight savings time change or if the switch clock is accidentally changed to a future date/time.

Note

When you change to daylight savings 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, do the following to stop the timetables from running and to 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 *UNIX* system/*Solaris* system clock to the correct time.
3. Go to the *UNIX* system/*Solaris* system, and enter the following commands to turn off *CentreVu* CMS.

```
# cmsadm
```

The program responds with:

```
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:

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

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

5. Enter **2** to turn *CentreVu* CMS off.
6. Turn *CentreVu* CMS back on by typing **cmsadm** at the # prompt, and then entering **1** at the Enter choice (1-9) or q to quit prompt.

The program responds with:

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

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

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

7. Your cursor is at the # prompt. Enter **exit** to return to the \$ prompt, and then log into the *CentreVu* CMS.

Shortcuts

A Shortcut is like a timetable, except with shortcut the tasks are run immediately on your screen. A shortcut is a fast, easy way to select windows that you might look at every day or several times during the day. Shortcut remembers the size and location of your windows. For example, if the first thing you do every day is look at the Split/Skill Status report for skills 2 and 3, you can create and name a shortcut that displays your reports automatically without going through all the ordinary keystrokes to see the reports.

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 any other user's shortcut.
- When creating a shortcut, you cannot have more open windows than your maximum window count (assigned on the 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 enter invalid data in the report input window, the report does not run, but the task is still 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(s).

- 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 Acknowledgment windows stop a shortcut at the task where the error message or Acknowledgment appeared. Correct the problem and rerun the shortcut. For example, lack of permission for a skill causes a shortcut to stop when the shortcut reaches that skill.
- 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 9, "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) that 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, all shortcuts for Skill 3 do not run or display data for Skill 3.

Input Window

From the Shortcut input window (Figure 5-8), you create, modify, delete, or view your shortcuts.

03/20/95 08:30

CentreVu(TM) CMS

Windows: 1 of 10

Shortcut

Chicago

Shortcut name: _____

Description: _____

User ID: _____

Add

Copy

Delete

Find one

Get contents

List all

Modify

Next

Previous

Figure 5-8: Shortcut Input Window

Field/Action List
Usage

- Copy**

Allows you to copy any other user’s shortcut or your own shortcut.
- Get contents**

Displays the tasks currently on a shortcut. You can also add, delete, and modify tasks on the shortcut using `Get contents`.
- List all**

Displays a list of all shortcut names along with the owner’s user ID.

Input Fields

Table 5-3 includes definitions for and directions on completing all fields on the Shortcut input window. See Figure 5-8 for an example of the input window.

Table 5-3: Shortcut Input Fields

Field	Definition
Shortcut name:	Enter a unique name for the shortcut. The shortcut 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 placed on the shortcut. The description is limited to 50 characters.
User ID:	Enter the ID of the user whose shortcut you wish to copy or view.

Creating a Shortcut

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 save changes Acknowledgment.

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

Note You can use multiple input windows on the screen at once by selecting **Move** and **Size** from the **Window** SLK menu, and then moving and sizing the output windows so they do not overlap. This allows you to maximize the terminal screen's space. This is a powerful feature of shortcut. It takes only a few key strokes to get ready for the day or change context quickly.

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 the Main Menu displays.

5. From the Main Menu, go to the task (using the normal menu selection rules) that you want to view. → *The status line on the Main Menu shows Keeping Entries.*

6. Complete the required field entries on the user 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 user window.*
 7. If you do not like the size or location of your Shortcut windows, use the size/move selection from the **Window** SLK menu.
- Note

Like timetable edit mode, you can reuse a window, but if you want to save a window's size and location, use two separate windows.
8. Repeat the user window and action list selections for each task you want to view with this shortcut.
 9. When you have finished adding tasks to this shortcut, press the **Keep** SLK and select Stop from the menu. → *An Acknowledgment displays.*
 10. Enter **Y** to save your shortcut, and then press **Return**. → *Your tasks are now saved on a shortcut.*
All user windows are closed, and the Shortcut window displays with Successful in the status line.
 11. Press the **Exit** SLK to close the Shortcut window and return to your previously opened window. → *Your previous normal user windows display.*

Editing an Existing Shortcut

The Get contents action for Shortcut allows you to do the following to an existing shortcut:

- Add tasks
- Copy tasks
- Delete tasks
- Modify tasks.

When you choose this action, the window shown in Figure 5-9 displays.

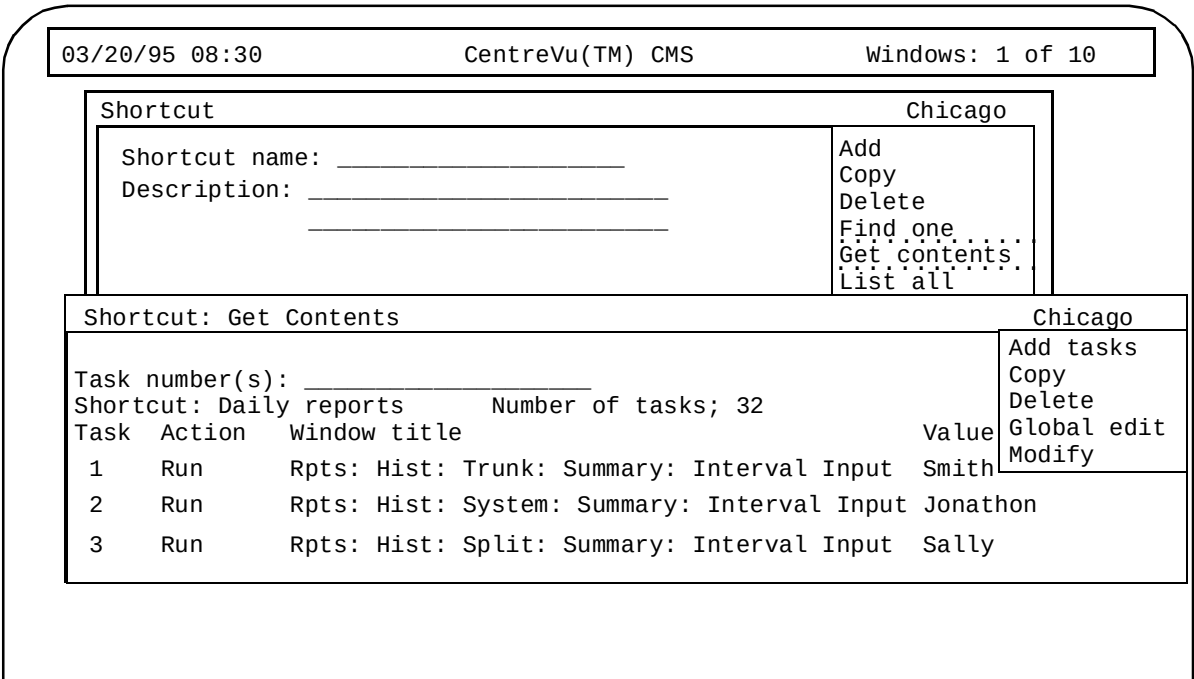


Figure 5-9: Shortcut Get Contents Window

Input Fields

Table 5-4 includes definitions for and directions on completing all fields on the Shortcut Get Contents input window. See Figure 5-9 for an example of the input window.

Table 5-4: Shortcut Get Contents Input Fields

Field	Definition
Task number(s) :	Enter the numbers corresponding to the tasks you want to copy, delete, or modify or the number of the task after which you want to add new tasks. You can enter a list or range for all actions except Add tasks.
Task	Display-only column that lists the number corresponding to the task's position 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.
Values	Display-only column that lists the input data associated with the task.

Adding Tasks to an Existing Shortcut

The `Add tasks` action returns you to the Main Menu and allows you to add tasks to the shortcut following the task you specify in the same manner in which you add tasks when you first create a shortcut.

Note You may only enter a single task number for this action; lists and ranges are not valid. If you entered more than one task or entered a range of tasks, an error Acknowledgment displays to tell you that this is not allowed. Press `Return`, and try again with a single task number.

When you are finished adding tasks to the shortcut, select `Stop` from the `Keep` SLK menu. An Acknowledgment window displays asking whether the changes should be changed. After you have answered the questions, you are returned to the Get Contents window. The new task you added displays in this window.

Note To get out of Shortcut add tasks at any time without saving any changes, select `Stop` from the `Keep` SLK menu, and then answer `n` to the save changes Acknowledgment.

1. Select `Shortcut` from the `Keep` → *The Shortcut Input window displays.*
2. Enter the shortcut name to which you want to add a task in the `Shortcut name` field.
3. Press the `Return` key, highlight `Get contents` on the action list. Press the `Return` key again. → *The shortcut must already exist, and only the owner of the shortcut can edit it (unless the user is an administrator).*
4. In the `Task number(s)` field, enter the number of the task after which you want to add tasks. Press the `Return` key.

Note Tasks are numbered x of N where x is the position in the list, and N is the total number of tasks on the shortcut.

5. Select the Add tasks action, and press the **Return** key. → *The Main Menu 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. From the Main Menu, go to the task (using normal menu selection rules) that you want to schedule. → *The status line on the Main Menu shows Keeping Entries.*
7. Complete the required field entries on the user 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 user window.*
8. Repeat the above steps to add as many tasks as you need.
9. When you are done adding tasks, press the **Keep** SLK and select Stop. → *An Acknowledgment asks if you want to save your changes.*
10. Enter **Y** to save the new tasks.
11. Press the **Return** key. → *The Shortcut: Get Contents window displays with the entries you chose in the preceding menu.*
12. Press the **Exit** key. → *The Get Contents window is closed and the Shortcut window displays.*

Copying Tasks for an Existing Shortcut

The **Copy** action makes a copy of each task you entered in the input field. After you select this action, a secondary window displays (Figure 5-10) to allow you to specify whether the copies are to be placed after a specified task in the shortcut or whether each copy should appear directly following the task for which it is a copy. The default is to place the copies after the last task in the shortcut.

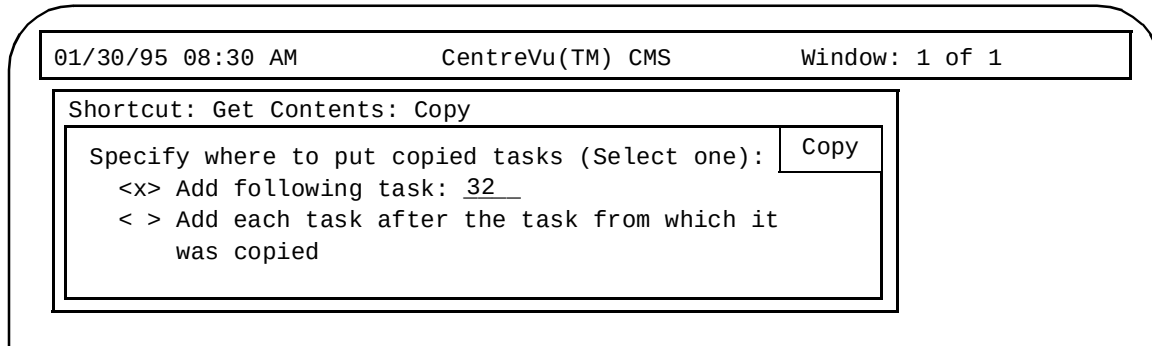


Figure 5-10: Shortcut Get Contents Copy Action Window

After you have entered your choice and selected the **Copy** action, the copies are made. If the copy succeeded, the status line displays **Successful**, and the cursor returns to the input field of the **Get Contents** window. If the copy **did not** succeed, **Failed** displays on the status line, and an **Acknowledgment** window explains the reason for the failure.

If you try to copy so many tasks that you exceed the 100-task limit for shortcuts, the **Copy** action fails, none of the tasks are copied, the status line displays **Failed**, and an error **Acknowledgment** informs you that you cannot copy so many tasks to the shortcut.

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

3. Press the **Return** key, and then highlight Get contents on the action list. Press the **Return** key again. → *The Shortcut: Get Contents window displays. You are now in the Keep mode.*
The shortcut must already exist, and only the owner of the shortcut can edit it (unless the user is an administrator).
4. In the Task number(s) field, enter the number of the task you want to copy. Press the **Return** key.
5. Select the Copy action. → *The Shortcut: Get Contents: Copy window displays.*
6. Enter an x by the Add following task or the 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 timetable.*
Choosing the Add each task after the task for which it was copied causes each copy to display directly following the task for which it is a copy.
7. Press the **Return** key to select the Copy action.
8. Press the **Return** key again. → *The messages Working and Successful display.*
The Shortcut: Get Contents window displays.
9. Press the **Exit** key. → *The Shortcut window displays.*

Deleting Tasks from an Existing Shortcut

The **Delete** action deletes the specified task(s) from the shortcut.

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

1. Select **Shortcut** from the **Keep** → *The Shortcut Input window displays.*
SLK menu.
2. Enter the shortcut name from which you want to delete tasks in the **Shortcut name** field.
3. Press the **Return** key, and then highlight **Get contents** on the action list. Press the **Return** key again. → *The Shortcut: Get Contents window displays. You are now in the Keep mode.*
The shortcut must already exist, and only the owner of the shortcut can edit it (unless the user is an administrator).
4. In the **Task number(s)** field, enter the number of the task you want to delete. Press the **Return** key.
5. Select the **Delete** action. → *The tasks you selected are deleted, and the remaining tasks move up in position on the list.*
6. Press the **Exit** key. → *The Shortcut window displays.*

Modifying Tasks In an Existing Shortcut

The **Modify** action chosen from the Get Contents window brings up the window associated with each of the tasks you entered in the input field. Each window shows the data currently entered for that task. The windows display one after the other, in the order in which you entered the task numbers in the input field. Each task has **Task x of N** displayed on the status line. You can change the data for the task, the action for the task, or both. You must select an action in order to complete the modification. The default action for the task is the one currently associated with the task. In this way, you can press **Return** twice to complete the modification of task data without changing the action for the task. Once you have selected an action, the window for the next task to be edited displays. When there are no more tasks to modify, you are returned to the Get Contents window.

Note

If you press **Exit** without having selected an action, a Return Acknowledgment displays informing you that the modification for this task is cancelled (that is, the input values have not been changed for this task). Press **Return** to continue.

When you press **Return** the window for the next task to be modified displays or, if there are no more tasks to be modified, you are returned to the Get Contents window. The cursor returns to the input field in the position it was in when you pressed **Return** to move to the action list. The **Current** and **MainMenu** SLKs are blocked while you are modifying tasks. The terminal beeps if you select one of these keys. The only valid choice on the **Keep** SLK menu is **Stop**. It can be used to terminate the modifications before you have modified all the tasks you selected and returns you to the Get Contents window.

You can move and size shortcut windows when modifying them, and the new size and position are saved.

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

1. Select **Shortcut** from the **Keep** SLK menu. → *The Shortcut Input window displays.*
2. In the **Shortcut name** field, enter the name of the shortcut for which you want to modify a task.
3. Press the **Return** key, and then highlight **Get contents** on the action list. Press the **Return** key again. → *The Shortcut: Get Contents window displays. You are now in the Keep mode.*
The shortcut must already exist and only the owner of the shortcut can edit it (unless the user is an administrator).
4. In the **Task number(s)** field, enter the numbers of the tasks you want to modify. Press the **Return** key.

Note Tasks are numbered x of N where x is the position in the list, and N is the total number of tasks on the shortcut.

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

Copying an Existing Shortcut

Note

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

1. Select **Shortcut** from the **Keep** → *The Shortcut Input window displays.*
2. In the **Shortcut name** field, enter a new name for the shortcut you want to copy.
3. Enter your ID in the **User ID** field. → *The shortcut being copied is copied to your ID.*
4. Press **Return**; then highlight **Copy** on the action list, and press **Return** again. → *The Copy window displays.*
5. In the **Shortcut copy from** field, enter the name of the shortcut you want to copy.
6. In the **User ID** field, enter the ID of the user whose shortcut you want to copy.
7. Press **Return**; then highlight **Copy** on the action list, and press **Return** again to copy the shortcut.
8. Press **Exit** to close the **Shortcut: Copy** window and return to your previously opened shortcut window. → *Your previous shortcut window displays.*
9. Press **Exit** to close the shortcut window and return to your previously opened window. → *Your previous normal user window(s) display.*

Deleting an Existing Shortcut

To delete a shortcut that already exists, follow these steps:

1. Select Shortcut from the **Keep** → *The Shortcut Input window displays.*
SLK menu.
2. Enter a shortcut name you want to delete in the Shortcut name field.
3. Press **Return**; then highlight Delete on the action list, and press **Return** again. → *An Acknowledgment displays indicating that all tasks associated with this shortcut will be deleted.*
4. Answer **Y** to delete your shortcut. → *Your shortcut has been deleted.*
5. Press **Exit** to close the Shortcut window. → *Your previous normal user window(s) display.*

Running a Shortcut

To run a shortcut, follow these steps

1. Enter the shortcut name after the semicolon (;) on the Main Menu.
2. Press **Return**.

→ *The shortcut starts running, and the keyboard locks until the shortcut finishes. Successful appears on the status line.*

General Information

Audience

Chapter 6 is written for the *CentreVu*™ Call Management System (*CentreVu* CMS) administrator and all users with Dictionary access.

Introduction

From the Dictionary subsystem (Figure 6-1), you can:

- Enter *CentreVu* CMS login IDs and corresponding agent names.
- Assign names to splits/skills, trunk groups, call work codes, ACDs, 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 fields.
- Obtain a report on most parts of the Dictionary subsystem.

Dictionary-Specific Rules

- Names (synonyms) must begin with an alphabetic character.
- Dictionary names can be 1 to 20 characters, and can include underscores, blanks, commas, periods, single quotes, and the plus sign.

Note

Blanks are not allowed Calculation and Constant names, but are allowed in all other Dictionary names.

- Descriptions in the Dictionary can be 1 to 50 characters and can include all typewriter 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—that is, 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 everything.

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

Dictionary Menu

The Dictionary subsystem menu (Figure 6-1) is shown below.

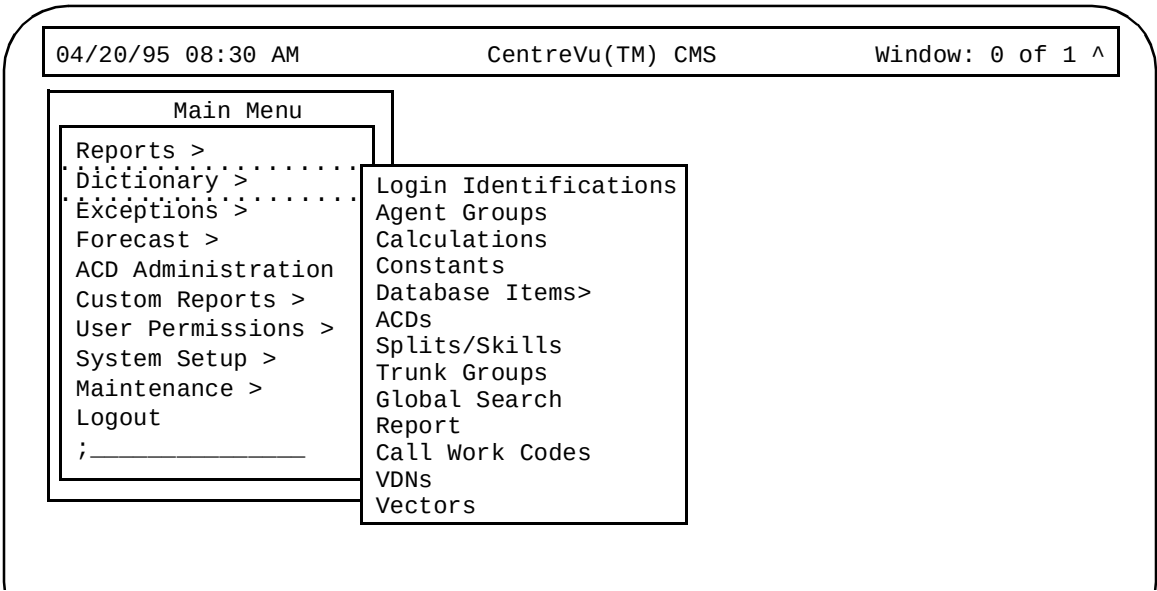


Figure 6-1: Dictionary Menu

Note

If you have not purchased the Vectoring feature, the VDNs and Vectors items do not display on your menu.

Login Identifications

From the Login Identifications window, you assign agent names to login IDs (which agents use to log into their voice terminals). The login IDs are used by *CentreVu* CMS 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.

Note

CentreVu CMS lists names alphabetically based on the first character entered in the Agent name field. If the first character is the first name of an agent (for example, Jane Brown), *CentreVu* CMS uses the J, *not the B for Brown*, to sort alphabetically.

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.
- You cannot assign more than one agent name to the same login ID.
- You cannot have duplicated login IDs and agent names. You will receive a message stating that the login ID or name already exists.
- You cannot assign the same agent name to multiple login IDs.
- You can only use 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 need **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 9, “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 rerun it to see the new agent name(s).

Timetable

You can place the Login Identification window on a timetable. See Chapter 5, "Timetable and Shortcut."

Input Window

To add, modify, delete, or view login IDs, you must complete the Login Identifications window (Figure 6-2).

04/10/95 08:30 AM		CentreVu(TM) CMS	Windows: 1 of 1 ^
Dictionary - Login Identifications		acd1	
Login ID: _____	Add Delete Find one List all Modify Next Previous		
Agent name: _____			

Figure 6-2: Login Identifications Window

Input Fields

Table 6-1 includes definitions for and directions on completing all fields on the Dictionary: Login Identifications input window. See Figure 6-2 for an example of the input window.

Table 6-1: Login Identifications Input Fields

Field	Definition						
Login ID:	Enter the login ID number that you want to view, add, delete, or modify. If you want to change the agent name associated with a Login ID, you must first delete the existing name and then add the new name. Login IDs for a Generic 2 or System 85 switch are 4-digit numbers, with the first digit always greater than 0. Login IDs for a Generic 1 or Generic 3 switch without Expert Agent Selection (EAS) may be 1- to 9-digit numbers. Login IDs for a Generic 3 Version 2 or later switches with EAS must be 5 digits or less. Example: <table> <tr> <td>For G2/System 85:</td><td>1234 1000 9999</td></tr> <tr> <td>For G1/G3 without EAS:</td><td>1 (1-digit logins) 423 (3-digit logins) 1234567 (7-digit logins) 999999999 (9-digit logins)</td></tr> <tr> <td>For G3V2 and later with EAS:</td><td>92345 99999 333</td></tr> </table>	For G2/System 85:	1234 1000 9999	For G1/G3 without EAS:	1 (1-digit logins) 423 (3-digit logins) 1234567 (7-digit logins) 999999999 (9-digit logins)	For G3V2 and later with EAS:	92345 99999 333
For G2/System 85:	1234 1000 9999						
For G1/G3 without EAS:	1 (1-digit logins) 423 (3-digit logins) 1234567 (7-digit logins) 999999999 (9-digit logins)						
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 window, CMS lists names alphabetically based on the first character entered in the Agent name field. Therefore, if the first character is the first name of an agent (for example, Jane Brown), CMS uses the J, <i>not the B for Brown</i>, to sort alphabetically.						

Agent Groups

Use the Agent Groups window, to create and name, copy, or delete agent groups. Agents can be grouped to meet your needs, 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.

You can also use this window to add, delete, or list the agents in a group.

Things to Know Before You Start

- Creating Agent Groups is an optional administration procedure.
- The `Copy` and `Get contents` action list item procedures are different from the standard procedures outlined in Chapter 2. See "Nonstandard Action List Items and Procedures" later in this section for more information.
- 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 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 9, "User Permissions," for more information.

Relationships to Other Subsystems

Reports

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

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

Timetable

You can also place the Agent Groups window on a timetable. See Chapter 5, “Timetable and Shortcut,” for more information.

Input Window

To add, copy, delete, modify, or view agent groups, you must complete the Agent Groups window (Figure 6-3).

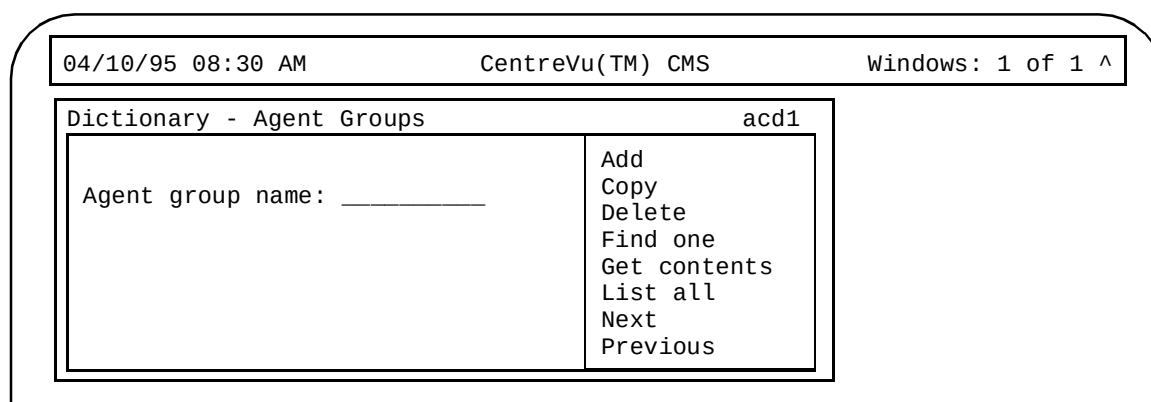


Figure 6-3: Agent Groups Window

Input Fields

Table 6-2 includes definitions for and directions on completing all fields on the Dictionary: Agent Groups window. See Figure 6-3 for an example of the input window.

Table 6-2: Agent Groups Input Fields

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

Creating an Agent Group

1. Select Agent Groups from the Dictionary menu, and press **Return**. → *The Agent Groups window displays.*

2. Enter the ACD for which you want to create the agent group and the group name, and press **Return**. → *Cursor moves to the action list.*
3. Select **Add**, and press **Return**. → *Working appears on the status line until the action completes, and then Successful appears.*

Removing an Agent Group

1. Select **Agent Groups** from the Dictionary menu, and press **Return**. → *The Agent Groups window displays.*
2. Enter the ACD from which you want to remove the agent group (to remove an agent group from all ACDs for which it is defined, leave the ACD field blank) and the group name, and press **Return**. → *Cursor moves to the action list.*
3. Select **Delete**, and press **Return**. → *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 (Figure 6-4) appears. The Agent Groups: Copy window can be used 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. To create or rename an agent group, enter the new or changed group name in the Agent Groups window and the name of the copy-from group in the Agent Groups: Copy window.

Note

The new group name cannot already exist in the database as an agent group name.

If you are only renaming the group, delete the original group you copied from. This saves space in the database.

Copy Window

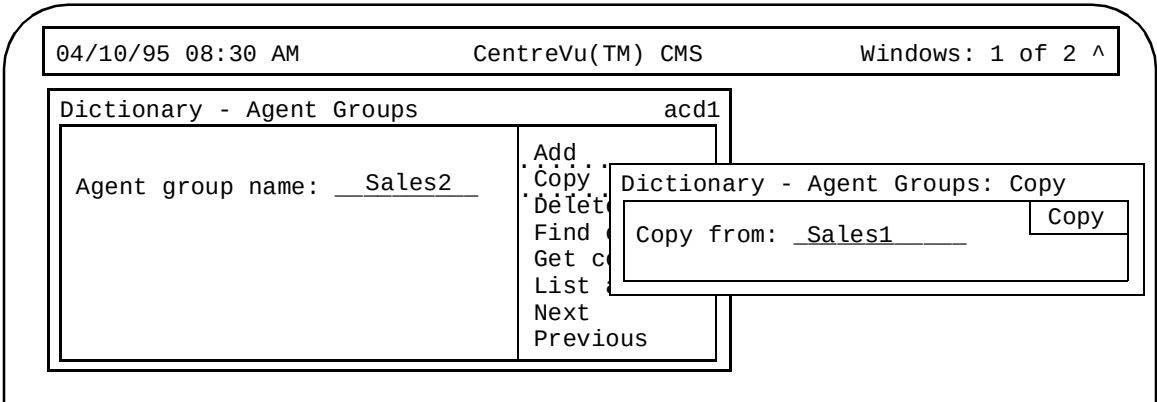


Figure 6-4: Agent Groups—Copy Window

Input Fields

Table 6-3 includes definitions for and directions on completing all fields on the Dictionary: Agent Groups: Copy input window. See Figure 6-4 for an example of the input window.

Table 6-3: Agent Groups Input Fields

Field	Definition
Copy from: (Requires an entry)	Enter the name of the existing <i>Agent Group</i> that you want to copy in the <code>Copy from</code> field.

Copying an Agent Group

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

Get Contents

When you select `Get contents` from the Agent Groups window, a secondary window (Figure 6-5) appears. The Agent Groups: Get contents window can be used to add members (agents) to, delete members from, or list the members of an existing agent group.

Note

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

Get Contents Window

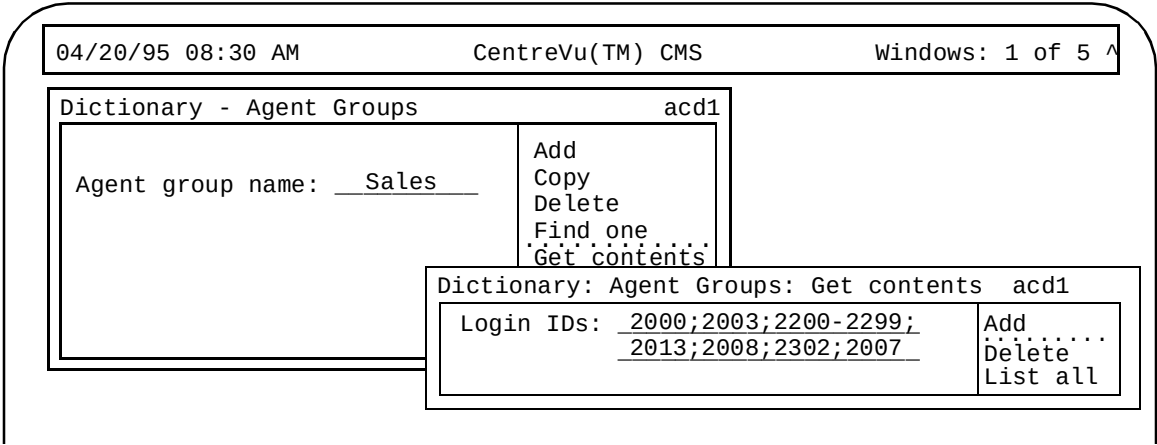


Figure 6-5: Agent Groups—Get Contents

Input Fields

Table 6-4 includes definitions for and directions on completing all fields on the Dictionary: Agent Groups: Get Contents input window. See Figure 6-5 for an example of the input window.

Table 6-4: Agent Groups: Get Contents Input Fields

Field	Definition
Login IDs:	Enter the Login IDs of the agents you are adding, deleting, or listing for the group you entered in the Agent group name field. Up to 1000 values (login IDs) can be entered in this field. Enter a semicolon (;) to separate individual values (1001;1004). Enter a hyphen (-) to define a range of values (1001-1004 includes login IDs 1001, 1002, 1003, and 1004).

Adding Agents to an Agent Group

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

Deleting Agents from an Agent Group

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

Listing All Agents in an Agent Group

1. Select Agent Groups from the Dictionary menu, and press **Return**. → *The Agent Groups window displays.*
2. Enter the name of the agent group for which you want to list all agents, and press **Return**. → *The cursor moves to the action list.*
3. Select Get contents, and press **Return**. → *The Agent Groups: Get Contents window displays.*
4. Select List all, and press **Return**. → *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-lowercase letter format to distinguish them from the standard *CentreVu* CMS calculations, which have an all-upper-case letter format.
 - If you change a standard *CentreVu* CMS calculation, standard reports could be adversely affected. Reports should run, but the results may be different.
 - You cannot embed calculations within calculations more than three levels deep (reports will not run if you do).
 - You cannot create calculations that reference each other in a circular fashion (reports will not run if you do).
 - The standard *CentreVu* CMS calculations are listed in the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) and the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) documents.
 - 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 9, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

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

Custom Reports

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

Note

If you run a custom report that uses a calculation that is **not** in the Dictionary, you receive an error message.

Input Window

To view standard calculations and add, delete, modify, or view your own calculations, you must complete the Calculations window (Figure 6-6).

04/20/95 08:30 AM		CentreVu(TM) CMS	Windows: 1 of 10 ^
Dictionary: Calculations		All ACDs	
Calculation name:	_____	Add	
Calculation:	_____	Delete	
	_____	Find one	
Description:	_____	List all	
		Modify	
		Next	
		Previous	

Figure 6-6: Calculations Window

Input Fields

Table 6-5 includes definitions for and directions on completing all fields on the Dictionary: Calculations input window. See Figure 6-6 for an example of the input window.

Table 6-5: Calculations Input Fields

Field	Definition
Calculation name:	Enter the name of the calculation you want to view, add to the database, modify, or delete. The name must be alphanumeric and no more than 20 characters.
Calculation:	Enter the formula for the calculation. For example, the formula for the agent calculation “Average ACD Talk Time” is: ACDTIME/ACDCALLS Calculations can include: — Database items (for example, ACDCALLS for ACD calls) — Constants — Calculation(s) (as many as three) — 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. Constants do not exist in *CentreVu* CMS when it is first installed.

Note

For a more complete description of Constants, see the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) 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 9, “User Permissions,” for more information.

Relationships to Other Subsystems

Custom Reports

Constants are only used in Custom Reports.

Note

If you run a custom report that uses a constant that has **not** been specified in the Dictionary, you receive an error message.

Input Window

To add, delete, modify, or view your own constants, you must complete the Constants input window (Figure 6-7).

04/20/95 08:30 AM

CentreVu(TM) CMS

Windows: 1 of 10 ^

Dictionary: Constants

All ACDs

Constant name: _____

Value: _____

Description: _____

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 6-7: Constants Window

Input Fields

Table 6-6 includes definitions for and directions on completing all fields on the Dictionary: Constants input window. See Figure 6-7 for an example of the input window.

Table 6-6: Constants Input Fields

Field	Definition
Constant name:	Enter the name of the constant 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 -99999 to +999999.
Description:	Enter the description of the constant.

Database Items >

Selections from the Database Items menus (Figure 6-8) 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, vectors, trunk numbers, and trunk group numbers. In addition, database items may store statistical data compiled from your call center's activity. The number of ACD calls, the wait time for calls in queue, and whether an agent is currently on an ACD call are examples of this statistical data.

The Database Items subsystem is divided into five categories:

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

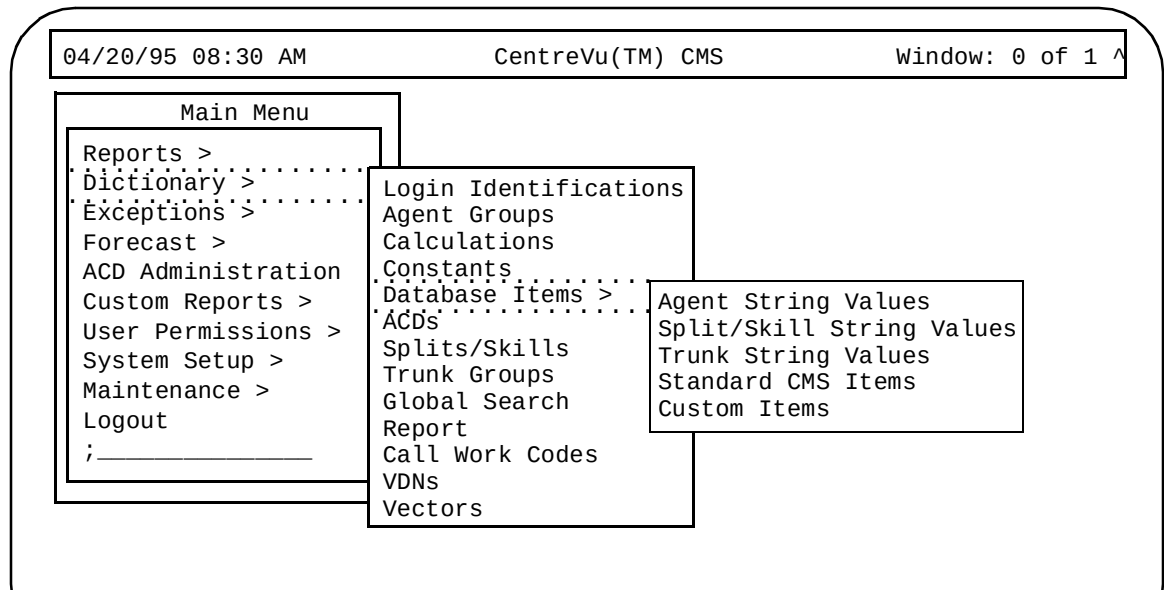


Figure 6-8: Database Items Menu

Agent String Values

Agent string values are the descriptive words on reports dealing with agents. The *word* is used to describe the value of the data. From the Agent String Values window, you can change the *CentreVu* CMS default values for these words 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 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 9, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

Any change you make here affects what you see in the descriptive data (word) fields on your standard agent reports.

Timetable

The Agent String Values window can be placed on a timetable. See Chapter 5, “Timetable and Shortcut,” for more information.

Input Window

To modify the default agent string values, you must complete the Agent String Values window (Figure 6-9).

04/20/95 08:30 AM		CentreVu(TM) CMS		Windows: 1 of 4 ^	
Dictionary: Database Items: Agent String Values				All ACDs	
Work Mode		Call Direction		Modify	
ACD:	ACD	IN:	IN		
ACW:	ACW	OUT:	OUT		
AUX:	AUX				
AVAIL:	AVAIL	Call Origination			
DACD:	DACD	PHONE:	PHONE		
DACW:	DACW	KEYBOARD:	KEYBOARD		
OTHER:	OTHER	Call Destination			
RINGING:	RINGING	PBX:	PBX		
UNKNOWN:	UNKNOWN	OFF:	OFF		
UNSTAFF:	UNSTAFF				
Agent Trace Work Mode					
LOGON:	LOGON				
LOGOFF:	LOGOFF				

Figure 6-9: Agent String Values Window

Input Fields

Table 6-7 includes definitions for and directions on completing all fields on the Dictionary: Agent String Values input window. See Figure 6-9 for an example of the input window.

Table 6-7: Agent String Values Input Fields

Field	Definition
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 is working on a direct agent or other call for another split or skill, or has put a call on hold and has not chosen another work mode. RINGING An ACD call is ringing at the agent's voice terminal. UNKNOWN <i>CentreVu</i> CMS does not recognize the current state. UNSTAFF The agent is not staffed (logged into <i>CentreVu</i> CMS).
Agent Trace Work Mode	To change the Agent Trace Work Mode default names, enter the new descriptive word next to LOGON or LOGOFF. • LOGON: —An agent is logged in and available to take ACD calls. • LOGOFF: —An agent is logged out and not available to take ACD calls.

Table 6-7: Agent String Values Input Fields (Contd)

Field	Definition
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. • 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. Call origination is used only with the OCM (Outbound Call Management) feature.
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.

Split/Skill String Values

Split/Skill string values are the descriptive words on the Split/Skill Call Profile reports. The *word* is 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 or skill string values, you need **read** permission for the Dictionary subsystem.
- To change any split or skill string values, you need **write** permission for the Dictionary subsystem.
- See Chapter 9, “User Permissions,” for more information.

Relationships to Other Subsystems

Reports

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

Timetable

The Split/Skill String Values window can be placed on a timetable. See Chapter 5, “Timetable and Shortcut,” for more information.

Input Window

To modify the default values for split or skill strings, you must complete the Split/Skill String Values window (Figure 6-10).

Dictionary: Database Items: Split/Skill String Values		acd1
Service Level Changed	YES: <u>YES</u> NO: <u>NO</u>	Modify
Period Changed	YES: <u>YES</u> NO: <u>NO</u>	

Figure 6-10: Split String Values Window

Input Fields

Table 6-8 includes definitions for and directions on completing all fields on the Dictionary: Split String Values input window. See for an example of the input window.

Table 6-8: Split String Values Input Fields

Field	Definition
Service Level Changed	On the Split/Skill Call Profile window (see Chapter 8, “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 names that appear on the Split/Skill Call Profile report: • YES : —Enter the descriptive word you want to appear on the report if you have changed the service level on the Split/Skill Call Profile. • NO : —Enter the descriptive word you want to appear on the report if you have not changed the service level on the Split/Skill Call Profile.
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 names that appear on the Split/Skill Call Profile report: • YES : —Enter the descriptive word you want to appear on the report if you have changed the time periods on the Split/Skill Call Profile report. If you want to change YES, enter your descriptive word. • NO : —Enter the descriptive word you want to appear on the report if you have not changed the time periods on the Split/Skill Call Profile report. If you want to change NO, enter your descriptive word.

Trunk String Values

Trunk string values are descriptive words on trunk reports (for example, IDLE, HOLD, QUEUED, etc.). A *word* is used to describe the value of the data. From the Trunk String Values window, you can change the *CentreVu* CMS default values that appear on these reports to anything that fits 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 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 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 9, “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 any of the standard trunk reports.

Timetable

The Trunk String Values window can be placed on a timetable. See Chapter 5, “Timetable and Shortcut,” for more information.

Input Window

To change the default trunk string values, you must complete the Trunk String Values window (Figure 6-11).

04/20/95 08:30 AM		CentreVu(TM) CMS		Windows: 1 of 1 ^	
Dictionary: Database Items: Trunk String Values				All ACDs	
Trunk State				Modify	
IDLE: <u> IDLE </u>		Call Priority (Non-vectoring)			
SEIZED: <u> SEIZED </u>		YES: <u> YES </u>			
QUEUED: <u> QUEUED </u>		NO: <u> NO </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>		Call Direction			
RINGING: <u> RINGING </u>		IN: <u> IN </u>			
UNKNOWN: <u> UNKNOWN </u>		OUT: <u> OUT </u>			
Queue Type		All Trunks Busy			
MAIN: <u> MAIN </u>		YES: <u> YES </u>			
BACKUP: <u> BACKUP </u>		NO: <u> NO </u>			

Figure 6-11: Trunk String Values Window

Input Fields

Table 6-9 includes definitions for and directions on completing all fields on the Dictionary: Trunk String Values input window. See Figure 6-11 for an example of the input window.

Table 6-9: Trunk String Values Input Fields

Field	Definition
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 an ACD call. DABN The caller abandoned the call. FBUSY The caller receives a forced busy signal (Generic 1, Generic 3, or Generic 2/System 85 with Call Vectoring). FDISC The caller receives a forced disconnect (Generic 1, Generic 3, or Generic 2/System 85 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.

Table 6-9: Trunk String Values Input Fields (Contd)

Field	Definition
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. (No standard reports 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 seizing the trunk is queued to a split or skill as a result of a vector command other than “queue to main split/skill”.
Call Priority (Non-vectoring)	To change the Call Priority default names, enter the new descriptive name next to YES or NO. • YES: —The call has priority entering the split. • NO: —The call does not have priority entering the split.
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 associated with the trunk. The name you enter here will appear instead of the default name in real-time reports containing the trunk database item PRIORITY. (No standard reports contain this item.) • LOW: —The call seizing the trunk is queued to a split or skill at the lowest priority level. • MED: —The call seizing the trunk is queued to a split or skill at the second lowest priority level. • HIGH: —The call seizing the trunk is queued to a split or skill at the second highest priority level. • TOP: —The call seizing 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 agent is currently on an incoming call. • OUT: —The agent is currently on an outbound call.

Table 6-9: Trunk String Values Input Fields (Contd)

Field	Definition
All Trunks Busy	To change the All Trunks Busy default names, enter the new descriptive word next to YES or NO. • YES : —All trunks are currently busy (in use or MBUSY). • NO : —Not all trunks 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 the Tables Are Used

Each column in a table represents a specific type of ACD data (number of ACD calls, abandons, time on ACD calls, etc.). Therefore, standard database items cannot be **modified or deleted**. 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 6-10 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 6-10: Current Real-Time Agent Example

EXTENSION	SPLIT	LOGID	LOGONSTART	WORKMODE	STARTED	DIRECTION	CHANGED	>*
1000	1	4000	8:00	AVAIL	8:00	NUL	8:01	>
1001	1	5966	7:58	ACD	8:00	IN	8:04	>
1002	1	2200	7:59	ACD	8:00	IN	8:03	>
.	.	.	.	.	.	.	.	>
.	.	.	.	.	.	.	.	>
.	.	.	.	.	.	.	.	>

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

Description of Column Headings (Database Items) for Table 6-10.

EXTENSION	The extension number that the agent is using.
SPLIT	The split or skill number that the extension is assigned to and/or that the agent logged into.
LOGID	The login identification the agent used to staff the extension.
LOGONSTART	The time the agent logged into <i>CentreVu</i> CMS.
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 when the agent started a new activity.

As you can see from this brief example, each extension has an entry for each agent activity, and these tables can become quite large. Initially, you will probably look up database items for their definitions, but you will use them most when creating custom reports. See the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) 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-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

- 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 R3V4 Custom Reports* (AT&T 585-215-802) document for more information.

Input Window

To view standard *CentreVu* CMS items, complete the following window (Figure 6-12).

04/20/95 08:30 AM		CentreVu(TM) CMS		Windows: 1 of 10 ^	
Dictionary: Standard CMS Items				All ACDs	
Database item:	_____	Find one			
Description:	_____	List all			
Table:	_____	Next			
		Previous			

Figure 6-12: Standard CMS Items Window

Input Fields

Table 6-11 includes definitions for and directions on completing all fields on the Dictionary: Standard CMS Items input window. See Figure 6-12 for an example of the input window.

Table 6-11: Standard CMS Items Input Fields

Field	Definition
Database item:	Enter the name of the database item you want to look up. If you are working with custom database items, enter the name of the custom database item you want to add, modify, delete, or view. The custom database item must be unique with the table you specify in the table field. Item names must be alphanumeric and no more than 20 characters.
Description:	Describes the database item. If you know the description, enter it here. If you are working with custom database items, enter a description of the database item. You can add, modify, or delete this description. Item descriptions can be up to 50 characters.
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

From the Custom Items window, you can define your own database items which are stored in their own tables within the *CentreVu* CMS database. 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 R3V4 Custom Reports* (AT&T 585-215-802) document for more information on using and creating your own custom database items.

Prerequisite System Administration

- You need **write** permission for the Dictionary subsystem and Custom Reports to create custom database items.
- You should 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.

Input Window

To add, delete, modify, or view your own custom database items, complete the Custom Items window (Figure 6-13).

04/20/95 08:30 AM		CentreVu(TM) CMS	Windows: 1 of 4 ^
Dictionary: Custom Items		ACD1	
Database item:	_____	Add Delete Find one List all Modify Next Previous	
Description:	_____		
Table:	_____		

Figure 6-13: Custom Items Window

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

Input Fields

Table 6-12 includes definitions for and directions on completing all fields on Dictionary: Custom Items input window. See Figure 6-13 for an example of the input window.

Table 6-12: Custom Items Input Fields

Field	Definition
Database item:	Enter the name of the database item you want to look up. If you are working with custom database items, enter the name of the custom database item you want to add, modify, delete, or view. The custom database item must be unique with the table you specify in the table field. Item names must be alphanumeric and no more than 20 characters.
Description:	Describes the database item. If you know the description, enter it here. If you are working with custom database items, enter a description of the database item. You can add, modify, or delete this description. Item descriptions can be up to 50 characters.
Table :	Lists all the tables (one table at a time) that contain this particular database item (real-time and historical), or all of the items in one database. Table names must be alphabetic.

ACDs

From the ACDs window, you assign names to any real or pseudo-ACD(s).

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*.

Note

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.
- To view ACD names, you need **read** permission for the Dictionary subsystem.
- See Chapter 9, “User Permissions,” for more information on assigning read and write permission.

Relationships to Other Subsystems

All Subsystems

The name 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 5, “Timetable and Shortcut,” for more information.

Input Window

To add, modify, delete, or view ACD names, complete the following window (Figure 6-14).

04/20/95 08:30 AMCentreVu(TM) CMSWindows: 1 of 4 ^

Dictionary: ACDs

ACD name: _____ACD number: _____Description: _____

AddDeleteFind oneList allModifyNextPrevious

Figure 6-14: ACDs Window

Input Fields

Table 6-13 includes definitions for and directions on completing all fields on the Dictionary: ACDs input window. See Figure 6-14 for an example of the input window.

Table 6-13: ACDs Input Fields

Field	Definition
ACD name:	Enter the ACD name you want to add, delete, modify, or view.
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

You can 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 broken out by “Sales,” “Customer Service,” and “Wholesale,” assign those names to the splits that handle those areas of the business. On the other hand, if you want skills in your system to be broken out by “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 splits or skills 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.
- 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 9, “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 split/skill windows and split/skill 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(s).

Exceptions

If you assign exceptions to splits or skills, the split or skill names you assign appear in the exceptions text. Also, 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 5, "Timetable and Shortcut," for more information.

Input Window

To add, delete, modify, or view split or skill names, you must complete the following window (Figure 6-15).

04/20/95 08:30 AMCentreVu(TM) CMSWindows: 1 of 10 ^

Dictionary: Splits/Skills

ACD: _____

Split/Skill name: _____

Split/Skill number: _____

Description: _____

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 6-15: Splits/Skills Window

Input Fields

Table 6-14 includes definitions for and directions on completing all fields on the Dictionary: Splits/Skills input window. See Figure 6-15 for an example of the input window.

Table 6-14: Splits/Skills Input Fields

Field	Definition
ACD:	Enter the name or number of the ACD to which you want to add, delete, modify, or view split/skill names.
Split/Skill name:	Enter the name you want to add, delete, modify, or view for this split or skill. The name must begin with a letter and can be no more than 20 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

From the Trunk Groups window, you can assign names to your ACD trunk groups. 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 trunk groups and splits or skills 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.
 - To add, delete, or change a trunk group name, you need **write** permission for the Dictionary subsystem and the appropriate split.
 - See Chapter 9, “User Permissions,” for more information on assign read/write permission.
-

Relationships to Other Subsystems

Reports

When you assign a trunk group name, that name appears on all trunk group windows and 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. Also, 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 5, "Timetable and Shortcut," for more information.

Input Window

To add, delete, modify, or view trunk group names, you must complete the following window (Figure 6-16).

The screenshot shows a window titled "04/20/95 08:30 AM CentreVu(TM) CMS Windows: 1 of 4 ^". Inside the window, there is a section titled "Dictionary: Trunk Groups". This section contains a table with two columns. The left column has four rows of labels: "ACD:", "Trunk group name:", "Trunk group number:", and "Description:". Each label is followed by a horizontal input line. The right column contains a list of menu items: "Add", "Delete", "Find one", "List all", "Modify", "Next", and "Previous".

Dictionary: Trunk Groups	
ACD:	_____
Trunk group name:	_____
Trunk group number:	_____
Description:	_____

	Add
	Delete
	Find one
	List all
	Modify
	Next
	Previous

Figure 6-16: Trunk Groups Window

Input Fields

Table 6-15 includes definitions for and directions on completing all fields on the Dictionary: Trunk Groups input window. See Figure 6-16 for an example of the input window.

Table 6-15: Trunk Group Input Fields

Field	Definition
ACD:	Enter the name or number of the ACD to which you want to add, delete, modify, or view trunk group names.
Trunk group name:	Enter the name you want to add, delete, modify, or view for this trunk group. The name must begin with a letter and cannot be more than 20 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

From the Global Search window, you can search for anything in the Dictionary. 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.

Note

If you enter an asterisk (*) by itself, you get **everything** in the Dictionary subsystem. This takes a long time and uses a lot of processor time.

- Searching is case-sensitive (that is, 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.

Input Window

To run a global search of the Dictionary, complete the following window (Figure 6-17).

04/20/95 08:30 AM

CentreVu(TM) CMS

Windows: 1 of 2 ^

Dictionary: Global Search Input

All ACDs

Search for: Sales

Run

Dictionary: Global Search

All ACDs

Value matched	Field matched	In submenu	Name
Sales	Split/Skill name	Splits/Skills	Sales
Sales	Agent group name	Agent Groups	Sales

Figure 6-17: Global Search Example

Input Fields

Table 6-16 includes definitions for and directions on completing all fields on the Dictionary: Global Search input window. See Figure 6-17 for an example of the input window.

Table 6-16: Global Search Input Fields

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

Report

From the Report window, you can select any section of the Dictionary listed on the Report window to be printed, sent to a file, or displayed in a set of reports (one report for each section of the Dictionary), or you can 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 this report on a timetable. See Chapter 5, “Timetable and Shortcut,” for more information.

Input Window

To get a report of any section of the Dictionary listed on the Report window (Figure 6-18), you must complete the following window.

04/20/95 08:30 AM CentreVu(TM) CMS Windows: 1 of 1 ^

Dictionary: Report Input

Select any you wish: Run

- ☐ All
- ☐ Login Identification
- ☐ Agent Groups
- ☐ Standard CMS Items
- ☐ Custom Items
- ☐ ACDs
- ☐ Splits/Skills
- ☐ Trunk Groups
- ☐ Call Work Codes
- ☐ VDNs
- ☐ Vectors

Report destination (Select one):

- < > Terminal
- <x> Printer, Printer name: pr1
- < > File,
File Name _____

Figure 6-18: Dictionary Report Input Window

Input Fields

Table 6-17 includes definitions for and directions on completing all fields on the Dictionary: Report input window. See Figure 6-18 for an example of the input window.

Table 6-17: Report Input Fields

Field	Definition
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 .
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 and then press Return. 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. The All selection takes a long time to run. You may want to schedule this selection for off-peak hours.

* UNIX is a registered trademark of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

Call Work Codes

From the Call Work Codes window, you can add, delete, modify, or view call work codes and their names. These names then appear on the call work code standard 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.

Note

Even though you can administer call work codes with digits up to 16 in the ACD Administration subsystem, a call work code associated with a name cannot exceed nine digits. See Chapter 8, “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 8, “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 9, “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 9, “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 this window are displayed on the Call Work Code reports.

Timetable

You can place the Call Work Codes window on a timetable. See Chapter 5, “Timetable and Shortcut,” for more information.

Input Window

You must complete this window (Figure 6-19) if you want names associated with your call work codes to appear on the standard call work code historical reports.

04/20/95 08:30 AMCentreVu(TM) CMSWindows: 1 of 1 ^

Dictionary: Call Work Codesacd1

Call work code name:

Call work code:

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 6-19: Call Work Codes Window

Input Fields

Table 6-18 includes definitions for and directions on completing all fields on the Dictionary: Call Work Codes input window. See Figure 6-19 for an example of the input window.

Table 6-18: Call Work Codes Input Fields

Field	Description
Call work code name:	Enter the name you want to add, delete, modify, or view for this call work code. The name must begin with a letter and be no more than 20 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

If you have not purchased the Vectoring feature, this window is **not** available.

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 a VDN's purpose (sales, customer service, and so on), the destination vector of the VDN (for example, Forc Busy-Nat.Accts), the trunk group(s) assigned to the VDN (for example, wats800-331-1111), and so on.

Use the VDNs window (Figure 6-20) 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 "Vector Configuration" section in Chapter 8, "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 *CentreVu* CMS measurement.
- 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 9, "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 VDN 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 VDN name(s).

Exceptions

If you assign exceptions to VDNs, the VDN names you assign appear 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.

Input Window

To add, delete, modify, or view VDN names, you must complete the following window (Figure 6-20).

04/20/95 08:30 AM

CentreVu(TM) CMS

Windows: 1 of 1 ^

Dictionary: VDNs

acd1

VDN name: _____

VDN: _____

Description: _____

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 6-20: VDNs Window

Input Fields

Table 6-19 includes definitions for and directions on completing all fields on the Dictionary: VDNs input window. See Figure 6-20 for an example of the input window.

Table 6-19: VDNs Input Fields

Field	Definition
VDN Name :	Enter the name of a VDN you want to add, change, delete, or find.
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 If you have not purchased the Vectoring feature, this window is **not** available.

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 a vector's purpose (**sales**, **customer service**, etc.), the VDN(s) assigned to the vector (for example, **vdn2001**, **vdn3001**, **vdn4001**), or the split(s) or skill(s) the vector sends calls to (for example, **sales1**, **sales2**, **audix**).

Use the Vectors window (Figure 6-21) 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.
- A **Find one** or **List all** lists only vectors that have already been assigned names. To get a list of vectors that are available for naming, run the Vector Configuration Report. See the "Vector Configuration" section in Chapter 8, "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

- 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 9, "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) that include that vector. If you make any additions or changes to vector 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 vector name(s).

Exceptions

The vector names you assign 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.

Input Window

To add, delete, modify, or view vector names, you must complete the following window (Figure 6-21).

04/20/95 08:30 AM		CentreVu(TM) CMS		Windows: 1 of 1 ^	
Dictionary: Vectors			acd1		
Vector name:			Add Delete Find one List all Modify Next Previous		
Vector:					
Description:					

Figure 6-21: Vectors Window

Input Fields

Table 6-20 includes definitions for and directions on completing all fields on the Dictionary: VDNs input window. See Figure 6-21 for an example of the input window.

Table 6-20: Vectors Input Fields

Field	Definition
Vector Name:	Enter the name of a vector you want to add, change, delete, or find.
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).

General Information

Audience

Chapter 7 is written for *CentreVu™* Call Management System (*CentreVu* CMS) administrator and all users with Exceptions access.

Introduction

The exceptions feature allows you to administer thresholds for certain times or occurrences and to be alerted when times or occurrences exceed or fall below the thresholds. This allows monitoring “by exception” by being alerted when something is “wrong.”

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 Exceptions Log**—shows an example of the log.

Note

For more information on the Real-Time Exceptions Log, refer to the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

- **Historical Exceptions 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 R3V4 Reports* (AT&T 585-215-801) document.

Use the Exceptions subsystem to:

- Define exceptional conditions for ACD activity involving agents, splits or skills, trunks or trunk groups, vectors and VDNs for which you want notification. You do this using the Exception Administration windows.
- Generate reports on agents, splits or skills, trunks and trunk groups, vectors, VDNs, and other exceptions, including the Real-Time Exceptions Log.

Note

You must have purchased the **Vectoring** feature to define exception conditions and generate reports for VDNs and vectors.

You must have purchased the **Expert Agent Selection** (EAS) feature to define exception conditions and generate reports for skills.

What Is an Exception?

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:

- The terminal beeps, flashes, or beeps and flashes. By default the terminal beeps. 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 Exceptions Log (described later in this chapter) for complete messages on current exceptions. You can also generate historical exceptions reports.

Types of Exceptions

An exception can be one of two types— a **peg count exception** or a **timed exception**.

Peg Count Exceptions

A peg count exception occurs when, within the current interval (described later), 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 which 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.

With the current interval, exception conditions apply **only** to ACD events occurring 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, when you set your exception conditions, you should make sure they 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, and these exceptions can occur multiple times during the login period or even within an interval. The exception count is cleared when the agent leaves the state that triggered the exception.

For example, you could define an exception to notify you whenever agents spend more than 5 minutes in AUX. Then when an agent spends longer than 5 minutes in AUX work, an exception is triggered for that agent, and the exception remains active until the agent changes to some other state, such as AVAIL (available).

Other Timed Exceptions

A timed exception occurs when, within a single interval (always starting from the beginning of the intrahour interval), the number of occurrences of an ACD activity exceeds a threshold **and** 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 acceptable time limit for any call to wait in queue before being answered at 20 seconds. You may then define an occurrence threshold of three for the number of acceptable calls which can wait in the queue for 20 seconds. If, within an interval, more than three separate calls wait in the queue longer than 20 seconds, an exception occurs.

Timed occurrence thresholds apply **only** to ACD activity within the last interval. At the beginning of the interval, the occurrence count for any timed exception type 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. Thus, *CentreVu* CMS continues to track the time spent on an exception activity if that activity continues from one interval into the next.

Interval for Timed Exceptions

The limit for timed exceptions applies to occurrences that happen within each interval, starting and ending at the beginning of the intrahour intervals.

Exceptions Count in the Title Bar

The exceptions count in the EX: field in the Title Bar shows current total of 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 the 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.
- By default, most exceptions are turned *off* (not active). Exceptions checking for the following events are **always turned on** and **cannot** be turned off.
 - Malicious call traces (Generic 2, Generic 3r, and Generic 3 Version 3 only)
 - Data collection disruptions
 - Agent login attempts that are not permitted.

User Permissions for Exceptions

You must have **read** permission for the Exceptions subsystem to access the Real-Time Exceptions Log or historical exceptions reports. You must have **write** permission to set up or modify checking for exceptions. Permission for the Exceptions subsystem is assigned using the User Permissions: Feature Access window. (See Chapter 9, “User Permissions.”)

You must have exceptions permissions for a particular split or skill, trunk group, VDN, or vector to be notified (by beeping, flashing, or the exception count) of an exception for that element and to see exceptions in the real-time Exceptions Log for the particular split or skill, trunk group, VDN, or vector. Permissions for specific splits or skills, trunk groups, VDNs, or vectors are assigned in one of the following windows:

- User Permissions: Split/Skill Access
- User Permissions: Trunk Group Access
- User Permissions: Vector Access
- User Permissions: VDN Access.

If you have multiple ACDs, you must have permission for each ACD to get exceptions for that ACD. You must also have permissions for a particular split/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 Exceptions Log.

See Chapter 9, “User Permissions,” for more information.

Note

If you have exceptions permission for a particular split or skill, but you *do not* have **read** permission for the Exceptions subsystem, *CentreVu* CMS notifies you on the title bar and via a beep and/or flash when certain exceptions occur, even though you cannot access the Real-Time Exception Log or historical exception reports (see Table 7-1).

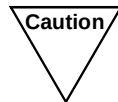
Table 7-1: Capabilities Based on Permissions (Example for a Split/Skill)

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

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 do a **Modify** from the Data Storage Allocation window, the exception records for the current intrahour interval are removed.

Maintenance

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

Dictionary

When you set up *CentreVu* CMS to check for exceptions or order exception reports, you may enter 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 6, “Dictionary,” for more information.)

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

Custom Reports

In the Custom Reports subsystem, you may create custom exception reports or reports that combine exceptions data with regular historical data.



Although the Custom Reports subsystem lets you copy standard real-time and historical reports into a custom report, you **cannot** copy a standard exceptions report into a custom report. Instead, you must individually specify any and all exception items you want in a custom report.

See the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document for information on creating custom reports.

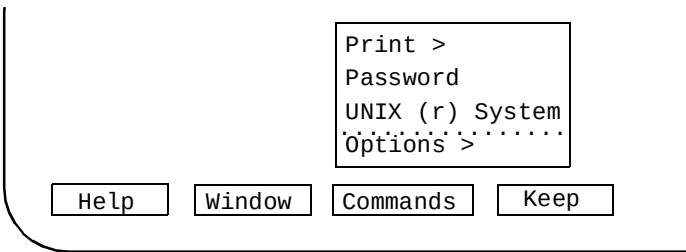
Timetable

You can schedule exceptions administration and reports using Timetable. See Chapter 5, “Timetable and Shortcut,” for more information and procedures.

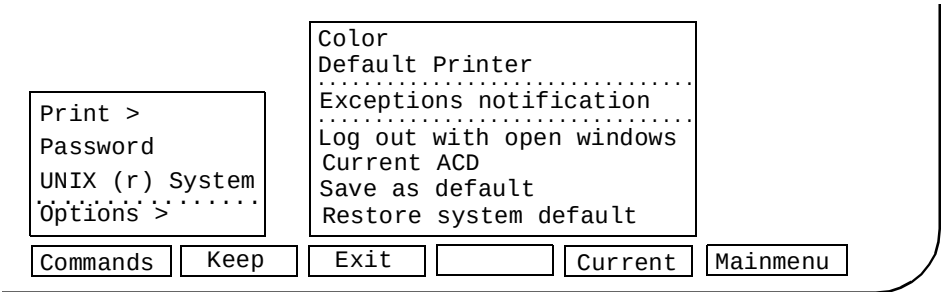
Selecting Your Exception Notification

When you receive an exception notification, you can have your screen flash, beep, beep and flash, or not beep and not flash. Beep is the default value. To change your exception notification, follow these steps:

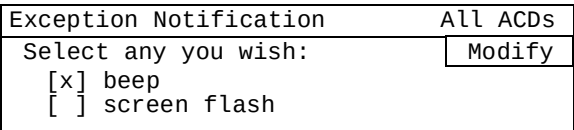
1. Press the **Commands** SLK. → *The Commands menu displays.*



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



3. Select **Exception notification**, and press **Return**. → *The Exception Notification window displays.*



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

Administration

The Exceptions menu (Figure 7-1) lists the Real-Time Exceptions Log and Historical Reports before Administration. However, you should set up your exception conditions before you look at the real-time exceptions 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 presents the Exception Administration descriptions **before** the real-time Exceptions Log and historical reports.

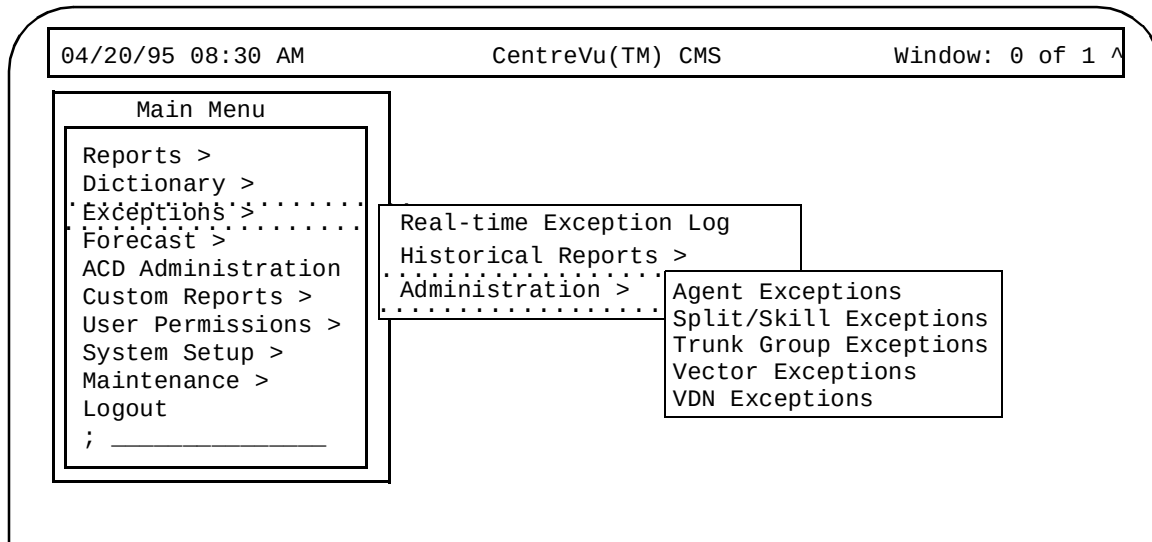


Figure 7-1: Administration Exceptions Submenu

Agent Exceptions

Use the Agent Exceptions Administration 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.
- “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 first three sections in this chapter:
 - “General Rules for Administering Exceptions”
 - “User Permissions for Exceptions” for read/write information
 - “Relationships to Other Subsystems”.

Input Window

You must complete the Agent Exceptions Administration window (Figure 7-2) to set up and turn on *CentreVu* CMS checking for agent exceptions. See Table 7-2 for descriptions of the fields on the Exceptions: Administration: Agent Exceptions input windows.

04/20/95 08:30 AM

CentreVu(TM) CMS

Window: 1 of 6 ^

Exceptions: Administration: Agent Exceptions

acd1

Split(s)/Skill(s):

Add
Delete
Find one
Modify
Next
Previous

Active	Time Limit	Thres-hold	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>	<u> 0 </u>	Number of inbound ACW calls/agent
<u> n </u>	<u> 0 </u>	<u> 0 </u>	Time on outbound ACW calls/agent
<u> n </u>	<u> 0 </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>	<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>	<u> 0 </u>	Number of outbound AUX calls/agent

Figure 7-2: Agent Exceptions Administration Window

04/20/95 12:30 AM		CentreVu(TM) CMS		Window: 1 of 6 ^
Exceptions: Administration: Agent Exceptions				acd1
Split(s)/Skill(s): _____				
	Time	Thres-		
Active	Limit	hold	Exception Type	
n			Login identification	
n	10	_4_	Time on outbound ACD call (min)	
n	300	_0_	Time on outbound ACD call (max)	
n			Number calls transferred	
n	60	_1_	Time ACD call spent on hold	
n			Number ACD calls placed on hold	
n			Number ACD calls abandoned while on hold	
n	30	_0_	Time ACD call spends ringing	
n	Ringing call automatically redirected from agent			
n	0	_0_	Time on direct agent call	
n			Number calls in direct agent queue	
n	0	_0_	Time call waited in direct agent queue	

Add
 Delete
 Find one
 Modify
 Next
 Previous

04/20/95 12:30 AM		CentreVu(TM) CMS		Window: 1 of 6 ^
Exceptions: Administration: Agent Exceptions				acd1
Split(s)/Skill(s): _____				
	Time	Thres-		
Active	Limit	hold	Exception Type	
n			Number calls abandoned from direct agent queue	
n			Number calls outflowed from direct agent queue	
n	0	_0_	Time on external outbound ACW calls	
n			Number of external outbound ACW calls/agent	
n	0	_0_	Time on external outbound AUX calls	
n			Number of external outbound AUX calls/agent	
n	Agent logged out with active/held calls			
n	Agent entered invalid call work code			

Add
 Delete
 Find one
 Modify
 Next
 Previous

Figure 7-3: Agent Exceptions Administration Window (Contd)

Input Fields

Table 7-2 includes definitions for and directions on completing all fields on the Exceptions: Administration: Agent Exceptions input windows. See Figure 7-2 and Figure 7-3 for examples of the input windows.

CentreVu CMS checking for agent time exceptions begins when the exception has been triggered (that is, the threshold has been exceeded). The exception count is cleared when the agent leaves the state that triggered the exception. The exception count is also cleared when the agent logs out. Timed exceptions are tracked from the time an agent logs in until the agent logs out. These exceptions can trigger more than once within an interval.

Table 7-2: Agent Exceptions Administration Input Fields

Field	Definition
Split(s)/Skill(s):	Enter the split or skill number(s) or name(s) for which you want to set up or modify <i>CentreVu</i> CMS checking for exceptions.
Active (Required)	Enter y or n to turn each desired exception type on or 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 agent's ACD time exceeds or falls below the limit. The time you enter is in seconds, from 0 to 28800. This field requires an entry even if the Active field value is no.
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, then enter 0 in this field. This field requires an entry even if the Active field value is no.
Time Available	The time any agent spends in AVAIL (that is, idle). <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified of the exception. When the agent changes state, the exception is cleared and counting starts again.

Table 7-2: Agent Exceptions Administration Input Fields (Contd)

Field	Definition
Time on inbound ACD call (min)	The minimum time you want any agent on an 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. When the threshold is exceeded, you are notified. This exception can trigger more than once within an intrahour interval.
Time on inbound ACD call (max)	The maximum time you want any agent on an ACD call. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Time in after call work	The maximum time you want any agent in after call work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Time on inbound ACW call	The maximum time you want any agent to spend on an inbound call while in after call work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Number of inbound ACW calls/agent	The total number of inbound calls an agent can receive while in after call work. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.

Table 7-2: Agent Exceptions Administration Input Fields (Contd)

Field	Definition
Time on outbound ACW call	The maximum time you want any agent to spend on an outbound call while in after call work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Number of outbound ACW calls/agent	The total number of outbound calls an agent can make while in after call work. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.
Time in AUX work	The maximum time any agent can spend in auxiliary work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Time on inbound AUX call	The maximum time you want any agent to spend on an inbound call while in AUX (auxiliary) work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Number of inbound AUX calls/agent	The total number of inbound calls an agent can receive while in AUX (auxiliary) work. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.
Time on outbound AUX call	The maximum time you want any agent to spend on an outbound call while in AUX (auxiliary) work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.

Table 7-2: Agent Exceptions Administration Input Fields (Contd)

Field	Definition
Number of outbound AUX calls/agent	The total number of outbound calls an agent can place while in AUX (auxiliary) work. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.
Login identification	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 physical extension. 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. In the case with multiple splits or skills, no data is collected for the second or third ID. If you enter an n to turn off this exception, only checking 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.
Time on outbound ACD call (min) (Generic 1, Generic 3 only)	The minimum time you want any 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. When the threshold is exceeded, you are notified. This exception can trigger more than once within an intrahour interval.
Time on outbound ACD call (max) (Generic 1, Generic 3 only)	The maximum time you want any 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. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Number calls transferred	The total number of calls any agent can transfer. When the threshold is exceeded, you are notified. (With Generic 1, you are only notified if the agent transfers a call to a measured agent or a measured split or skill.) This exception cannot trigger more than once within an interval.

Table 7-2: Agent Exceptions Administration Input Fields (Contd)

Field	Definition
Time ACD call spent on hold (Generic 2, System 85 R2V4, Generic 3 only)	The maximum time 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. When the threshold is exceeded, you are notified. This exception can trigger more than once within an interval.
Number ACD calls placed on hold (Generic 2, System 85 R2V4, Generic 3 only)	The maximum number of ACD calls an agent can place on hold. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.
Number ACD calls abandoned while on hold (Generic 2, System 85 R2V4, Generic 3 only)	The maximum number of calls abandoned after being placed on hold by an agent. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.
Time ACD call spends ringing (Generic 2, System 85 R2V4, Generic 3 only)	The maximum time a split or skill or direct agent call can ring at an agent's telephone before an exception is pegged. <i>CentreVu</i> CMS checks the allowed ringing time before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception can trigger more than once within an intrahour interval.
Ringing call automatically redirected from agent (Generic 3 Versions 2 only)	The ACD call is requeued to the split or skill. This exception triggers if an agent lets an ACD call ring at the voice terminal and the switch attempts to requeue the call automatically to the split or skill. When this happens, the agent is automatically put into AUX work. There is no count associated with this exception, and you must have the Redirection on No Answer feature on the switch.
Time on direct agent call (Generic 3 only)	The maximum time (in seconds) you want an agent to spend on a direct agent call. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out, and this exception can trigger more than once within an intrahour interval.

Table 7-2: Agent Exceptions Administration Input Fields (Contd)

Field	Definition
Number calls in direct agent queue (Generic 3 only)	The maximum number of direct agent calls an agent can have waiting in queue. Each time the threshold is exceeded in the interval, you are notified. For example, if the threshold to trigger an exception for the agent is “3” and the number of calls in queue exceeded “3” at five different times during the interval, you are notified five different times of the exception.
Time call waited in direct agent queue (Generic 3 only)	The maximum time 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. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Number calls abandoned from direct agent queue (Generic 3 only)	The maximum number of direct agent calls that can abandon from the direct agent queue. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.
Number calls outflowed from direct agent queue (Generic 3 only)	The maximum number of direct agent calls that outflowed from the direct agent queue. When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.
Time on external outbound ACW call (Generic 3, Generic 2.2 only)	The maximum time (in seconds) you want an agent to spend on an external outbound call while in after call work (ACW). <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Number of external outbound ACW calls/agent (Generic 3, Generic 2.2 only)	The maximum number of external outbound calls that an agent can make while in after call work (ACW). When the threshold is exceeded, you are notified. This exception cannot trigger more than once within an interval.

Table 7-2: Agent Exceptions Administration Input Fields (Contd)

Field	Definition
Time on external outbound AUX call (Generic 3, Generic 2.2 only)	The maximum time (in seconds) you want an agent to spend on an external outbound call while in AUX (auxiliary) work. <i>CentreVu</i> CMS checks the allowed time limit for the agent before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified. This exception remains active until the agent changes to another state or logs out. This exception can trigger more than once within an intrahour interval.
Number external outbound AUX calls/agent (Generic 3, Generic 2.2 only)	The maximum number of external outbound calls that an agent can make while in AUX (auxiliary) work. When the threshold is exceeded, you are notified. 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 he logged out of <i>CentreVu</i> CMS. 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 CWC, an exception is pegged for CWC "0." If you are collecting invalid CWCs in call records only, this exception should be off (n).
Agent could not be logged in	This exception is not on the administration window. It is always turned on. If an agent cannot login to a split/skill, the exception Could not be logged in appears on the historical Agent Exceptions 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 sections in this chapter listed below also apply to Split/Skill Exception Administration:
 - "General Rules for Administering Exceptions"
 - "User Permissions for Exceptions" for read/write information
 - "Relationships to Other Subsystems".

Input Window

You must complete the Split/Skill Exceptions window (Figure 7-4) to set up and turn on *CentreVu* CMS checking for split or skill exceptions. See Table 7-3 for descriptions of the fields on the Exceptions: Administration: Split/Skill Exceptions input window.

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CentreVu(TM) CMS
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Exceptions: Administration: Split/Skill Exceptions
acd1

Split(s)/Skill(s): _____

Active	Time Limit	Thres- hold	Exception Type
<u>n</u>	<u>20</u>	<u>2</u>	Time call has waited in queue
<u>n</u>		<u>3</u>	Number calls waiting in queue
<u>n</u>		<u>2</u>	Number calls abandoned
<u>n</u>	<u>20</u>	<u>0</u>	Average speed of answer (seconds)
<u>n</u>		<u>0</u>	Number intraflowed-out calls
<u>n</u>		<u>0</u>	Number intraflowed-in calls
<u>n</u>		<u>0</u>	Number interflowed-out calls
<u>n</u>		<u>2</u>	Number calls handled as backup
<u>n</u>		<u>0</u>	Number calls transferred
<u>n</u>		<u>1</u>	Number calls offered while queue full
<u>n</u>	<u>10</u>	<u>1</u>	Expected Wait Time (pri Top) exceeds threshold
<u>n</u>	<u>20</u>	<u>2</u>	Expected Wait Time (pri High) exceeds threshold
<u>n</u>	<u>40</u>	<u>4</u>	Expected Wait Time (pri Medium) exceeds threshold
<u>n</u>	<u>50</u>	<u>4</u>	Expected Wait Time (pri Low) exceeds threshold
<u>n</u>	<u>30</u>	<u>4</u>	Rolling Average Speed of answer (seconds)

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Find one
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Figure 7-4: Split/Skill Exception Administration Window

Input Fields

Table 7-3 includes definitions for and directions on completing all fields on the Exceptions: Administration: Split/Skill Exceptions input window. See Figure 7-4 for an example of the input window.

Table 7-3: Split/Skill Exceptions Administration Input Fields

Field	Definition
Split(s)/Skill(s):	Enter the split or skill number(s) or name(s) for which you want to set up or modify <i>CentreVu</i> CMS checking for exceptions.
Active (Required)	Enter y or n to turn each desired exception type on or 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 agent's ACD time exceeds or falls below the limit. The time you enter is in seconds, from 0 to 28800. This field requires an entry even if the Active field value is no.
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, then enter 0 in this field. This field requires an entry even if the Active field value is no.
Time call has waited in queue	The total acceptable time any call in queue can wait to be answered before an occurrence is counted against the threshold limit (your acceptable time). 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 total number of calls that you want waiting in queue at any one time. Since this condition can come and go, each time the number of waiting calls exceeds your threshold, you are notified. For example, if the threshold to trigger an exception for the split or skill is "5" and the number of calls in queue exceeded "5" at two different times during the interval, you are notified two different times of the exception.

Table 7-3: Split/Skill Exceptions Administration Input Fields (Contd)

Field	Definition
Number calls abandoned	The total number of acceptable abandoned calls. When the number of abandoned calls exceeds the threshold, you are notified. This exception cannot trigger more than once within an interval.
Average speed of answer (seconds)	The average speed of call answering. When the average speed of answer for the split or skill is longer than the limit administered, an occurrence is counted against the threshold limit. The average is computed at the end of each call. If the average speed of answer is greater than the administered limit, an occurrence is counted against the threshold. When the number of occurrences exceeds the average speed of answer threshold, you are notified. 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. When the number of intraflowed-out calls exceeds the threshold, you are notified. This exception cannot trigger more than once within an interval.
Number intraflowed-in calls	The acceptable number of calls that can intraflow in to the split or skill before an occurrence is counted against the threshold limit (your acceptable number). When the number of intraflowed-in calls exceeds your threshold, you are notified. 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, System 85 R2V4, and Generic 2 with vectoring 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 (System 85 R2V4, Generic 2.1 with vectoring, Generic 2.2, and Generic 3 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.

Table 7-3: Split/Skill Exceptions Administration Input Fields (Contd)

Field	Definition
Number calls offered while queue full (Generic 1 and Generic 3 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.
Expected Wait Time (priority Top) exceeds threshold (Generic 3 Version 4 or later)	The EWT for incoming calls with the highest priority. This exception is triggered only once per interval, when the time limit is exceeded the number of times specified in the threshold. The exception is cleared when the interval ends. EWT is an estimate of how long a caller will have to wait in queue before connecting to an agent. It is a switch-based calculation that is based on current and past traffic, handling time, and staffing conditions. When the exception is activated and the specified threshold is exceeded, an entry is made in the Split/Skill Exceptions Historical Report.
Expected Wait Time (priority High) exceeds threshold (Generic 3 Version 4 or later)	The EWT for incoming calls with the second highest priority. This exception is triggered only once per interval, when the time limit is exceeded the number of times specified in the threshold. The exception is cleared when the interval ends. EWT is an estimate of how long a caller will have to wait in queue before connecting to an agent. It is a switch-based calculation that is based on current and past traffic, handling time, and staffing conditions. When the exception is activated and the specified threshold is exceeded, an entry is made in the Split/Skill Exceptions Historical Report.
Expected Wait Time (priority Medium) exceeds threshold (Generic 3 Version 4 or later)	The EWT for incoming calls with the third highest priority. This exception is triggered only once per interval, when the time limit is exceeded the number of times specified in the threshold. The exception is cleared when the interval ends. EWT is an estimate of how long a caller will have to wait in queue before connecting to an agent. It is a switch-based calculation that is based on current and past traffic, handling time, and staffing conditions. When the exception is activated and the specified threshold is exceeded, an entry is made in the Split/Skill Exceptions Historical Report.

Table 7-3: Split/Skill Exceptions Administration Input Fields (Contd)

Field	Definition
Expected Wait Time (priority Low) exceeds threshold (Generic 3 Version 4 or later)	The EWT for incoming calls with the lowest priority. This exception is triggered only once per interval, when the time limit is exceeded the number of times specified in the threshold. The exception is cleared when the interval ends. EWT is an estimate of how long a caller will have to wait in queue before connecting to an agent. It is a switch-based calculation that is based on current and past traffic, handling time, and staffing conditions. When the exception is activated and the specified threshold is exceeded, an entry is made in the Split/Skill Exceptions Historical Report.
Rolling Average speed of answer (seconds) (Generic 3 Version 4 or later)	The average speed of answer as sent to <i>CentreVu</i> CMS via the ASA message from the switch. When <i>CentreVu</i> CMS receives, for a split or skill, an ASA that exceeds the time limit specified, an occurrence is pegged. When the threshold is exceeded, an exception is generated. This type of exception will be triggered only once per interval and is cleared at the end of the interval.

Trunk/Trunk Group Exceptions

Use the Trunk Group Exceptions Administration window to define exceptions and turn on *CentreVu* CMS checking for trunk/trunk group exceptions.

Things to Know Before You Start

- All standard procedures and common rules apply. See Chapter 2, "User Basics."
- The sections in this chapter listed below also apply to Trunk Group Exceptions Administration:
 - "General Rules for Administering Exceptions"
 - "User Permissions for Exceptions" for read/write information
 - "Relationships to Other Subsystems".
- The Audio Difficulty exception is always provided for all switches that support stroke counts.

Input Window

To define and turn on *CentreVu* CMS checking for trunk group exceptions, you must complete the Trunk Group Exceptions window (Figure 7-5). See Table 7-4 for descriptions of the fields on the Exceptions: Administration: Trunk Group Exceptions input window.

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Exceptions: Administration: Trunk Group Exceptions acd1

Trunk group(s): _____

Active	Time Limit	Thres-hold	Exception Type
<u>n</u>	<u>1</u>	<u>9</u>	Time trunk in use (min)
<u>n</u>	<u>1800</u>	<u>2</u>	Time trunk in use (max)
<u>n</u>	<u>0</u>	<u>0</u>	Time any trunk maintenance busy
<u>n</u>	<u>0</u>	<u>0</u>	Length of time all trunks busy
<u>n</u>		<u>4</u>	Number trunk failures in group
<u>n</u>		<u>200</u>	Number of trunks in use
<u>n</u>		<u>4</u>	Number of trunks maintenance busy
<u>n</u>		<u>2</u>	Number of failures on a single trunk

Add
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 Find one
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Figure 7-5: Trunk Group Exceptions Administration Window

Input Fields

Table 7-4 includes definitions for and directions on completing all fields on the Exceptions: Administration: Trunk Group Exceptions input window. See Figure 7-5 for an example of the input window.

Table 7-4: Trunk Group Exceptions Administration Input Fields

Field	Definition
Trunk group(s):	Enter the trunk group number(s) or name(s) for which you want to set up or modify <i>CentreVu</i> CMS checking for trunk group exceptions.
Active (Required)	Enter y or n to turn each desired exception type on or 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 agent's ACD time exceeds or falls below the limit. The time you enter is in seconds, from 0 to 28800. This field requires an entry even if the Active field value is no.
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, then enter 0 in this field. This field requires an entry even if the Active field value is no.
Time trunk in use (min) (Exceptions per trunk)	The minimum acceptable time 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. 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.
Time trunk in use (max) (Exceptions per trunk)	The maximum acceptable time 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. 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.

Table 7-4: Trunk Group Exceptions Administration Input Fields (Contd)

Field	Definition
Time any trunk maintenance busy (Exceptions per trunk)	The maximum time 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 all trunks can be busy in the trunk group without counting as an occurrence. When the threshold is exceeded, you receive an exception notification. This exception cannot trigger more than once within an interval.
Number of trunk failures in group (Exceptions per trunk group)	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 your 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)	The maximum acceptable number of failures 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.

VDN Exceptions

Note If you do not have the Vectoring feature, the VDN Exceptions Administration window is not available.

Use the VDN Exceptions Administration window (Figure 7-7) to define exceptions and turn on *CentreVu* CMS checking for VDN exceptions.

Things to Know Before You Start

- On Generic 2.2 and Generic 3, 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 “User Permissions for Exceptions” earlier in this chapter for the read/write information.

Input Window

To define and turn on *CentreVu* CMS checking for VDN exceptions, you must complete the VDN Exceptions window (Figure 7-6). See Table 7-5 for descriptions of the fields on the Exceptions: Administration: VDN Exceptions input window.

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Exceptions: Administration: VDN Exceptions			acd1
VDN(s):TG45 to 47 _____			
Active	Time Limit	Thres- hold	Exception Type
<u>y</u>	<u>50</u>	<u>3</u>	Time in vector (max)
<u>n</u>	<u>30</u>	<u>4</u>	Time at agent (min)
<u>n</u>	<u>15</u>	<u>3</u>	Time at agent (max)
<u>n</u>		<u>3</u>	Number calls abandoned while in vector
<u>n</u>		<u>1</u>	Number calls forced busy
<u>y</u>		<u>3</u>	Number calls disconnected
<u>n</u>		<u>3</u>	Number calls in an ACD split queue
<u>y</u>		<u>7</u>	Number calls that flowed into VDN
<u>n</u>		<u>7</u>	Number calls that flowed out of VDN
<u>n</u>		<u>7</u>	Number calls interflowed out of VDN
<u>n</u>		<u>3</u>	Number calls handled by backup split
<u>n</u>		<u>10</u>	Number unsuccessful lookahead interflow attempts
<u>n</u>		<u>8</u>	Number unsuccessful adjunct routing attempts
<u>n</u>	<u>30</u>	<u>3</u>	Rolling Average Speed of Answer (seconds)

Add
 Delete
 Find one
 Modify
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Figure 7-6: VDN Exceptions Administration Window

Input Fields

Table 7-5 includes definitions for and directions on completing all fields on the Exceptions: Administration: VDN Exceptions input window. See Figure 7-6 for an example of the input 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, or sent to an external destination. The call remains connected to the VDN if the call routes (via the “go to vector” step) to another vector or the call is sent (via a “route to” or “adjunct routing” step) to an extension internal to the local switch.

Table 7-5: VDN Exceptions Administration Input Fields

Field	Definition
VDN(s) :	Enter the VDN number(s) or name(s) for which you want to set up or modify checking for VDN exceptions.
Active (Required)	Enter y or n to turn each desired exception type on or 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 agent's ACD time exceeds or falls below the limit. The time you enter is in seconds, from 0 to 28800. This field requires an entry even if the Active field value is no.
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, then enter 0 in this field. This field requires an entry even if the Active field value is no.
Time in vector (max)	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)	The length of time a call is connected to an agent (while still connected to 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 7-5: VDN Exceptions Administration Input Fields (Contd)

Field	Definition
Time at agent (max)	The length of time that a call is connected to an agent (while still connected to the VDN). 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	The calls that are abandoned while in a split/skill, ringing, or routed to other vectors in the ACD. 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	The number of calls that received a forced busy during vector processing. An occurrence is counted against the threshold each time a call is given a busy signal by the switch (see Busy command). Included in the count are calls that received a forced busy after they routed to other vectors (via a “go to vector” step) in the ACD. This exception cannot trigger more than once within an interval.
Number calls disconnected	The calls that disconnected after they routed to other vectors (by way of a “go to vector” step) in the ACD, and calls disconnected via the vector disconnect timer or because the calls reached the end of vector processing without being queued. An occurrence is counted against the threshold each time a call is automatically disconnected from the switch (see Disconnect command). Not included are calls that disconnected after receiving a busy signal (via the Busy command). This exception cannot trigger more than once within an interval.
Number calls in an ACD split/skill queue	The total number of calls in queue for all main and backup splits or skills. An occurrence is counted when this number exceeds the threshold. Included are calls that queued to a split after they routed to other vectors (via a “go to vector” step) in the ACD. Since this condition can come and go, you receive an exception each time the threshold is exceeded.

Table 7-5: VDN Exceptions Administration Input Fields (Contd)

Field	Definition
Number calls that flowed into VDN	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 via a “route to” step from a vector in the local ACD. 2. The call was transferred to the VDN from a local split or skill extension using the Transfer button. 3. The call was routed to the VDN via adjunct routing. Not included in the count are calls that connected to the VDN because of Look Ahead Interflow or normal interflow (where the call was sent from another switch).
Number calls that flowed out of VDN	The release and 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 released from the VDN and routed to an external destination or another VDN. This exception cannot trigger more than once within an interval.
Number calls interflowed out of VDN	The release and routing of a call from the VDN to an outside destination. An occurrence is counted against the threshold each time a call is released from the VDN and routed to another destination outside of the local switch. This exception cannot trigger more than once within an interval.
Number calls handled by backup split or skill	The number of calls connected to an agent in a backup split or skill referenced by a “backup split or skill,” “messaging split or skill,” or “route to” step in the VDN's vector. An occurrence is counted against the threshold each time a call is connected due to one of these steps. This exception cannot trigger more than once within an interval.
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.

Table 7-5: VDN Exceptions Administration Input Fields (Contd)

Field	Definition
Number unsuccessful adjunct routing attempts	The adjunct host computer does not take routing control of the call. An occurrence is counted against the threshold each time an “adjunct routing” step fails—that is, the adjunct host computer does not take routing control of the call. 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)	The switch sends the rolling average speed of answer for the measured VDN to <i>CentreVu</i> CMS via the ASA message. When <i>CentreVu</i> CMS receives, for a VDN, an ASA that exceeds the time limit specified, an occurrence is pegged. When the threshold is reached, an exception is generated. The rolling ASA for the VDN is switch-based and is only triggered once per interval, and then cleared at the end of the interval.

Vector Exceptions

Note If you have not purchased the Vectoring feature, the Vector Exceptions Administration window is not available.

Use the Vector Exceptions Administration window (Figure 7-7) to define exceptions and turn on *CentreVu* CMS checking for vector exceptions.

Things to Know Before You Start

- On Generic 3, calls may generate some exceptions for a vector even after the vector, via an adjunct routing command, has given routing control to the adjunct. These exceptions may occur because, even with adjunct routing, a call is connected to the vector until an agent answers, the caller abandons, or the call is routed to another vector, another VDN, or 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 "User Permissions for Exceptions" earlier in this chapter for the read/write information.

Input Window

To define and turn on checking for vector exceptions, you must complete the Vector Exceptions window (Figure 7-7). See Table 7-6 for descriptions of the fields on the Exceptions: Administration: Vector Exceptions input window.

04/20/95 12:30 PM CentreVu(TM) CMS Window: 1 of 6 ^

Exceptions: Administration: Vector Exceptions acd1

Vectors(s): 20;30;40;50;mega5890_____

Add
Delete
Find one
Modify
Next
Previous

Active	Time Limit	Thres- hold	Exception Type
<u>y</u>	<u>30</u>	<u>0</u>	Time in vector (max)
<u>y</u>		<u>10</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>y</u>		<u>15</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 7-7: Vector Exceptions Administration Window

Input Fields

Table 7-6 includes definitions for and directions on completing all fields on the Exceptions: Administration: Vector Exceptions input window. See Figure 7-7 for an example of the input window.

CentreVu CMS checking for vector exceptions begins when a call enters the vector and ends when the call connects to an agent or is routed to another destination.

Table 7-6: Vector Exceptions Administration Input Fields

Field	Definition
Vector(s) :	Enter the vector number(s) or name(s) for which you want to set up or modify checking for vector exceptions.
Active (Required)	Enter y or n to turn each desired exception type on or 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 agent's ACD time exceeds or falls below the limit. The time you enter is in seconds, from 0 to 28800. This field requires an entry even if the Active field value is no.
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, then enter 0 in this field. This field requires an entry even if the Active field value is no.
Time in vector (max)	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	The number of calls 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.

Table 7-6: Vector Exceptions Administration Input Fields (Contd)

Field	Definition
Number calls forced busy	The number of calls given a busy signal via the switch Busy command during vector processing. 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	The number of calls disconnected via the switch Disconnect command, the vector disconnect time, or because the call reached the end of vector processing without being queued (Generic 3 Version 2 only). 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	The total number of calls in queue for the vector's main and backup splits or skills. An occurrence is logged when this number exceeds the occurrence threshold. Since this condition can come and go, you receive an exception each time the threshold is exceeded.
Number unsuccessful lookahead interflow attempts	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	The adjunct host computer does not take routing control of the call. An occurrence is counted against the threshold each time an "adjunct routing" step fails. 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.

Real-Time Exceptions Log

When first viewed, the Real-Time Exceptions Log (Figure 7-8) 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 Exceptions 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 it adds the new exception record.

The log simultaneously displays exception records for all elements on 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 VDNs, only vectors, etc. However, you see only exception records on specific ACD elements (such as splits or skills) for which you have exception permissions.

04/20/95 12:30 PM	CentreVu(TM) CMS	EX	Window: 1 of 6 ^
Exceptions: Real-Time Exception Log			All ACDs
5/27 11:52AM	ACD Denver Agent John Smith in split/skill Sales entered invalid call work code 1234.		
5/27 11:53AM	ACD Denver Split/Skill Sales: more than 5 calls are queued at top priority with an expected wait of more than 30 secs.		
5/27 11:53AM	ACD Denver Split/Skill Sales; The rolling average speed of answer is over 40 secs for more than 10 calls.		
5/27 11:54AM	ACD Denver Catalog: the rolling average speed of answer is over 30 secs for more than 10 calls.		
5/27 11:55AM	ACD Denver: Agent Janet Schmidt could not be logged into skill 3.		
5/27 12:03PM	ACD 123: Agent 4567 entered an invalid call work code.		
5/27 12:11PM	ACD 123: The exp wait time at top priority for split/skill 23 exceeded 20 secs. for more than 5 calls		
5/27 12:16PM	ACD 123 Split/Skill 24: The rolling average speed of answer is over 20 secs for mmore than 5 calls.		
5/27 12:22PM	ACD 123: Agent 4555 could not be logged into skill 23.		

Figure 7-8: Real-Time Exceptions Log

How to Use the Real-Time Exceptions Log

You can use the Real-Time Exceptions 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 Exceptions Log gives you the following information:

- The date and time the exception occurred.
- The ACD (ACD name) for which the exception occurred.
- The specific ACD element (a specific agent, split, skill, VDN, etc.) that was involved in the exception. If you have defined names in the Dictionary subsystem, names display (names may be truncated). Otherwise, numeric identifiers display.
- 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

Introduction

Exceptions 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.

Exceptions Historical Reports Menu

Figure 7-9 illustrates the Historical Reports Exceptions submenu.

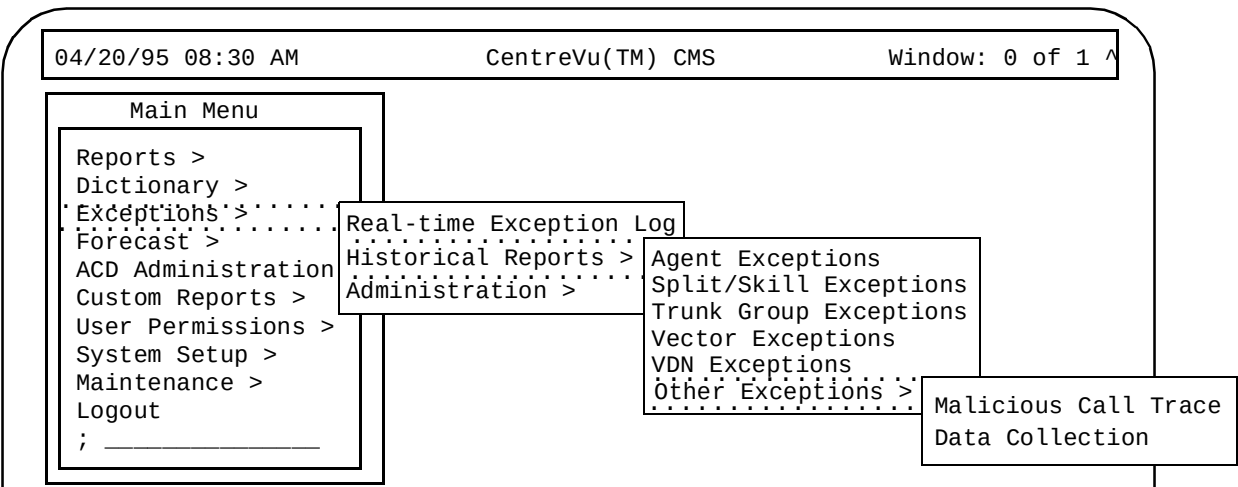


Figure 7-9: Historical Report Exceptions Submenus

How This Section is Organized

This section gives a brief description of each available historical exceptions report, examples of the 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 R3V4 Reports* (AT&T 585-215-801) document.

Immediately following this introduction are:

- **Things to Know About All Exceptions Historical Reports** — gives you information about things that can affect the information in historical exceptions reports and the types of reports available to you.
- **Prerequisite System Administration** — lists system administration that must be performed prior to using the Historical Reports part of the Exceptions subsystem.
- **Relationships to Other Subsystems** — lists how the real-time Reports subsystem interacts with other *CentreVu* CMS subsystems.

The reports included in this section are:

- Agent Exceptions Historical Report
- Split/Skill Exceptions Historical Report
- Trunk Group Exceptions Historical Report
- VDN Exceptions Historical Report
- Vector Historical Exceptions Report
- Malicious Call Trace Exceptions Historical Report
- Data Collection Historical Report.

Each reports section has the following headings:

- **Input Window(s)**—if a series of reports have similar input windows, the example is shown only at the beginning of the section. If a series of reports (graph reports specifically) have input windows that are specific to each report, the input window is shown with the report description.
- **Input Fields**—if a series of reports have similar input fields, the field definitions are listed only at the beginning of the section. If a series of reports (graph reports specifically) have input windows that are specific to each report, the field definitions are shown with the report description.
- **Prerequisite System Administration** — included only if a report has specific administration that must be performed in order to run successfully.
- **Relationships to Other Subsystems** — included only if a report has specific relationships that do not apply to the majority of real-time reports.

Things to Know About All Exceptions Historical Reports

The number of days in the past for which you can get exceptions is determined by two things:

- The number of exception records allocated for storage on the System Setup: Data Storage Allocation window. The maximum number of each type of exception records you can store is 2000.
 - The frequency with which exceptions are recorded each day. If you allocate storage for 1000 exception records, and about 100 exceptions occur each day, you will be able to save exception reports for approximately the last 10 days.
 - The Audio Difficulty exception (Trunk Group Exceptions Historical Report) is always provided for all switches that support stroke counts.
-

Prerequisite System Administration

The following system administration tasks need to be completed before running exceptions historical reports.

Dictionary

If you want names to appear on split/skill, trunk group, agent, VDN, and 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 split/skill, trunk group, ACD, vector, or VDN. For example, if you have read permission for Splits 1, 2, and 4, and try to run a report on Splits 1, 4, and 5, you receive data for Splits 1 and 4 but not for Split 5, because you do not have read permission for that split. See Chapter 9, "User Permissions," for more information.

Relationships to Other Subsystems

Exceptions historical reports interact, as stated below, with the following subsystems.

Timetable and Shortcut

You can place any exceptions historical report on a timetable. If your report fails to run on a timetable, an error is logged in the Customer Error Log (see Maintenance: Error Log Report). A message is not sent to the Error Log if the report runs successfully. The Timetable List All window also shows the status (successful or failed) of a timetable's last run.

You can place any historical report on a shortcut.

See Chapter 5, "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 Agent Exceptions Administration window) must be turned on (active) for the time period of the report, **and** exceptions must have occurred for the active exception types.

Input Window

You must complete the Agent Exceptions Input window (Figure 7-10) to order a historical Agent Exceptions Report. See Table 7-7 for descriptions of the fields on the Exceptions: Historical Reports: Agent Exceptions input window.

04/20/95 12:30 PM CentreVu(TM) CMS Window: 1 of 6 ^

Exceptions: Historical Reports: Agent Exceptions Input acd1

Run

Date: _____

Split/Skill: _____

Agent(s): _____

Order by (Select one):

<x> Time

< > Agent

Exceptions (Select any you wish):

[x] Time available

[x] Time on inbound ACD call (min)

.

.

.

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 7-10: Agent Exceptions Input Window

Input Fields

Table 7-7 includes definitions for and directions on completing all fields on the Exceptions: Historical Reports: Agent Exceptions input window. See Figure 7-10 for an example of the input window.

Table 7-7: Historical Reports Agent Exceptions Input Fields

Field	Definition
Date: (Required)	Enter the date for which you want the report. Enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.
Split/Skill: (Required)	Enter the split or skill number or name for which you want a report.
Agent(s):	Enter the agent name(s) for which you want a report.
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 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 and then press Return. 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 of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

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.

Input Window

You must complete the Split/Skill Exceptions Input window (Figure 7-11) to order a historical Split/Skill Exceptions Report. See Table 7-8 for descriptions of the fields on the Exceptions: Historical Reports: Split/Skill Exceptions input window.

04/20/95 12:30 PM CentreVu(TM) CMS Window: 1 of 6 ^

Exceptions: Historical Reports: Split/Skill Exceptions Input acd1 Run

Date: _____

Split(s)/Skill(s): _____

Agent(s): _____

Order by (Select one):

<x> Time

< > Agent

Exceptions (Select any you wish):

☒ Time call has waited in queue

☒ Number calls waiting

.

.

.

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 7-11: Split/Skill Exceptions Input Window

Input Fields

Table 7-8 includes definitions for and directions on completing all fields on the Exceptions: Historical Reports: Split/Skill Exceptions input window. See Figure 7-11 for an example of the input window.

Table 7-8: Historical Reports Split/Skill Exceptions Input Fields

Field	Definition
Date: (Required)	Enter the date for which you want the report. Enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.
Split(s)/Skill(s):	Enter the Split/Skill name(s) or number(s) 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.
Agent(s):	Enter the agent name(s) for which you want a report.
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 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 and then press Return. 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 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 Trunk Group Exceptions Administration window) must have been turned on (active) for the time period of the report, **and** exceptions must have occurred for the active exception types.

Input Window

You must complete the Trunk Group Exceptions Input window (Figure 7-12) to order a historical Trunk Group Exceptions Report. See Table 7-9 for descriptions of the fields on the Exceptions: Historical Reports: Trunk Group Exceptions input window.

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Exceptions: Historical Reports: Trunk Group Exceptions Input acd1

Date: _____ Run

Trunk group(s): _____

Order by (Select one):

<x> Time

< > Trunk group

< > Trunk location

Exceptions (Select any you wish):

[x] Time trunk in use (min)

[x] Time trunk in use (max)

.

.

.

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 7-12: Trunk Group Input Window

Input Fields

Table 7-9 includes definitions for and directions on completing all fields on the Exceptions: Historical Reports: Trunk Group Exceptions input window. See Figure 7-12 for an example of the input window.

Table 7-9: Historical Reports Trunk Group Exceptions Input Fields

Field	Definition
Date: (Required)	Enter the date for which you want the report. Enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.
Split(s)/Skill(s):	Enter the Split/Skill name(s) or number(s) 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.
Agent(s):	Enter the agent name(s) for which you want a report.
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 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 and then press Return. 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 Historical Report

Note

If you do not have the Vectoring feature, the VDN Exceptions Historical report is **not** available.

The VDN Exceptions Historical Report shows exceptions that have occurred in the past for the VDN(s) 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 VDN Exceptions Administration window) must have been turned on for the time period of the report, **and** exceptions must have occurred for the active exception types.

Input Window

You must complete the VDN Exceptions Input window (Figure 7-13) to order a historical VDN Exceptions Report. See Table 7-10 for descriptions of the fields on the Exceptions: Historical Reports: VDN Exceptions input window.

04/20/95 12:30 PM CentreVu(TM) CMS Window: 1 of 6 ^

Exceptions: Historical Reports: VDN Exceptions Input acd1

Date: _____

VDN(s): 2050-2055;sales-west;3044_____

Agent(s): _____

Order by (Select one):

<x> Time

< > VDN

< > Vector

Exceptions (Select any you wish):

[x] Time in vector (max)

[x] Time at agent (min)

.

.

.

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Run

Figure 7-13: VDN Exceptions Input Window

Input Fields

Table 7-10 includes definitions for and directions on completing all fields on the Exceptions: Historical Reports: VDN Exceptions input window. See Figure 7-13 for an example of the input window.

Table 7-10: Historical Reports VDN Exceptions Input Fields

Field	Definition
Date: (Required)	Enter the date for which you want the report. Enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.
VDN(s):	Enter the VDN number(s) or name(s) for which you want a report. If you want a report for all available VDNs, leave this field blank.
Agent(s):	Enter the agent name(s) for which you want a report.
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 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 and then press Return. 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 Historical Exceptions Report

Note If you have not purchased the Vectoring feature, the Vector Exceptions Historical report is **not** available.

The Vector Exceptions Historical Report shows exceptions that have occurred in the past for the vector(s) 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 Vector Exceptions Administration window) must have been turned on for the time period of the report, **and** exceptions must have occurred for the active exception types.

Input Window

You must complete the Vector Exceptions Input window (Figure 7-14) to order a historical Vector Exceptions Report. See Table 7-11 for descriptions of the fields on the Exceptions: Historical Reports: Vector Exceptions input window.

04/20/95 12:30 PM		CentreVu(TM) CMS		Windows: 1 of 6 ^	
Exceptions: Historical Reports: Vector Exceptions Input					acd1
Date: _____					Run
Vectors: debitcard-west _____					
Agent(s): _____					
Order by (Select one):					
<x> Time					
< > Vector					
Exceptions (Select any you wish):					
☒ Time in vector (max)					
☒ Number calls abandoned while in vector					
.					
.					
.					
Report destination (Select one):					
<x> Terminal					
< > Printer, Printer name _____					
< > File,					
File name: _____					

Figure 7-14: Vector Exceptions Input Window

Input Fields

Table 7-11 includes definitions for and directions on completing all fields on the Exceptions: Historical Reports: Vector Exceptions input window. See Figure 7-14 for an example of the input window.

Table 7-11: Historical Reports Vector Exceptions Input Fields

Field	Definition
Date: (Required)	Enter the date for which you want the report. Enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.
Vectors:	Enter the vector number(s) or name(s) for which you want a report. If you want a report for all available vectors, leave this field blank.
Agent(s):	Enter the agent name(s) for which you want a report.
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 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 and then press Return. 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 Exceptions Historical Report

The Malicious Call Trace Historical Report gives you specific information on malicious call occurrences. For each malicious call, the report shows the date and time the call occurred, the agent and split or skill that received the call, and where the call originated from [if you have the Automatic Number Identification/Station Number Identification (ANI/SID) network feature with a Generic 2 switch and Generic 3r and Generic 3 Version 2 switches].

Prerequisite System Administration

- You must have exception permission for the appropriate split or skill to be notified of a malicious call exception.

Input Window

You must complete the Malicious Call Trace Input window (Figure 7-15) to order a historical report on malicious call occurrences. See Table 7-12 for descriptions of the fields on the Exceptions: Historical Reports: Malicious Call Trace input window.

The screenshot shows a web application window titled "CentreVu(TM) CMS" with a timestamp of "04/20/95 12:30 PM" and "Windows: 1 of 6 ^". The main content area is titled "Exceptions: Historical Reports: Malicious Call Trace Input" and includes a user identifier "acd1". The form contains the following fields and options:

- Date:** A text field with the value "04/12/95-04/16/95".
- Run:** A button located to the right of the date field.
- Report destination (Select one):** A dropdown menu with the following options:
 - <x> Terminal
 - < > Printer, Printer name _____
 - < > File,
File name: _____

Figure 7-15: Malicious Call Trace Input Window

Input Fields

Table 7-12 includes definitions for and directions on completing all fields on the Exceptions: Historical Reports: Malicious Call Trace input window. See Figure 7-15 for an example of the input window.

Table 7-12: Historical Reports Malicious Call Trace Exceptions Input Fields

Field	Definition
Date: (Required)	Enter the date for which you want the report. Enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.
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. 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 Historical Report

The Data Collection Historical Report shows any event that affects data collection, including 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.

Input Window

You must complete the Data Collection Input window (Figure 7-16) to order a historical Data Collection Exceptions Report. See Table 7-13 for descriptions of the fields on the Exceptions: Historical Reports: Data Collection input window.

The screenshot shows a window titled "Exceptions: Historical Reports: Data Collection Input" with a sub-header "acd1". The window contains the following fields and options:

- Date: 04/12/95-04/16/95
- Report destination (Select one):
 - <x> Terminal
 - < > Printer, Printer name _____
 - < > File,
 - File name: _____
- Run button

Figure 7-16: Data Collection Input Window

Input Fields

Table 7-13 includes definitions for and directions on completing all fields on the Exceptions: Historical Reports: Data Collection input window. See Figure 7-16 for an example of the input window.

Table 7-13: Historical Reports Data Collection Exceptions Input Fields

Field	Definition
Date: (Required)	Enter the date for which you want the report. Enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.
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. 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.

General Information

Audience

Chapter 8 is written for the *CentreVu™* Call Management System (*CentreVu CMS*) administrator and users who administer or need information about the automatic call distribution (ACD), Call Vectoring, and Expert Agent Selection (EAS) features on the switch.

Introduction

From the ACD Administration subsystem (Figure 8-1), you can do the following:

- Set a maximum acceptable service level for calls.
- Start an agent trace and list agents being traced.
- Run a report that lists extensions that are members of a specific split, which trunk groups point to which VDNs, and which VDNs point to which vectors.
- Run a report that lists trunk-group members and their equipment locations.
- View trunk group assignments.
- Move extensions between splits.

For Generic 2 and System 85, you can also do the following:

- 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 can also do the following:

- Change trunk group-to-VDN assignments (System 85/Generic 2 only).
- Define vectors.
- Run a report that lists, by vector, the trunk groups and VDNs that direct calls to vectors.
- Run a report that lists, by split, the vectors that queue calls to splits (System 85/Generic 2 only).
- 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.

If you have the EAS feature, you can also do the following:

- Move agent extensions between skill groups (Generic 2.2).
- Change an agent's assigned skills (Generic 3 Version 2 or later).
- Change one assigned skill for up to 32 agents while the agents remain staffed (Generic 3 Version 4).
- Change VDN skill preferences.

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 on the switch. All ACD Administration menu items are described in this chapter.

Figure 8-1 shows the ACD Administration menu for switches with the Call Vectoring feature.

Note

For switches that do not have the Call Vectoring feature, the VDN and Vector menu items do **not** appear.

For switches with the Call Vectoring or Expert Agent Selection (EAS) features, the Split Parameters menu item does **not** appear.

For Generic 3 switches, the Split References in Vectors menu item does **not** appear.

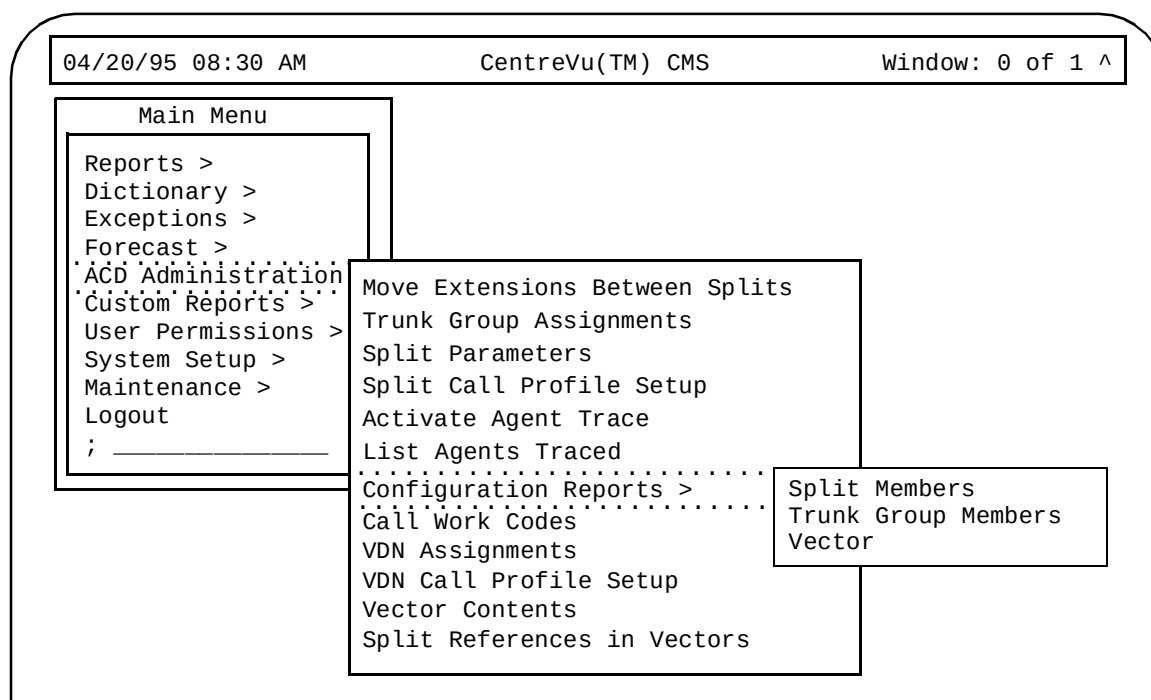


Figure 8-1: ACD Administration Menu — Switches with ACD and Call Vectoring

ACD Administration Menus with EAS

For Generic 2.2 and Generic 3 Version 2 or later switches with EAS, the ACD Administration menu looks different. Figure 8-2 shows the ACD Administration menu for Generic 2.2 switches with EAS.

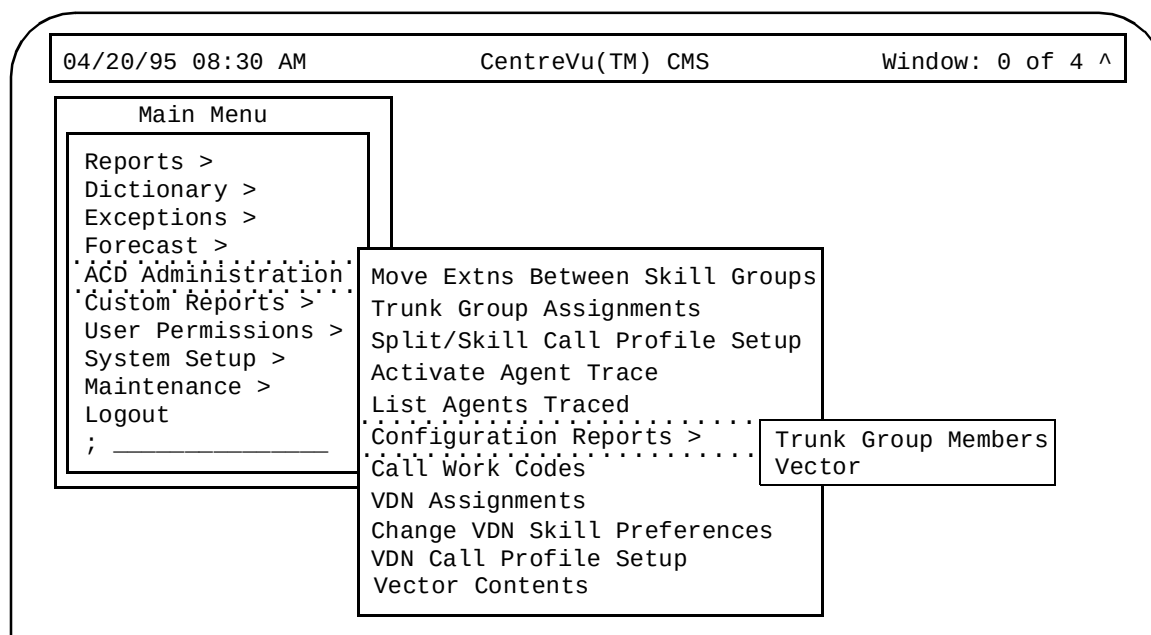


Figure 8-2: ACD Administration Menu — Generic 2.2 with EAS

Figure 8-3 shows the ACD Administration menu for Generic 3 Version 2 or later switches with EAS. For these switches, the item “Change Agent Skills” replaces the item “Move Extensions Between Skill Groups” that appears for Generic 2.2 switches with EAS. The Change Agent Skills window allows you to view or change an agent’s current skills.

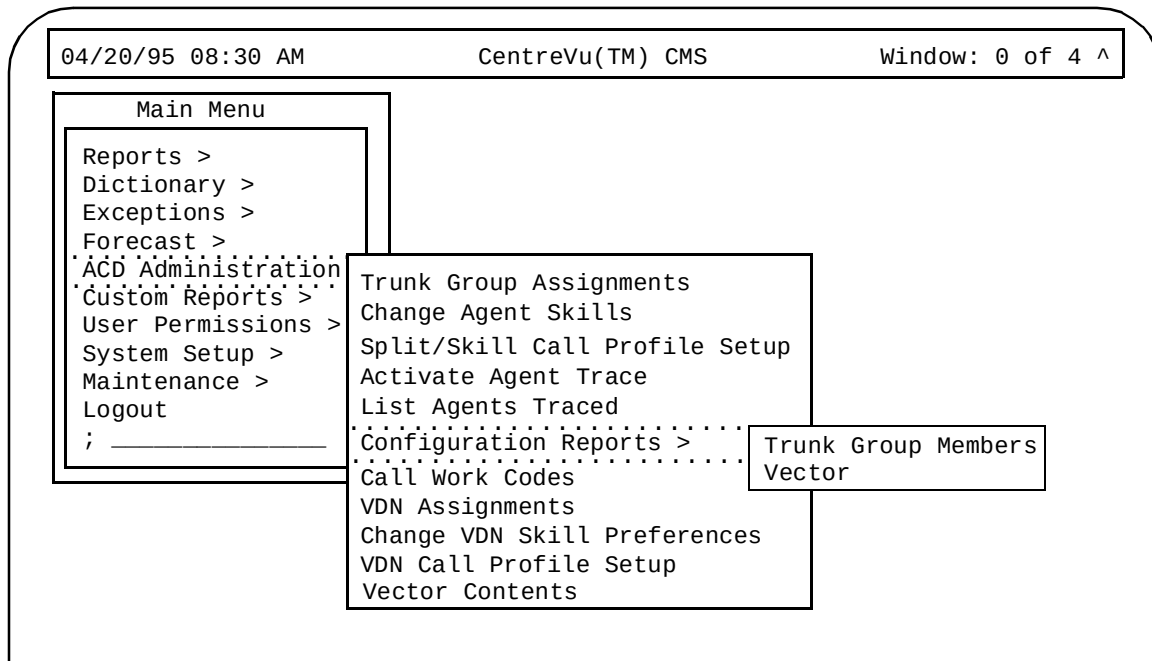


Figure 8-3: ACD Administration Menu — Generic 3 Version 2 or Later with EAS

Figure 8-4 shows the ACD Administration menu for Generic 3 Version 4 or later switches with EAS. For these switches, a new item “Multi-Agent Skill Change” has been added. The Multi-Agent Skill Change window allows you to view or change one skill for up to 32 agents.

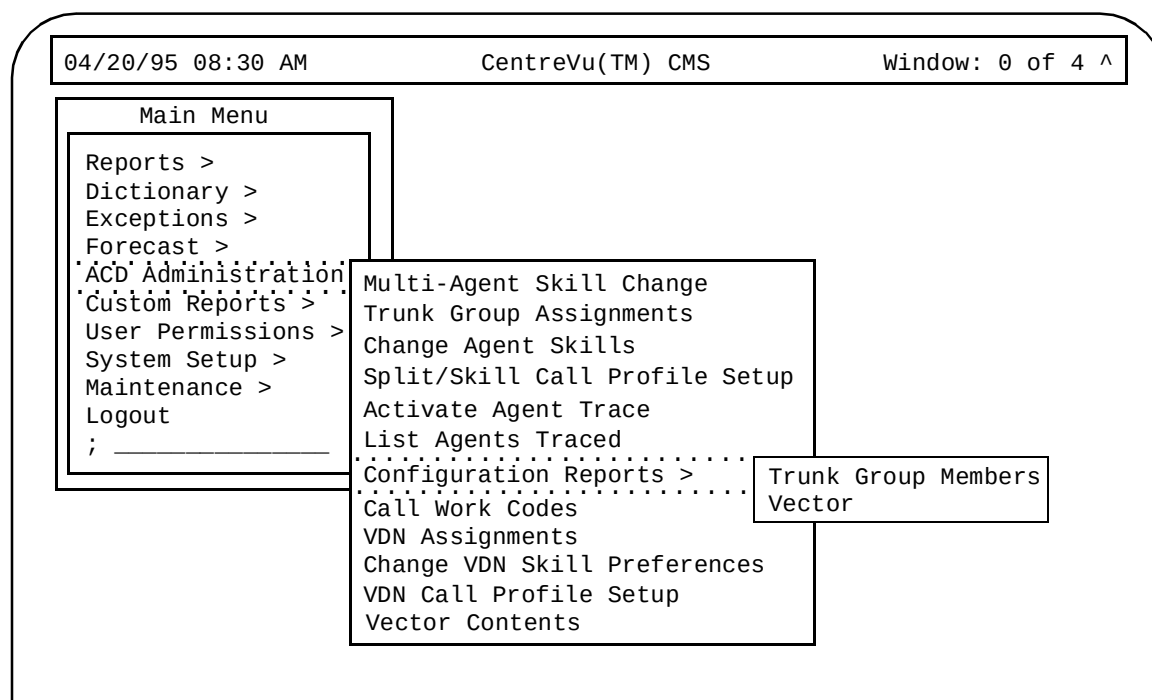


Figure 8-4: ACD Administration Menu — Generic 3 Version 4 or Later with EAS

Move Extensions Between Splits (Switches Without Vectoring)

Purpose

Use the Move Extensions Between Splits window to view current extension assignments or to move measured extensions between splits.

Things to Know Before You Start

- For System 85/Generic 2, you can move as many as 1023 extensions in a single move. For Generic 3 and Generic 1, 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** SLK.
- For Generic 3 Version 2 and Generic 3 Version 3 switches, the requested move takes place after the agent logs out.
- For Generic 3 Version 4 or later switches, 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 (After Call Work) work 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 after call work and becomes available. When the conditions specified above 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 (Generic 3 Version 3 or later switches) can provide agents with current split assignment and other ACD-related information.

- For Generic 3 Version 4 or later switches, agents cannot be preassigned to splits (through switch administration) and then moved to those splits from 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.

- For Generic 2 and System 85, 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 **write** permission for the ACD Administration subsystem and for all affected splits. See Chapter 9, “User Permissions—Feature Access and Split Access.”
- 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 entered in the Dictionary. See Chapter 6, “Dictionary.”

Timetable

You can place the Move Extensions Between Splits window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Note

When Timetable is used to move extensions between splits, information about the status of the move is not saved.

Input Window

Use the Move Extensions Between Splits window (Figure 8-5) to view current extension assignments or to move measured extensions between splits.

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CentreVu(TM) CMS

Windows 1 of 1 ^

ACD Administration: Move Extensions Between Splits

ACD1

Split moving from (optional):

Split moving to*:

Extensions:

*"Split moving to" not used for Find one or List all

Find one

List all

Modify

Next

Previous

Figure 8-5: 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, 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. See the "Move Extensions Between Splits (Switches Without Vectoring)" section of this chapter.

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 Generic 2 or System 85, to move extensions to Split 0, leave the Split moving to field blank.

Extensions:

Enter the extension number(s) to be moved.

For Generic 2 and System 85, up to 1023 extensions can be moved at the same time.

For Generic 1 and Generic 3, up to 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 (Figure 8-6) shows the extensions that were not moved and the reason, or it shows the pending status.

ACD Admin.: Move Extensions Between Status		ACD1
The following extensions did not move because:		
Extension	Reason	
1234	extension not in split	

Figure 8-6: Move Extensions Between Splits Status Window

Move Extensions Between Skill Groups (Generic 2.2 with EAS)



This menu item only appears for Generic 2.2 switches with the Expert Agent Selection (EAS) feature.

Purpose

Use the Move Extensions Between Skill Groups window to view current extension assignments or to move up to 1023 extensions between skill groups.

Things to Know Before You Start

- You can move up to 1023 extensions to a different skill group in a single move.
 - Read Appendix E, “*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 **write** permission for the ACD Administration subsystem and for all affected skills. See Chapter 9, “User Permissions—Feature Access and Split/Skill Access.”
 - 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 6, “Dictionary.”

Timetable

You can place the Move Extensions Between Skill Groups window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Note When Timetable is used to move extensions between skill groups, information about the status of the move is not saved.

Input Window

Use the Move Extensions Between Skill Groups window (Figure 8-7) to view current extension assignments or to move extensions between skill groups.

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ACD Administration: Move Extns Between Skill GroupsACD1

Skill group: _____Extensions: _____

Find one
List all
Modify
Next
Previous

Figure 8-7: Move Extensions Between Skill Groups Window (Generic 2.2 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. See the "Move Extensions Between Skill Groups (Generic 2.2 with EAS)" section of this chapter.

Field Descriptions

Skill group:

Enter the number or name (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 up to 1023 extensions to be moved.

Status Window

If one or more of the requested moves fail, a secondary status window (Figure 8-8) shows the extensions that were not moved and the reason.

03/18/95 08:30 AM		CentreVu(TM) CMS	Windows 1 of 1 ^
ACD Administration: Move Extns Between Skill Groups			ACD1
Skill group: 30		Find one List all Modify Next Previous	
Extensions: 2001-2004;2009			
ACD Admin.: Move Extns Between Skill Groups ACD1			
The following extensions did not move because:			
Extension	Reason		
2002	extension is staffed		

Figure 8-8: Move Extensions Between Skill Groups Status Window

Change Agent Skills (Generic 3 Version 2 or Later with EAS)

Note

This menu item only appears for Generic 3 Version 2 or later switches with the Expert Agent Selection (EAS) feature.

Purpose

Use the Change Agent Skills window to view an agent's current skill assignments or to change up to four skills and the associated skill type (primary or secondary).

Things to Know Before You Start

- 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 **First** has an impact on the way tracking is done for an agent. Extension calls, direct agent calls, and call-handling time are attributed to the first skill administered and successfully logged into.
- For Generic 3 Version 2 and Generic 3 Version 3 switches, the requested skill changes go into effect after the agent logs out.
- For Generic 3 Version 4 or later switches, 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 (After Call Work) work mode, the change is pending until the agent logs out, changes to AUX work mode, or completes all calls and after call work and becomes available. When the conditions specified above 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.

- Read Appendix E, “*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 change agent skills, you need **read/write** permission for the ACD Administration subsystem. See Chapter 9, “User Permissions—Feature Access and Split/Skill Access.”
- 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 6, “Dictionary.”

Timetable

You can place the Change Agent Skills window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Note

When Timetable is used to change agent skills, information about the status of the change is not saved.

Input Window

Use the Change Agent Skills window (Figure 8-9) to view an agent’s current skill assignments or to change up to four skills and the associated skill type (primary or secondary).

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CentreVu(TM) CMS

Windows 1 of 1 ^

ACD Administration: Change Agent Skills

ACD1

Agent: _____

Find one
Modify

Skill	Type
First: _____	—
Second: _____	—
Third: _____	—
Fourth: _____	—

Figure 8-9: Change Agent Skills (Generic 3 Version 2 or Later with EAS)**Field/Action List
Usage****Modify**

Changes up to four skills and skill types for the specified agent.

For Generic 3 Version 2 and Generic 3 Version 3 switches, the requested skill changes go into effect after the agent logs out.

For Generic 3 Version 4 or later switches, 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 (After Call Work) work mode, the change is pending until the agent logs out, changes to AUX work mode, or completes all calls and after call work and becomes available.

Note

For agents who frequently have calls on hold, skill changes can remain pending for a long time.

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 or change.

Skill First through Fourth:

Enter the number or name (must be previously assigned in the Dictionary subsystem) of the skill to be assigned to the agent in each of the skill fields.

Each skill must be unique (the same skill cannot be specified twice) or left blank. The skill that is administered as **First** has an impact on the way tracking is done for an agent. Extension calls, direct agent calls, and call-handling time are attributed to the first skill administered and successfully logged into.

Type

Enter a **P** or **p** if the skill is a primary skill. Enter an **S** or **s** if the skill is a secondary skill.

Multi-Agent Skill Change (Generic 3 Version 4 with EAS)

Note

This menu item only appears for Generic 3 Version 4 or later switches with the Expert Agent Selection (EAS) feature.

Purpose

Use the Multi-Agent Skill Change window to view current skill assignments or to change one skill for up to 32 agents. You can also specify the skill type (primary or secondary) for a skill that is added or modified.

Things to Know Before You Start

- 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 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 (After Call Work) work mode, the change is pending until the agent logs out, changes to AUX work mode, or completes all calls and after call work and becomes available. When the conditions specified above are met, the agents are automatically logged out and 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.

- Read Appendix E, “*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 change skills, you need **write** permission for the ACD Administration subsystem and for all affected skills. See Chapter 9, “User Permissions—Feature Access and Split/Skill Access.”
- 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. See Chapter 6, “Dictionary.”

Timetable

You can place the Multi-Agent Skill Change window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Note

When Timetable is used to change agent skills, information about the status of the change is not saved.

Input Window

Use the Multi-Agent Skill Change window (Figure 8-10) to view current skill assignments or to change one skill for up to 32 agents.

03/18/95 08:30 AM CentreVu(TM) CMS Windows 1 of 1 ^

ACD Administration: Multi-Agent Skill Change ACD1

Current skill: _____

New skill*: _____

New skill type*: _

Agent(s): _____

Add
Delete
Find one
List all
Modify
Next
Previous

*New skill, skill type not used for Find one or List all

Figure 8-10: Multi-Agent Skill Change (Generic 3 Version 4 with EAS)

**Field/Action List
Usage****Add**

Adds a new skill to up to 32 agents. To add a new skill, complete the `New skill`, `New skill type`, and `Agent(s)` fields, and select `Add` from the action List.

Delete

Removes a skill from up to 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, 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 only find 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 type associated with a skill for up to 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 type` field is optional for the `Modify` action. If you do not enter a new skill type, the skill type associated with the current skill will be associated with the new skill.

To change the skill type associated with a skill, enter the current skill in both the `Current skill` and `New skill` fields, and then enter the new skill type in the `New skill type` field and the login IDs or names (must be previously assigned in the Dictionary subsystem) of the agents to whom the new skill type will apply in the `Agent(s)` field.

Note

If you select **Add**, **Delete**, or **Modify** 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.

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.

New skill type:

Enter a **P** or **p** if the skill is a primary skill. Enter an **S** or **s** if the skill is a secondary skill. You must enter a value in this field for the **Add** action.

Agent(s):

Enter the login ID or name (must be previously assigned in the Dictionary subsystem) of up to 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 (Figure 8-11) shows the login IDs that were not changed and the reason, or the status of the pending skill changes.

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CentreVu(TM) CMS

Windows 1 of 1 ^

ACD Administration: Multi-Agent Skill Change

ACD1

Current skill: 10

New skill*: 15

New skill type*: P

Agent(s): John Smith

Add

Delete

Find one

List all

Modify

Next

Previous

*New skill, skill type not used for Find one or List all

ACD Admin.: Multi-Agent Skill Change

ACD1

The following logids were not modified because:

Login ID	Name	Reason
4001	John Smith	specified skill not assigned to agent

Figure 8-11: Multi-Agent Skill Change Status Window (Generic 3 Version 4 with EAS)

Trunk Group Assignments (Switches Without Vectoring)

Purpose

Use the Trunk Group Assignments window to view trunk group assignments (all switches) and to move trunk groups from one split to another (Generic 2 and System 85 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** SLK.
 - If you have the Call Vectoring or Call Prompting feature, your window looks different. See the Call Vectoring/Prompting description for more information.
 - For Generic 1 and Generic 3, trunk group assignments can be displayed in this window, but you cannot make any changes to them.
 - For Generic 2 and System 85, Split 0 is a dummy split used to assign 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 **write** permission for the ACD Administration subsystem and all affected trunk groups. See Chapter 9, “User Permissions—Feature Access and Trunk Group Access.”
 - 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 6, “Dictionary.”

Timetable

You can place the Trunk Group Assignments window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

Use the Trunk Group Assignments window (Figure 8-12) to view trunk group assignments (all switches) or to move trunk groups from one split to another (Generic 2 or System 85).

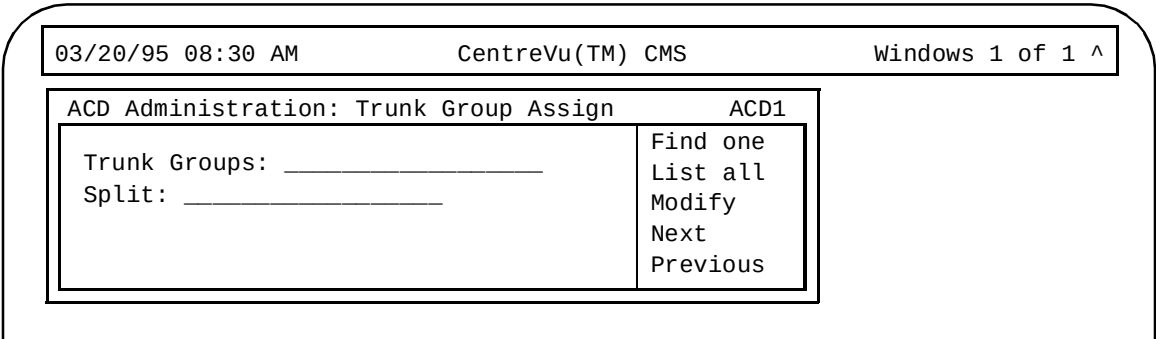


Figure 8-12: Trunk Group Assignments Window

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. See the “Trunk Group Assignment Status” section of this chapter.

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.

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.

If one or more of the requested moves fail, a secondary status window (Figure 8-13) shows the trunk groups that were not moved and the reason.



Trunk Group Assignments (Generic 2/System 85 with Vectoring)

Note If you do not have the Call Vectoring feature, the Trunk Group Assignments window is **not** available.

Purpose

Use the Trunk Group Assignments window (Figure 8-14) 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 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 **write** permission for the ACD Administration subsystem and for any affected trunk groups or VDNs.
- 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 6, "Dictionary."

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 5, "Timetable and Shortcut."

Input Window

Use the Trunk Group Assignments window (Figure 8-14) to view or change trunk-group-to-VDN assignments for a System 85 or Generic 2 switch with Call Vectoring.

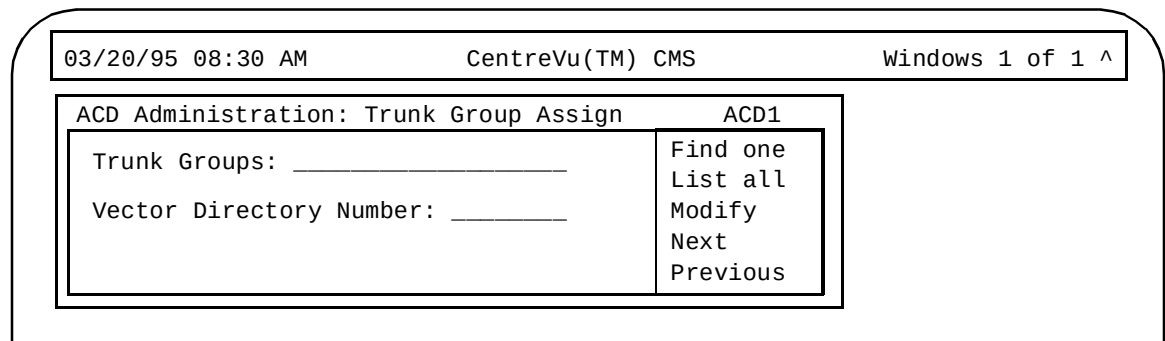


Figure 8-14: Trunk Group Assignments Window (System 85/Generic 2 with Vectoring)

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 (Generic 3 with Vectoring)

Note

If you do not have the Call Vectoring feature, this Trunk Group Assignments window is **not** available.

Purpose

Use the Trunk Group Assignments window (Figure 8-15) to see what VDNs or non-vector-controlled splits your trunk groups are assigned to.

Automatic-in trunk groups on the Generic 3 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.
- 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.

Input Window

Use the Trunk Group Assignments window (Figure 8-15) to view trunk-group assignments for Generic 3 with Call Vectoring.

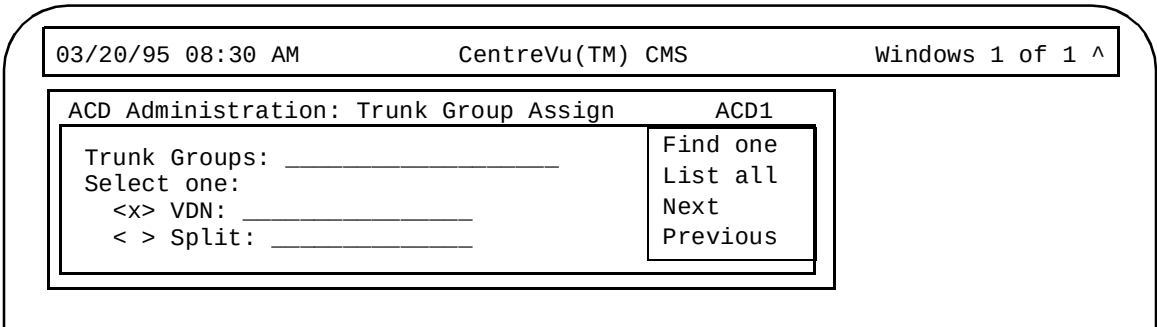


Figure 8-15: Trunk Group Assignments Window (Generic 3 with Vectoring)

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.

Split Parameters (Generic 2/System 85 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 and System 85 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

- Switch administration is required to change to Queue Directory and Priority Queue Directory numbers.
 - To change split parameters, you need **write** permission for the ACD Administration subsystem. See Chapter 9, “User Permissions—Feature Access.”
 - To view split parameters, you need **read** permission for the ACD Administration subsystem.
 - You do *not* need **write** permission for the affected split to intraflow calls to another split.
-

Relationships to Other Subsystems

Dictionary

To use names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 6, “Dictionary.”

Timetable

You can place the Split Parameters window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

Use the Split Parameters Window (Figure 8-16) window to change the delay time for prerecorded announcements and to set up or change intraflow for a Generic 2 or System 85 switch without Call Vectoring.

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ACD Administration: Split ParametersACD1

Split: _____

Queue director no.: xxxxx

Priority queue directory no.: xxxxx

Delay time for annnc. 1: _____

Inflow threshold: _____

Delay time for annnc. 2: _____

Outflow threshold: _____

Intraflow type (Select on - optional):
< > none
<x> conditional
< > all

(Select one for each destination - optional):
Destination 1Destination 2Destination 3
<x> split, split _____<x> split, split _____<x> split, split _____
< > ext., no. _____< > ext., no. _____< > ext., no. _____
< > prior, split _____< > prior, split _____< > prior, split _____
< > CAS attendant< > CAS attendant< > CAS attendant
< > attendant< > attendant< > attendant
< > unsigned< > unsigned< > unsigned

Find one

Modify

Figure 8-16: 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. See the “Split Parameters Status Window” section in this chapter.

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

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

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 meets or exceeds nine.
- When a destination split's inflow threshold is met or exceeded, the ACD tries to forward calls to the next destination specified in the original split's intraflow parameters. See the Split Parameters window 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 meets or exceeds ten.
- 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.



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 (a l l) 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.

Status Window

If the modify fails, a secondary status window (Figure 8-17) shows the fields that were not changed and the reason.

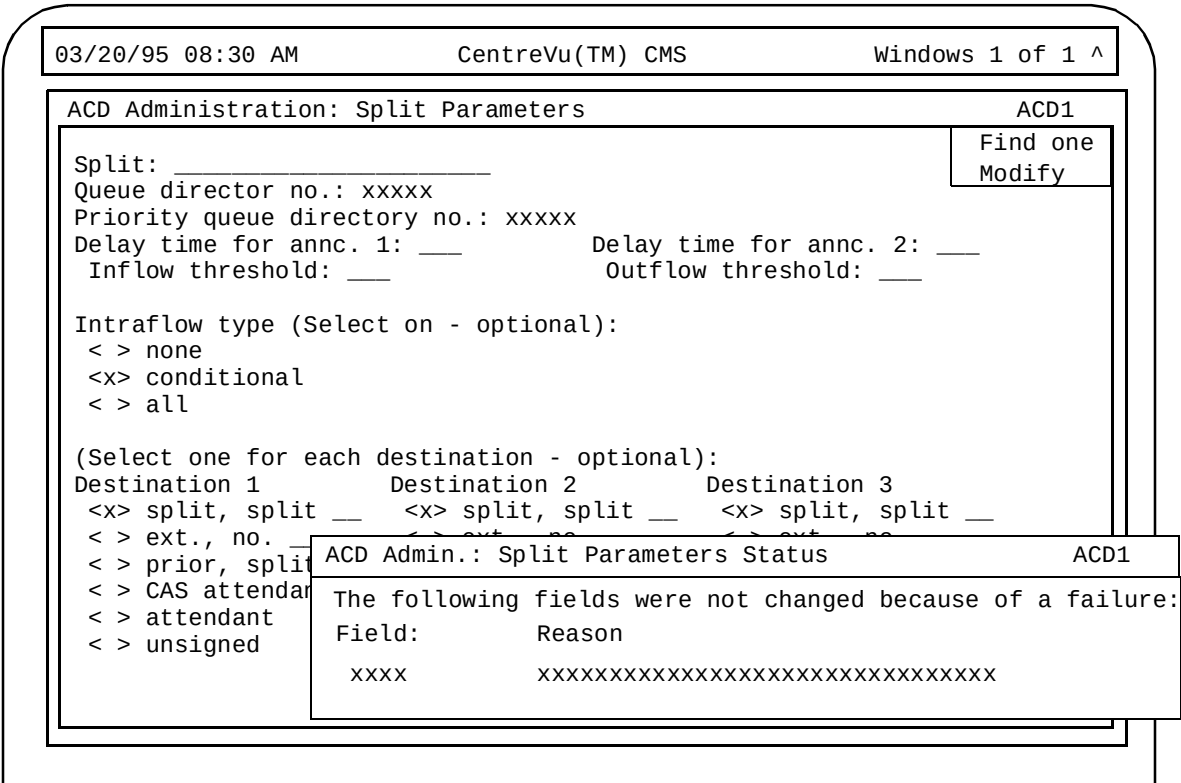


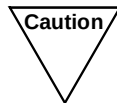
Figure 8-17: Split Parameters Status Window

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



If you change the increments, data will be distorted for the interval in which you made the change. *CentreVu* CMS deletes the split/skill call profile data already collected for that interval and only keeps the split/skill call profile data that occurred 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 placed in the wrong time intervals.

Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The time increments shown on the report for the changed increment in the Call Profile Setup window will be the maximum values entered for each increment before or after the change. For example, if you change the increments from all “0s” to 1, 3, 5, 10, etc., the Split/Skill Call Profile report shows 1, 3, 5, 10, etc. 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 time increments early in the day, preferably before agents begin staffing splits/skills and before a large amount of data has been gathered. Also change the profile 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 profile data for the month in which you make profile 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 **write** permission for the ACD Administration subsystem and for all affected splits/skills. See Chapter 9, “User Permissions—Feature Access and Split/Skill Access.”
 - 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 6, “Dictionary.”

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 5, “Timetable and Shortcut.”

Input Window

Use the Split/Skill Call Profile Set window (Figure 8-18) 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.

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ACD Administration: Split/Skill Call Profile Set ACD1

Splits
Skill: _____

Acceptable service level: ____

Service Level increments (seconds):

Inc 1	Inc 2	Inc 3	Inc 4	Inc 5
0 to ____	0 to ____	0 to ____	0 to ____	0 to ____
Inc 6	Inc 7	Inc 8	Inc 9	Inc 10
0 to ____	0 to ____	0 to ____	0 to ____	0 to ____

Add
Delete
Find one
List all
Modify
Next
Previous

Figure 8-18: Split/Skill Call Profile Set Window

Field Descriptions

Splits/Skills:

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.

Each of the nine increments can vary in length (for example, 0 to 15, 0 to 20, 0 to 26, 0 to 38, 0 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 25 agents. This limit applies to the number of agents administered to be traced across all ACDs. It does not take into account whether or not the agents are logged in.
 - The agent trace file rolls over (old records are overwritten by new records) when the number of records reaches your allocated number. You do not have to delete agent trace records. If you want to keep records of old agent traces, you should print them.
 - Depending on which load of the CMS software that you have, the system may or may not check to see if you have administered undefined agent login IDs for tracing.

If you have a CMS load earlier than r3v4ak, the system does not check to see if the administered agent trace login IDs are undefined and counts all administered agent trace login IDs toward the maximum of number of 25 agents to be traced.

If you have the CMS r3v4ak or later load, this problem is corrected.
 - 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 Chapter 10, “System Setup—Data Collection.”
- You need to specify what agent data and how much agent data are stored for use in historical reports before turning on an agent trace. See Chapter 10, “System Setup—Agent Trace Record Contents.”
- To start or stop an agent trace, you need **write** permission for the ACD Administration subsystem. See Chapter 9, “User Permissions—Feature Access.”
- 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 Chapter 4, "Historical Reports," for more information on the Agent Trace report.

Timetable

You can place the Activate Agent Trace window on a timetable. See Chapter 5, "Timetable and Shortcut."

Input Window

Use the Activate Agent Trace window (Figure 8-19) to start or stop *CentreVu* CMS tracing of agent activities.

Figure 8-19: 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 name(s) or logid(s):

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.



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. Also, at some time in the past, those agents 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.
-

Relationships to Other Subsystems

Timetable

You can place the List Agents Traced window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

Use the List Agents Traced window (Figure 8-20) to view a list of agents and dates for which agent trace data are available.

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ACD Administration: List Agents Traced

ACD1

Agent(s):

Dates:

Find one

List all

Next

Previous

ACD Admin: List Agents Traced: List All

ACD1

Date	Agent Traced	Login ID
mm/dd/yy	xxxxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx
mm/dd/yy	xxxxxxxxxxxxxxxxxxxxxx	xxxxxxxxxx

Figure 8-20: 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 be 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.
-

Relationships to Other Subsystems

Dictionary

To use names for splits, the name must first be entered in the Dictionary subsystem. See Chapter 6, “Dictionary.”

Timetable

You can place the Split Members Configuration Input window and report on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

Use the Configuration Reports: Split Members Input window (Figure 8-21) to run the Split Members Configuration report.

Figure 8-21: 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**, enter a file name and then press **Return**. The file is placed in your home directory in the *UNIX*^{*} system/*Solaris*[†] system (/usr/<your login ID>) unless you specify a full path name. If

* UNIX is a registered trademark of Novell, Inc.

† Solaris is a trademark of Sun Microsystems, Inc.

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 8-22) 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.

With Generic 2 and System 85, Split 0 lists the extensions in Split 0 as well as the extensions in other splits.

Split Members Configuration		
Printed 3/12/95 9:32 AM		
Split	Split Name	Extension
9	Billing	1289
9	Billing	1296
9	Billing	1295
15	Sales	1292
15	Sales	1294
15	Sales	1293

Figure 8-22: 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	You need read permission for the ACD Administration subsystem and for all affected trunk groups.
Relationships to Other Subsystems	Dictionary To use names for trunk groups, the names must first be entered in the Dictionary subsystem. See Chapter 6, “Dictionary.” Timetable You can schedule the Trunk Group Members Configuration Input window and report on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

Use the Configuration Reports: Trunk Group Input window (Figure 8-23) to run the Trunk Group Configuration report.

Figure 8-23: 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**, enter a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system/*Solaris* system (*/usr/<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
Configuration
Report**

The Trunk Group Configuration report (Figure 8-24) 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 does not have any equipment location assigned to it, the Equipment Location field is blank.

Trunk Group Configuration		
Printed 3/20/95 9:34 AM		
Trunk Group	Trunk Group Name	Equipment Location
18	Billing_TG	000000302
18	Billing_TG	000000303
18	Billing_TG	000000301
19	Sales_TG	000000802
19	Sales_TG	000000703
19	Sales_TG	000000903

Figure 8-24: Trunk Group Configuration Report

Vector Configuration

Note

If you do not have the Call Vectoring feature, this 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 a trunk group or VDN assigned to it. A vector number may also appear even if the vector does not yet contain any steps.
 - On Generic 2.2 or Generic 3, 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. 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 5, “Timetable and Shortcut.”

Input Window

Use the Configuration Reports: Vector Input window (Figure 8-25) to run the Vector Configuration report.

Figure 8-25: Vector Configuration Input Window

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, enter a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system/*Solaris* system (*/usr/<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 8-26) 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.

Vector Configuration

Printed 3/10/95 10:00 AM

Trunk Group	Trunk Group Name	VDN	VDN Name	Vector	Vector Name
45	region8sales	50001	salesreg1	1	sales
46	Billing_TG	50002	Billing_VDN	2	Billing_Vec
47	Order_Inquiry_TG	50003	Order_Inquiry_VD	3	Order_Inquiry_Ve
48	Complaints_TG	50004	Complaints_VDN	4	Complaints_Vec
49	Legal_TG	50005	Legal_VDN	6	Legal_Vec

Figure 8-26: Vector Configuration Report

Vector Configuration with Skill Preferences

Note

If you have EAS, this report replaces the Vector Configuration report shown for switches without the EAS feature.

Purpose

Use the Vector Configuration with Skill Preferences input window to run the Vector Configuration with Skill Preferences 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 a trunk group and VDN assigned to it. 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 Skill Preference report, you must have **read** permission for the ACD Administration subsystem and the vector(s) you want listed in the report. 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 Skill Preferences report on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

Use this window (Figure 8-27) to run the Vector Configuration with Skill Preferences report.

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ACD Admin: Configuration Reports: Vector Input ACD1

Vector(s): _____ Run

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Figure 8-27: Vector Configuration with Skill Preferences 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, enter a file name and then press **Return**. The file is placed in your home directory in the *UNIX* system/*Solaris* system (*/usr/<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 8-28) lists the trunk groups, VDNs, and VDN skill preferences associated with the specified vectors.

Printed mm/dd/yy hh:mm xM											
Trunk No.	Group Name	VDN No.	Name	Vector No.	Name	VDN 1st	Skills Name	2nd	Name	3rd	Name
---	-----	-----	-----	-----	-----	---	-----	---	-----	---	-----
xxx	xxxxxxxxxx	xxxxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx
xxx	xxxxxxxxxx	xxxxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx
xxx	xxxxxxxxxx	xxxxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx
xxx	xxxxxxxxxx	xxxxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx	xxx	xxxxxxxxxx

Figure 8-28: 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 Codes historical reports.

Things to Know Before You Start

- Call Work Codes must be positive integers with 1 to 16 digits or must be names defined 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 unassigned Call Work Codes. You cannot delete Call Work Code 0. If an agent enters an unassigned Call Work Code, it shows up as code 0 on the Call Work Code report. For *CentreVu* CMS R3V4 or later, 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.
 - Call Work Codes collected for the Call History feature must be assigned using the Call Work Codes window.
 - 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 Codes. See Chapter 10, “System Setup—Data Storage Allocation.”
- You must also identify and specify where you want to store Call Work Code data. See Chapter 10, “System Setup—Free Space Allocation.”

- To add or delete Call Work Codes, you need **write** permission for the ACD Administration subsystem. See Chapter 9, “User Permissions—Feature Access.”
 - 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. See Chapter 4, “Historical Reports—Call Work Codes.”

Dictionary

For a name to appear in the report instead of the numerical code, the name must first be entered in the Dictionary subsystem. A Call Work Code name can have up to nine characters. See Chapter 6, “Dictionary—Call Work Codes.”

Exceptions

For *CentreVu* CMS R3V4 or later, you can administer an exception for agents who enter invalid (unadministered) Call Work Codes. See Chapter 7, “Exceptions.”

Timetable

You can place the Call Work Codes window on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

Use the Call Work Codes window (Figure 8-29) to add, delete, or view the Call Work Codes for which *CentreVu* CMS collects data.

03/20/95 08:30 AM		CentreVu(TM) CMS		Windows 1 of 1 ^	
ACD Admin: Call Work Codes				ACD1	
Number of codes allocated:		1050		Add Delete Find one List all Next Previous	
Number of codes administered:		50			
Call work code(s)		10051-10080			

Figure 8-29: 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 do not have the Call Vectoring feature, the VDN Assignments window is **not** available.

Purpose

Use the VDN Assignments window (Figure 8-30) 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 **write** permission for the ACD Administration subsystem and for the vector to which you are assigning the VDNs.
 - To view VDN assignments, you must have **read** permission for the vector and VDN(s) you are viewing and for the ACD Administration subsystem.
-

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 5, “Timetable and Shortcut.”

Input Window

Use the VDN Assignments window Figure 8-30) to view or change VDN assignments.

03/20/95 08:30 AM		CentreVu(TM) CMS		Windows 1 of 1 ^	
ACD Administration: VDN Assignments				ACD1	
VDNs: _____		Delete Find one List all Next Previous			

Vector: _____					

Figure 8-30: 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 lists with Vector 0 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 what VDNs you can assign, 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 you can assign VDNs to, leave the input fields blank and select **List all**. See the "Vector Configuration" section of this chapter.

Change VDN Skill Preferences



If you do not have the Call Vectoring and Expert Agent Selection 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.
 - When the VDN skill preferences are changed on a Generic 3 Version 2 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 **write** permission for the ACD Administration subsystem and for the affected VDNs.
- 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 5, "Timetable and Shortcut."

Input Window

Use the Change VDN Skill Preferences window (Figure 8-31) to change VDN skill preferences for a list of VDNs.

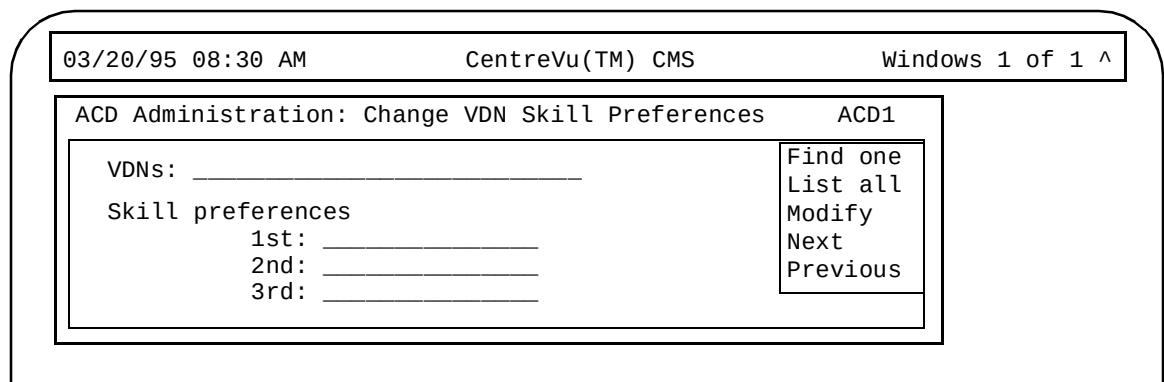


Figure 8-31: Change VDN Skill Preferences Window

Field/Action List Usage

Modify

Selecting **Modify** changes switch administration which effects all new calls on a Generic 2.2 switch and existing and new calls on a 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.

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 currently assigned to VDNs, select **List all** on the Vector Configuration with Skill Preference input window. See the "Vector Configuration with Skill Preferences" section of this chapter.

VDN Call Profile Setup

Note

If you do not have the Call Vectoring feature, the VDN Call Profile Setup window is **not** available.

Purpose

Use the VDN Call Profile Setup window (Figure 8-32) 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, connected, and abandoned calls and displays them in the first increment of the report.

Things to Know Before You Start

Caution

If you change the increments, data will be distorted for the interval in which you made the change. *CentreVu* CMS deletes the VDN call profile data already collected for that interval and only keeps the VDN call profile data that occurred in that interval after the change. Then *CentreVu* CMS 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 time intervals.

Daily, weekly, and monthly summaries that include the date of the increment change will look peculiar. The time increments shown on the report for the changed increment in the Call Profile Setup window will be the maximum values entered for each increment before or after the change. For example, if you change the increments from all "0s" to 1, 3, 5, 10, etc., the VDN Call Profile report shows 1, 3, 5, 10, etc. 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 time increments early in the day, preferably before agents begin staffing splits and before a large amount of data has been gathered. Also change the profile 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 profile data for the month in which you make profile 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 the first VDN the call reaches until the call is answered, connected to a non-ACD destination, or abandoned.

Prerequisite System Administration

- To add, delete, or change a VDN call profile, you must have **write** permission for the ACD Administration subsystem and for the affected VDNs.
- 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 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.

Input Window

Use the VDN Call Profile Set window (Figure 8-32) to define the acceptable service level and service level increments for VDNs.

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ACD Administration: Split/Skill Call Profile Set ACD1

VDNs: _____

Acceptable service level: ____

Service Level increments (seconds):

Inc 1 0 to ____	Inc 2 to ____	Inc 3 to ____	Inc 4 to ____	Inc 5 to ____
Inc 6 to ____	Inc 7 to ____	Inc 8 to ____	Inc 9 to ____	Inc 10 And above

Context Menu:

- Add
- Delete
- Find one
- List all
- Modify
- Next
- Previous

Figure 8-32: VDN Call Profile Set 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 you can assign, 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.

The number of seconds can be from 1 to 3600, the maximum number of seconds in an hourly 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 each service level increment from 2 through 9.

- 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. *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 Generic 3 Version 2 or later switches, a single vector can have up to 32 steps. All other switches support up to 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.

- 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.

About Generic 2/System 85

- 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 of 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 2.1, Generic 2.2 without Enhanced ACD features and capacities, or System 85 switches.

- For System 85/Generic 2, vectors may not contain Call Prompting commands. See Table 8-1.
- For Generic 2.2 with EAS, the skill you enter for the *oldest call waiting* condition must end in a zero.

About Generic 3

- For Generic 3, you can link one vector with another vector with a “goto vector” command. Linking two vectors creates a virtual vector of more than 15 (or 32 with Generic 3 Version 2 or later switches) 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.
- For Generic 3, your vectors may contain Call Vectoring commands, Call Prompting commands, or both, depending on which features you have on the switch. See Table 8-2 and Table 8-3.
- For Generic 3, 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, the condition always fails.

Prerequisite System Administration

- To change a vector's contents, you must have **write** permission for the ACD Administration subsystem and for the vector.
- 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.

System 85/Generic 2

- For System 85/Generic 2, 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 Automatic Alternate Routing (AAR) feature must be administered on the switch.
- For Generic 2.2, up to 5 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 System 85/Generic 2, the “announcement” command requires that announcement numbers be assigned to equipment locations of recorded announcement trunks.

Generic 3

- For Generic 3, 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.
- For Generic 3 with Prompting, at least one TN744 circuit pack (which has eight touch-tone receivers) must be connected to the switch.

Input Window

Use the Vector Contents window (Figure 8-33) to add a new vector or to change an existing vector.

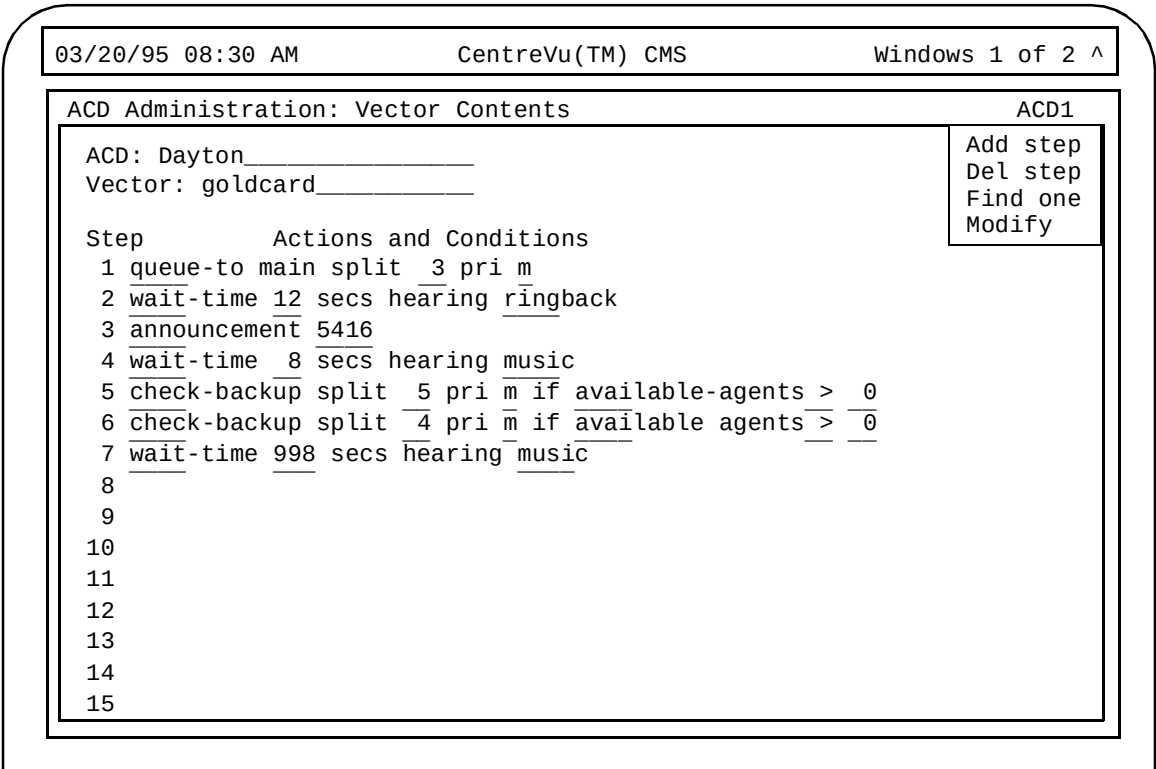


Figure 8-33: Vector Contents Window

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 (“How to Add a New Vector,” “How to Modify a Vector,” or “How to Copy 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 “How to Modify 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 “How to Modify a Vector”) to save the vector with the steps you deleted.

Find one

To **view** a vector's contents, complete the **ACD** and **Vector** fields and select **Find one**.

Note

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 be previously assigned in the Dictionary subsystem) of the ACD for which you want to define a vector.

The default ACD number or name is the current ACD.

Vector:

Enter the number or name (must be previously assigned in the Dictionary subsystem) of the vector you want to 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.

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 do have to move the cursor to the remaining fields of the command and enter the appropriate values.

You may need to press **Tab** or the spacebar in almost all fields. For 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 8-1, Table 8-2, and Table 8-3 list the available vector commands for System 85/Generic 2 and Generic 3 switches, and the allowed values for each input field. For a more detailed description of each command, see Appendix B, “Call Vectoring and Related Generic 3 Features,” or Appendix C, “Call Vectoring and Related System 85/Generic 2 Features.”

Table 8-1: Vector Commands — System 85/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, high, top) (1st, 2nd, 3rd [VDN])
<u>route-to</u> <u>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 (continue, music, ringback, silence) (0-998 [G2.2])^a

a. Even numbers only.

Table 8-1: Vector Commands — System 85/Generic 2 (Contd)

<u>check-backup</u> split	<u> </u> (1-60)	pri <u> </u> (low, med, high, top)	<u>available-agents</u> >	<u> </u> (0-1023)
			<u>calls-queued</u> <	<u> </u> (1-99)
			<u>oldest-call-wait</u> <	<u> </u> (1-999)
			<u>staffed-agents</u> >	<u> </u> (0-1023)

EAS only

<u>check-backup</u> skill	<u> </u> (10-609) (1st, 2nd, 3rd [VDN])	pri <u> </u> (low, med, high, top)	<u>available-agents</u> >	<u> </u> (0-1023)
			<u>calls-queued</u> <	<u> </u> (1-99)
			<u>oldest-call-wait</u> ^a <	<u> </u> (1-999)
			<u>staffed-agents</u> >	<u> </u> (0-1023)

a. For the oldest-call-wait condition, skill numbers must end with a zero (for example, 10, 20...)

Table 8-1: Vector Commands — System 85/Generic 2 (Contd)

<u>goto</u> step	<u> </u> (1-15)	if <u>available-agents in split</u>	<u> </u> (0-60)	<u> </u> (< or >)	<u> </u> (1-1023) (0-1023)	
		<u>calls-queued in split</u>	<u> </u> (1-60)	<u>pri</u> <u> </u> (low, med, high, top)	<u> </u> (< or >)	<u> </u> (1-99) (0-99)
		<u>oldest-call-wait in split</u>	<u> </u> (1-60)	<u>pri</u> <u> </u> (low, med, high, top)	<u> </u> (< or >)	<u> </u> (1-999) (0-999)
		<u>staffed-agents in split</u>	<u> </u> (0-60)	<u> </u> (< or >)	<u> </u> (1-1023) (0-1023)	
		<u>time-of-day is</u>	<u> </u> (mon, tue, wed, thur, fri, sat, sun, all)	<u> </u> to (hh:mm in military time or am/pm)	<u> </u> (mon, tue, wed, thur, fri, sat, sun, all)	<u> </u> (hh:mm in military time or am/pm)
		<u>unconditionally</u>				

EAS only						
<u>goto</u> step	<u> </u> (1-15)	if <u>available-agents in skill</u>	<u> </u> (10-609) (1st, 2nd, 3rd [VDN])	<u> </u> (< or >)	<u> </u> (1-1023) (0-1023)	
		<u>calls-queued in skill</u>	<u> </u> (10-609) (1st, 2nd, 3rd [VDN])	<u>pri</u> <u> </u> (low, med, high, top)	<u> </u> (< or >)	<u> </u> (1-99) (0-99)
		<u>oldest-call-wait in skill</u> ^a	<u> </u> (10-600) (1st, 2nd, 3rd [VDN])	<u>pri</u> <u> </u> (low, med, high, top)	<u> </u> (< or >)	<u> </u> (1-999) (0-999)
		<u>staffed-agents in skill</u>	<u> </u> (10-609) (1st, 2nd, 3rd [VDN])	<u> </u> (< or >)	<u> </u> (1-1023) (0-1023)	
		<u>time-of-day is</u>	<u> </u> (mon, tue, wed, thur, fri, sat, sun, all)	<u> </u> to (hh:mm in military time or am/pm)	<u> </u> (mon, tue, wed, thur, fri, sat, sun, all)	<u> </u> (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...)

Table 8-2: Vector Commands — Generic 3

<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]) (Optional: 1- to 5-digit extension or none [default]) (1-99 [G3i]) (1-255 [G3r])
EAS only <u>messaging skill</u> ^a _____ for extension _____ (1-24 [specific: G3vs/sV2]) (Optional: 1- to 5-digit extension or none [default]) (1-99 [specific: G3iV2]) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])

a. This command is also available with Call Prompting.

Table 8-2: Vector Commands — Generic 3 (Contd)

<u>queue-to main split</u> _____ pri ____ (1-24 [G3vs/s]) (low, med, (1-99 [G3i]) high, top) (1-255 [G3r])	
EAS only <u>queue-to main skill</u> _____ pri ____ (1-24 [specific: G3vs/sV2]) (low, med, (1-99 [specific: G3iV2]) high, top) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])	
<u>route-to digits</u>	with cov _____ (y or n)
<u>route-to number</u>	_____ if <u>digit equals</u> _____ (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 (continue, music, ringback, silence)

a. This command is also available with Call Prompting.

b. Even numbers only.

Table 8-2: Vector Commands — Generic 3 (Contd)

<u>check-backup split</u>	<u> </u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	<u>pri</u> <u> </u> (low, med, high, top)	<u>available-agents</u> > <u> </u> (0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
			<u>calls-queued</u> < <u> </u> (1-200 [G3vs/s/i]) (1-999 [G3r])
			<u>oldest-call-wait</u> < <u> </u> (2-998) ^a
			<u>staffed-agents</u> > <u> </u> (0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
			<u>unconditionally</u>
EAS only			
<u>check-backup skill</u>	<u> </u> (1-24 [specific: G3vs/sV2]) (1-99 [specific: G3iV2]) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])	<u>pri</u> <u> </u> (low, med, high, top)	<u>available-agents</u> > <u> </u> (0-149 [G3vs/sV2]) (0-199 [G3iV2]) (0-998 [G3rV2])
			<u>calls-queued</u> < <u> </u> (1-200 [G3vs/s/iV2]) (1-999 [G3rV2])
			<u>oldest-call-wait</u> < <u> </u> (2-998) ^a
			<u>staffed-agents</u> > <u> </u> (0-149 [G3vs/sV2]) (0-199 [G3iV2]) (0-998 [G3rV2])
			<u>unconditionally</u>

a. Even numbers only.

Table 8-2: Vector Commands — Generic 3 (Contd)

<u>converse-on split</u>	_____	pri ____	passing	<u>DATA 1</u> ^a	and	<u>DATA 2</u>
	(1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	(low, med, high, top)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits ^b ,” “qpos,” “#,” or “none”)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits ^b ,” “qpos,” “#,” or “none”)
EAS only						
<u>converse-on skill</u>	_____	pri ____	passing	<u>DATA 1</u> ^a	and	<u>DATA 2</u>
	(1-24 [specific: G3vs/sV2]) (1-99 [specific: G3iV2]) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])	(low, med, high, top)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits ^b ,” “qpos,” “#,” or “none”)		(string of up to six digits or asterisks, “vdn,” “ani,” “digits ^b ,” “qpos,” “#,” or “none”)

a. If DATA 1 is administered as “none,” DATA 2 must also be administered as “none.”

b. The Call Prompting feature must be enabled.

Table 8-2: Vector Commands — Generic 3 (Contd)

<u>goto step</u> ^a	<u>if</u> (1-15 [G3V1]) (1-32 [G3V2])	<u>available-agents in split</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	(< or >)	(1-150 [G3vs/s], 1-200 [G3i], 1-999 [G3r]) (0-149 [G3vs/s], 0-199 [G3i], 0-998 [G3r])
	<u>calls-queued in split</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	<u>pri</u> (low, med, high, top)	(< or >)	(1-200 [G3vs/s/i], 1-999 [G3r]) (0-199 [G3vs/s/i], 0-998 [G3r])
	<u>digits equal</u> ^b (1-16 characters: 0-9, #) ^c			
	<u>oldest-call-wait in split</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	(< or >)	(2-998) ^d (0-998) ^d	
	<u>staffed-agents in split</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	(< or >)	(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> (mon, tue, wed, thur, fri, sat, sun, all)	<u>to</u> (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> ^e			

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 Call Prompting feature must be enabled.

c. The pound sign (#) is only available with G3V3 and later switches.

d. Even numbers only.

e. This command is also available with Call Prompting.

Table 8-2: Vector Commands — Generic 3 (Contd)

EAS only				
<u>goto step</u> ^a	_____ if available-agents in skill (1-32)	(1-24 [specific: G3vs/sV2]) (1-99 [specific: G3iV2]) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])	_____ (< or >)	_____ (1-150 [G3vs/sV2], 1-200 [G3iV2], 1-999 [G3rV2]) (0-149 [G3vs/sV2], 0-199 [G3iV2], 0-998 [G3rV2])
	<u>calls-queued in skill</u>	(1-24 [specific: G3vs/sV2]) (1-99 [specific: G3iV2]) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])	<u>pri</u> _____ (low, med, high, top)	_____ (< or >) (1-200 [G3vs/s/iV2], 1-999 [G3rV2]) (0-199 [G3vs/s/iV2], 0-998 [G3rV2])
	<u>digits equal</u> ^b	(1-16 characters: 0-9, #) ^c		
	<u>oldest-call-wait in skill</u>	(1-24 [specific: G3vs/sV2]) (1-99 [specific: G3iV2]) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])	_____ (< or >)	_____ (2-998) ^d (0-998) ^d
	<u>staffed-agents in skill</u>	(1-24 [specific: G3vs/sV2]) (1-99 [specific: G3iV2]) (1-255 [specific: G3rV2]) (1st, 2nd, 3rd [VDN])	_____ (< or >)	_____ (1-150 [G3vs/sV2], 1-200 [G3iV2], 1-999 [G3rV2]) (0-149 [G3vs/sV2], 0-199 [G3iV2], 0-998 [G3rV2])
	<u>time-of-day is</u>	_____ (mon, tue, wed, thur, fri, sat, sun, all)	_____ to _____ (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> ^e			

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 Call Prompting feature must be enabled.

c. The pound sign (#) is only available with G3V3 and later switches.

d. Even numbers only.

e. This command is also available with Call Prompting.

Table 8-3: Vector Commands — Generic 3 Version 4

<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> _____ (1- to 5-digit extension or none [default])
<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])
EAS only <u>messaging skill</u> ^a _____ for extension _____ (1-24 [specific: G3vs/s]) (1- to 5-digit extension, active, latest [default]) ^b (1-99 [specific: G3i]) (1-255 [specific: G3r]) (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 8-3: Vector Commands — Generic 3 Version 4 (Contd)

<u>queue-to main split</u> _____ pri ____ (1-24 [G3vs/s]) (low, med, (1-99 [G3i]) high, top) (1-255 [G3r])						
EAS only						
<u>queue-to main skill</u> _____ pri ____ (1-24 [specific: G3vs/s]) (low, med, (1-99 [specific: G3i]) high, top) (1-255 [specific: G3r]) (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, which may include ~p, ~s, ~w, ~W, ~m, *, or #)		(y or n [default])	(<, >, <=, >=) (< >, =)	(0-9) (0-9, #)
					<u>unconditionally</u> ^b	
<u>stop</u> ^b						
<u>wait-time</u> ^b	_____	secs hearing	_____			
	(0-998) ^c		(continue, 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 ISDN (Integrated Services Digital Network) 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.

Table 8-3: Vector Commands — Generic 3 Version 4 (Contd)

<u>check-backup split</u>	<u> </u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	<u>pri __if</u> (low, med, high, top)	<u>rolling-asa</u>	<	<u> </u> (2-998) ^a
			<u>available-agents</u>	>	<u> </u> (0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
			<u>calls-queued</u>	<	<u> </u> (1-200 [G3i/vs/s]) (1-999 [G3r])
			<u>expected-wait</u>	<	<u> </u> (1-9999)
			<u>oldest-call-wait</u>	<	<u> </u> (2-998) ^a
			<u>staffed-agents</u>	>	<u> </u> (0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
			<u>unconditionally</u>		

EAS only					
<u>check-backup skill</u>	<u> </u> (1-24 [specific: G3vs/s]) (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1st, 2nd, 3rd [VDN])	<u>pri __if</u> (low, med, high, top)	<u>rolling-asa</u>	<	<u> </u> (2-998) ^a
			<u>available-agents</u>	>	<u> </u> (0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
			<u>calls-queued</u>	<	<u> </u> (1-200 [G3vs/s/i]) (1-999 [G3r])
			<u>expected-wait</u>	<	<u> </u> (1-9999)
			<u>oldest-call-wait</u>	<	<u> </u> (2-998) ^a
			<u>staffed-agents</u>	>	<u> </u> (0-149 [G3vs/s]) (0-199 [G3i]) (0-998 [G3r])
			<u>unconditionally</u>		

a. Even numbers only.

Table 8-3: Vector Commands — Generic 3 Version 4 (Contd)

<u>converse-on split</u>	_____	pri ____	passing	<u>DATA 1</u> ^a	and	<u>DATA 2</u>
	(1-24 [G3vs/s])	(low, med,		(string of		(string of
	(1-99 [G3i])	high, top)		up to six		up to six
	(1-255 [G3r])			digits or		digits or
				asterisks,		asterisks,
				"vdn,"		"vdn,"
				"ani,"		"ani,"
				"digits," ^b		"digits," ^b
				"qpos,"		"qpos,"
				"wait," ^c		"wait," ^c
				"#," or		"#," or
				"none")		"none")

EAS only						
<u>converse-on skill</u>	_____	pri ____	passing	<u>DATA 1</u> ^a	and	<u>DATA 2</u>
	(1-24 [specific: G3vs/s])	(low, med,		(string of		(string of
	(1-99 [specific: G3i])	high, top)		up to six		up to six
	(1-255 [specific: G3r])			digits or		digits or
	(1st, 2nd, 3rd [VDN])			asterisks,		asterisks,
				"vdn,"		"vdn,"
				"ani,"		"ani,"
				"digits," ^b		"digits," ^b
				"qpos,"		"qpos,"
				"wait," ^c		"wait," ^c
				"#," or		"#," or
				"none")		"none")

a. If DATA 1 is administered as "none," DATA 2 must also be administered as "none."

b. The Call Prompting feature must be enabled.

c. The Vectoring (G3V4 Enhanced) option must be enabled.

Table 8-3: Vector Commands — Generic 3 Version 4 (Contd)

<u>goto step</u> ^a	<u>if</u>	<u>ani</u> ^b (1-32)	(<u><</u> , <u>></u> , <u><=</u> , <u>>=</u>) ^c (<u><</u> <u>></u> , <u>=</u>)	(1-16 characters: 0-9) (1-16 characters: 0-9, ?, +, none) ^d
		<u>ani</u> ^b	(in, not-in)	table (1-5 [G3vs/s]) (1-10 [G3i]) (1-100 [G3r])
	<u>rolling-asa for</u> ^e	<u>vdn</u>	(VDN, active, latest) ^f	(<u><</u> , <u><=</u>) (<u>></u> , <u>>=</u> , <u><</u> <u>></u> , <u>=</u>) (2-998) ^g (0-998) ^g
	<u>rolling-asa for</u> ^e	<u>split</u>	(1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	(<u><</u> , <u><=</u>) (<u>></u> , <u>>=</u> , <u><</u> <u>></u> , <u>=</u>) (2-998) ^g (0-998) ^g
	<u>available-agents in split</u>	(1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	(<u><</u> , <u><=</u>) (<u>></u> , <u>>=</u> , <u><</u> <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>calls-queued in split</u>	(1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	<u>pri</u> <u>low</u> , <u>med</u> , <u>high</u> , <u>top</u>	(<u><</u> , <u><=</u>) (<u>></u> , <u>>=</u> , <u><</u> <u>></u> , <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	(VDN, active, latest) ^f	(<u><</u> , <u><=</u>) (<u>></u> , <u>>=</u> , <u><</u> <u>></u> , <u>=</u>)	(1-999) (0-999)
	<u>digits</u> ^h	(in, not-in)	table	(1-5 [G3vs/s]) (1-10 [G3i]) (1-100 [G3r])
	<u>digits</u> ^h	(<u><</u> , <u>></u> , <u><=</u> , <u>>=</u>) (<u><</u> <u>></u> , <u>=</u>)	(1-16 characters: 0-9) (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 8-3: Vector Commands — Generic 3 Version 4 (Contd)

<u>goto step</u> ^a	<u>if</u> (1-32)	<u>expected-wait for</u> ^b	<u>split</u> (1-24 [G3vs/s]) (1-99 [G3i]) (1-255 [G3r])	<u>pri</u> <u>low, med, high, top</u> (low, med, high, top)	<u><, <=</u> (<, <=, < >, =)	<u>(1-9999)</u> (0-9999)
		<u>expected-wait for</u> ^b	<u>call</u> (<u><, <=</u>) ^c (<u>>, >=, < >, =</u>)	<u>(1-9999)</u> (0-9999)		
		<u>ii-digits</u> ^d	<u>(in, not-in)</u>	<u>table</u> (1-5 [G3vs/s]) (1-10 [G3i]) (1-100 [G3r])		
		<u>ii-digits</u> ^d	<u>(<u><, >, <=, >=</u>)</u> (<u>< >, =</u>)	<u>(00-99)</u> (00-99, +, +?, ?+, ??, ?x (where x = 0-9), x?, none] ^e		
		<u>oldest-call-wait in split</u>	<u>(1-24 [G3vs/s])</u> (1-99 [G3i]) (1-255 [G3r])	<u>pri</u> <u>low, med, high, top</u> (low, med, high, top)	<u><, <=</u> (<u>>, >=, < >, =</u>)	<u>(2-998)^f</u> (0-998) ^f
		<u>staffed-agents in split</u>	<u>(1-24 [G3vs/s])</u> (1-99 [G3i]) (1-255 [G3r])	<u><, <=</u> (<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>time-of-day is</u>	<u>(mon, tue, wed, thur, fri, sat, sun, all)</u>	<u>to</u> (hh:mm in military time or am/pm)	<u>(mon, tue, wed, thur, fri, sat, sun, all)</u>	<u>(hh:mm in military time or am/pm)</u>
		<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.

Table 8-3: Vector Commands — Generic 3 Version 4 (Contd)

EAS only				
<u>goto step</u> ^a	<u>if</u> (1-32)	<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>skill</u>	<u>(1-24 [specific: G3vs/s])</u> (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1st, 2nd, 3rd [VDN])	<u>(<, <=)</u> (>, >=, < >, =) (2-998) ^g (0-998) ^g
	<u>available-agents in skill</u>	<u>(1-24 [specific: G3vs/s])</u> (1-99 [specific: G3i]) (1-255 [specific: G3r]) (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]) (1st, 2nd, 3rd [VDN])	<u>pri</u> (low, med, high, top) (<, <=) (>, >=, < >, =)	<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	

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 8-3: Vector Commands — Generic 3 Version 4 (Contd)

EAS only					
<u>goto step</u> ^a	<u>if</u> (1-32)	<u>expected-wait for</u> ^b	<u>skill</u> (1-24 [specific: G3vs/s]) (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1st, 2nd, 3rd [VDN])	<u>pri</u> (low, med, high, top)	<u>(<, <=)</u> ^c (>, >=, <>, =) (1-9999) (0-9999)
		<u>expected-wait for</u> ^b	<u>call</u> (<, <=) (>, >=, <>, =)		(1-9999) (0-9999)
		<u>ii-digits</u> ^d	<u>(in, not-in)</u>	<u>table</u> (1-5 [G3vs/s]) (1-10 [G3i]) (1-100 [G3r])	
		<u>ii-digits</u> ^d	<u>(<, >, <=, >=)</u> (<>, =)	<u>(00-99)</u> [00-99, +, +?, ?+, ??, ?x (where x = 0-9), x?, none] ^e	
		<u>oldest-call-wait in skill</u>	<u>(1-24 [specific: G3vs/s])</u> (1-99 [specific: G3i]) (1-255 [specific: G3r]) (1st, 2nd, 3rd [VDN])	<u>pri</u> (low, med, high, top)	<u>(<, <=)</u> (>, >=, <>, =) (2-998) ^f (0-998) ^f
		<u>staffed-agents in skill</u>	<u>(1-24 [specific: G3vs/s])</u> (1-99 [specific: G3i]) (1-255 [specific: G3r]) (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>time-of-day is</u>	<u>(mon, tue, wed, thur, fri, sat, sun, all)</u>	<u>to</u> (hh:mm in military time or am/pm)	<u>(mon, tue, wed, thur, fri, sat, sun, all)</u> (hh:mm in military time or am/pm)
		<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.

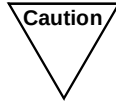
d. The Vectoring (ANI/II-Digits Routing) and Vectoring (G3V4 Enhanced) options must be enabled.

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, in the Vector field, the number or name of the vector you want to add. 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 8-1 for System 85/Generic 2, Table 8-2 for Generic 3, or Table 8-3 for 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, in the Vector field, the number or name of the vector you want to copy from, and 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, in the **Vector** field, the vector name or number you want to change, and 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 15/32 steps.

Deleting a Vector's Contents

1. On a blank Vector Contents window, enter, in the Vector field, the name or number of the vector for which you want to delete the contents.

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 using **Ctrl Z**.

Split References in Vectors (System 85/Generic 2 with Vectoring Only)

Note If you do not have a System 85/Generic 2 and the Call Vectoring feature, the Split References in Vectors window is **not** available.

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.
-

Input Window

Use the Split References in Vectors window (Figure 8-34) to display vectors that reference a particular split with the “queue to main split” and/or “check backup split” commands.

The screenshot shows a window titled "ACD Admin: Split References in Vectors" with a subtitle "ACD1". The window has a status bar at the top showing "03/20/95 08:30 AM", "CentreVu(TM) CMS", and "Windows 1 of 1 ^". The main area contains a "Split:" label followed by a text input field and a "Run" button. Below this is a "Report destination (Select one):" section with three options: "<x> Terminal", "< > Printer, Printer name" followed by a text input field, and "< > File," followed by a "File name:" label and a text input field.

Figure 8-34: Split References in Vectors Window (System 85/Generic 2 with Vectoring)

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/*Solaris* system (/usr/<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 8-35 shows an example of the Split References in Vectors report.

```
Split References in Vectors
                                     Printed 03/20/95
                                     08:35PM
Split: sales_____
Vector No.   Vector Name           Main   Backup
122          goldcardsplit1        x
```

Figure 8-35: Split References in Vectors Report

General Information

Audience

Chapter 9 is written for *CentreVu*™ Call Management System (*CentreVu* CMS) administrators who are responsible for setting up new users on the *CentreVu* CMS system.

Introduction

From the User Permissions subsystem (Figure 9-1), the *CentreVu* CMS administrator can assign:

- *CentreVu* CMS users their user ID, 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 SLK menu items.
- Split/skill, trunk group, and automatic call distribution (ACD) access permissions.
- Access permissions to VDNs and vectors if you have purchased the Vectoring feature.

You are given a *CentreVu* CMS administrator login ID at installation 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, 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 to administer Split 1 and Trunk Groups 22 and 23 effectively.

Note

Only assign access permissions for what your call center really needs. If a *CentreVu* CMS user has the *CentreVu* CMS default permissions (that is, **no** access), do not add access permission in the read and write fields. *CentreVu* CMS does not store records of split/skill, trunk groups, VDN, and vector access permissions until you enter the permissions in the appropriate window(s). This way of storing permissions saves disk space. Also, you could wait a long time for a complete list of users' permissions if you administer records for those users with the default permissions.

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 9-1.

Note

If you have not purchased the Vectoring feature, the Vector Access and VDN Access selections are not available.

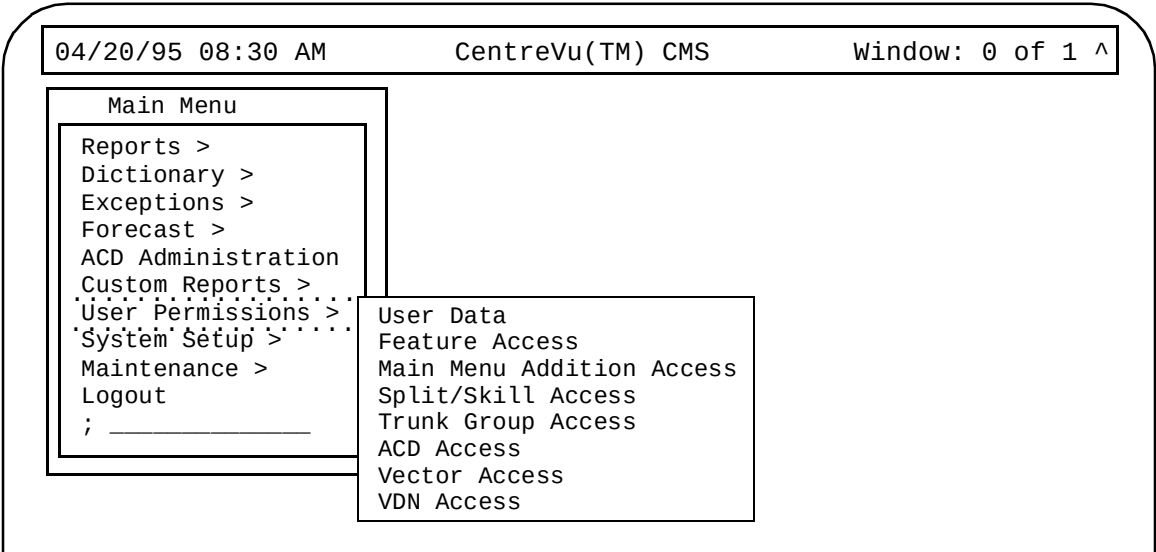


Figure 9-1: User Permissions Menu

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*, and administer the maximum number of open windows, the minimum refresh rate for real-time reports, and the default login ACD.

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 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, do a **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.

† 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 user attempts to log into *CentreVu* CMS, an Acknowledgment window appears telling the user to either 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 or *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.
- `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 (`/cms/bin`), 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 the deleted user has custom reports or timetables, 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 or timetables. 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:
 - And the user was added via *CentreVu* CMS, all files owned by the deleted user are removed unless you have previously moved the files to another directory or removed them yourself.
 - The timetable fails if you have not moved or removed the timetables or custom reports owned by the deleted user.
- 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 ACD Access 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 11, “Maintenance—Printer Administration.”
-

Relationships to Other Subsystems

Real-Time Reports

The default minimum refresh rate in the real-time report input windows is 15 seconds greater than the number of seconds administered as the refresh rate in the User Permissions subsystem. 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 processor occupancy of the computer should be considered when selecting the refresh rate for real-time reports. See “Refresh Rates for Real-Time Reports” in Chapter 3.

Timetable

The User Data window can be placed on a timetable. See Chapter 5, “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 the user does not have an existing *UNIX* system/*Solaris* system login ID, *CentreVu* CMS automatically creates one when you add the user.

Input Window

To assign user data information, you must complete the User Data window (Figure 9-2). See Table 9-1 for descriptions of the fields on this input window.

04/20/95 08:30 AM		CentreVu(TM) CMS		Window: 1 of 1 ^	
User Permissions: User Data			All ACDs		
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__			Add Delete Find one List all Modify Next Previous		

Figure 9-2: User Data Window

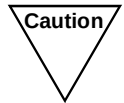
Input Fields

Table 9-1 includes definitions for and directions on completing all fields on the User Permissions: User Data input window. See Figure 9-2 for an example of the input window.

Table 9-1: User Data Input Fields

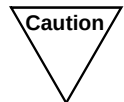
Field	Definition
User ID:	Enter the <i>UNIX</i> system/ <i>Solaris</i> system login identification for the user you are adding, modifying, viewing, or deleting. The User ID must have three to eight lowercase, alphanumeric characters, with no blanks (no special characters are allowed).
User name: (Optional)	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 <i>cms</i> and <i>cmssvc</i> 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. 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.

Field	Definition
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 this 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 here affect what that person is able to do with *CentreVu* CMS.

Things to Know Before You Start

- You cannot change or delete feature access permissions for `cms` and `cmsvc` 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 AT&T Services organization.
- If you modify the read permission for Feature Access, the change takes effect when the user logs out and back in again.
- If you modify the write permission for Feature Access, the change takes effect when the user reopens a window in which the access permission is checked.

You can create other administrator login IDs and modify the permissions for those login IDs at any time.

- Default feature access permissions are assigned when a user login ID is added. *CentreVu* CMS administrator login IDs have defaults of **y** (yes) for all, and normal *CentreVu* CMS users have defaults of yes for all 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.
- Whenever you change a user's permissions, the change does not occur until the user logs out and then back in or enters a subsystem through the Main Menu.
- Shortcut does not require read or write permission. See the Shortcut section in Chapter 5, "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 permissions for any user, you must enter an ID for the user into *CentreVu* CMS. 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 Feature Access window.

Relationships to
Other
Subsystems

Timetable
The Feature Access window can be placed on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

To modify Feature Access permissions for a user, you must complete the Feature Access window (Figure 9-3). See Table 9-2 for descriptions of the fields on this input window.

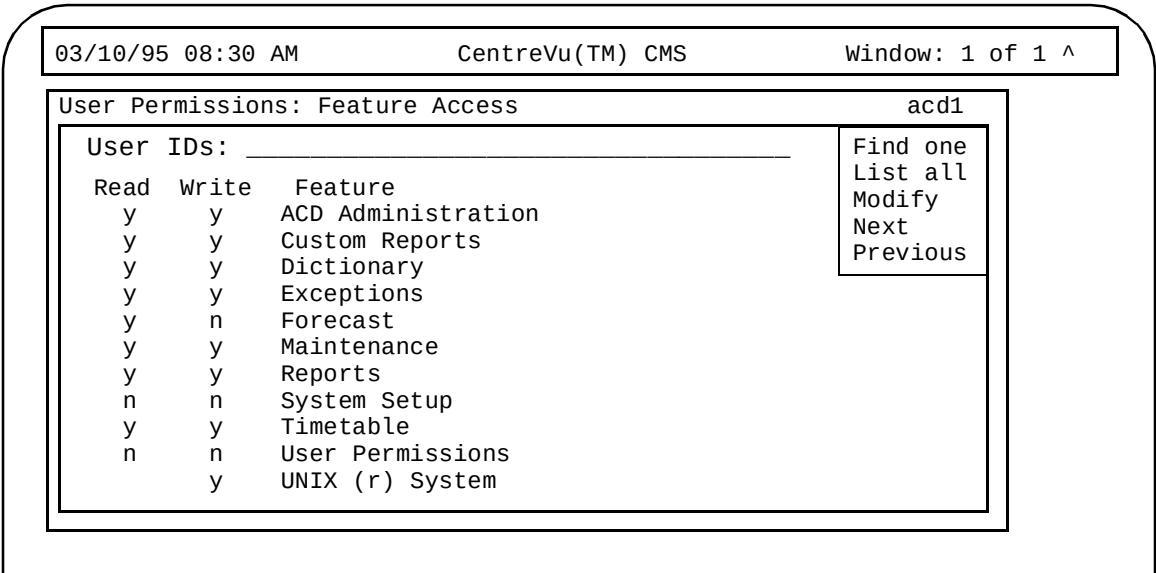


Figure 9-3: Feature Access—Normal *CentreVu* CMS User

Input Fields

Table 9-2 includes definitions for and directions on completing all fields on the User Permissions: Feature Access input window. See Figure 9-3 for an example of the input window.

Table 9-2: Feature Access Input Fields

Field	Definition
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, 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. You cannot assign a user write permission <i>without read</i> 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.

Main Menu Addition Access

From this window, you will assign, view, or modify user access permissions for the additional menu items of your choosing. These items could be 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 Main Menu item does not appear on the user's Main Menu.
 - If you **Modify** the Main Menu Addition access, the change takes effect when the user logs out and 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 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 a change to the Main Menu Additions Access window.
 - You must first add the menu additions before you can grant permissions to them. See Chapter 10, “System Setup—Main Menu Addition.”
-

Relationships to Other Subsystems

Timetable

This window can be placed on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

To assign Main Menu Addition Access permissions for a user, you must complete this window (Figure 9-4). See Table 9-3 for descriptions of the fields on this input window.

04/20/95 08:30 AM

CentreVu(TM) CMS

Window: 1 of 1 ^

User Permissions: Main Menu Addition Access

acd1

Available Additions:

Find one

List all

Modify

Next

Previous

User IDs: _____

Addition: _____

Access (y/n): __

Figure 9-4: Main Menu Addition Access Window

Input Fields

Table 9-3 includes definitions for and directions on completing all fields on the User Permissions: Main Menu Addition Access input window. See Figure 9-4 for an example of the input window.

Table 9-3: Main Menu Addition Access Input Fields

Field	Definition
Available Additions: (Display only field)	Displays the available Main Menu additions.
User IDs:	Enter the ID(s) of the user whose access permissions you want to modify or view.
Addition:	Enter the name(s) 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 (yes) or n (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 will assign, view, modify, or delete a user's access permissions to specific splits/skills. Split/Skill Access permissions determine a *CentreVu* CMS user's ability to access and administer agent/queue 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

- 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 Main Menu.
- 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.
- 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 **no** 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.

- Since you turn on the exception notification in this window, you will want to define the exception conditions for splits/skills in the Exceptions subsystem. See Chapter 7, "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 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, you receive an Acknowledgment when you make a change that indicates the user does not have ACD access for the split(s)/skill(s). Therefore, any change you make has no immediate effect (that is, until the user's ACD access permissions change).

- 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 5, "Timetable and Shortcut."

Input Window

To assign, modify, delete, or view Split/Skill Access permissions for a user, you must complete this window (Figure 9-5). See Table 9-4 for descriptions of the fields on this input window.

Figure 9-5: Split/Skill Access Window

Input Fields

Table 9-4 includes definitions for and directions on completing all fields on the User Permissions: Split/Skill Access input window. See Figure 9-5 for an example of the input window.

Table 9-4: Split/Skill Access Input Fields

Field	Definition
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 (yes) if this user <i>will</i> have read permission for the split(s)/skill(s), or enter n (no) if this user will <i>not</i> have read permission for the split(s)/skill(s).
Write (y/n):	Enter y (yes) if this user will have write permission for the split(s)/skill(s), or enter n (no) if this user will <i>not</i> have write permission for the split(s)/skill(s). If you assign write permission, you must also assign this user read permission.
Exceptions (y/n):	Enter y (yes) if this user will receive split/skill exceptions for the given split(s)/skills(s), or enter n (no) if this user will not receive an exception notification. The notification is either an audio (beep) 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 7, “Exceptions—Selecting Your Exception Notification.”

Trunk Group Access

From the Trunk Group Access window, you will 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 Main Menu.
- You receive an Acknowledgment if you try to change access permissions for a user who does not have the correct ACD access permissions.
- **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 is **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). Therefore, any change you make does not have any immediate effect (that is, until the user's ACD access permissions change).

- You need **write** permission for the User Permissions subsystem to make any type of a change to the Trunk Group Access window.
- Since you turn on the exception notification in this window, you need to define the exception conditions for trunk groups in the Exceptions subsystem. See Chapter 7, “Exceptions.”

Relationships to
Other
Subsystems

Timetable

The Trunk Group Access window can be placed on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

To assign Trunk Group Access permissions for a user, you must complete this window (Figure 9-6). See Table 9-5 for descriptions of the fields on this input window.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 1 ^

User Permissions: Trunk Group Accessacd1

User ID: _____

Trunk Groups: _____

Read (y/n): __

Write (y/n): __

Exceptions (y/n): __

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 9-6: Trunk Group Access Window

Input Fields

Table 9-5 includes definitions for and directions on completing all fields on the User Permissions: Trunk Group Access input window. See Figure 9-6 for an example of the input window.

Table 9-5: Trunk Group Access Input Fields

Field	Definition
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 (yes) if this user <i>will</i> have read permission for the trunk group(s), or n (no) if this user will <i>not</i> have read permission for the trunk group(s).
Write (y/n):	Enter y (yes) if this user will have write permission for the trunk group(s), or n (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.
Exceptions (y/n):	Enter y (yes) if this user will receive trunk group exceptions, or n (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 7, “Exceptions—Selecting Your Exception Notification.”

ACD Access

You will assign, view, delete, and modify a user's ability to access real or pseudo ACDs. This could be just one ACD or several. You will also turn on or off the exceptions notification for ACDs in this window.

Things to Know Before You Start

- The default permissions 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 Main Menu.
- 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, an Acknowledgment is displayed that indicates the user does not have ACD access, and the change does not 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.
- Since you turn on the exception notification in this window, you need to define the exception conditions for the ACD in the Exceptions subsystem. See Chapter 7, "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 ACD Access window can be placed on a timetable. See Chapter 5, "Timetable and Shortcut."

Input Window

To assign ACD Access permissions, you must complete this window (Figure 9-7). See Table 9-6 for descriptions of the fields on this input window.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 1 ^

User Permissions: ACD Accessacd1

User ID: _____

ACDs: _____

Read (y/n): ____

Write (y/n): ____

Exceptions (y/n): ____

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 9-7: ACD Access Window

Input Fields

Table 9-6 includes definitions for and directions on completing all fields on the User Permissions: ACD Access input window. See Figure 9-7 for an example of the input window.

Table 9-6: ACD Access Input Fields

Field	Definition
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 an n (no) if this user will <i>not</i> have read permission for the ACD(s)—real or pseudo, or enter a y (yes) if this user <i>will</i> have read permission for the ACD(s)—real or pseudo.
Write (y/n):	Enter an n (no) if this user will <i>not</i> have write permission for the ACD(s), or enter a y (yes) if this user <i>will</i> have write permission for the ACD(s). If you assign write permission, you must also assign this user read permission.
Exceptions (y/n):	Enter n (no) if this user will not receive exceptions, or enter y (yes) if this user will 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 7, “Exceptions—Selecting Your Exception Notification.”

Vector Access

Note

Vector access is only available 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 9-8) 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-only permission
 - Read and write permission for a vector.
- You *cannot* assign a user **write** permission without also assigning **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. 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.

Input Window

To assign Vector Access permissions, you must complete this window (Figure 9-8). See Table 9-7 for descriptions of the fields on this input window.

The screenshot shows a window titled "User Permissions: Vector Access" with a user ID of "acd1". The window contains several input fields and a menu of actions.

User Permissions: Vector Access		acd1
User ID: _____		Add Delete Find one List all Modify Next Previous
Vectors: _____		
Read (y/n): __		
Write (y/n): __		
Exceptions (y/n): __		

Figure 9-8: Vector Access Window

Input Fields

Table 9-7 includes definitions for and directions on completing all fields on the User Permissions: Vector Access input window. See Figure 9-8 for an example of the input window.

Table 9-7: Vector Access Input Fields

Field	Definition
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 (yes) if this user will have read permission for the vector(s). Enter n (no) if this user will <i>not</i> have read permission for the vector(s).
Write (y/n):	Enter y (yes) if this user will have write permission for the vector(s). Enter n (no) if this user will <i>not</i> have write permission for the vector(s).
Exceptions (y/n):	Enter y (yes) if this user will receive vector exception notices, or enter n (no) if this user will <i>not</i> receive vector exception notices. 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 7, "Exceptions."

VDN Access

Note

VDN access is only available 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 9-9) 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, or
 - Read and write 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 is **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.

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 assign (on the ACD Access window) the user's ACD access. Without access to a specific ACD, the user cannot access the VDNs for that ACD.
- You must have **write** permission for the User Permissions subsystem.

Input Window

To assign VDN Access permissions, you must complete this window (Figure 9-9). See Table 9-8 for descriptions of the fields on this input window.

03/20/95 08:30 AMCentreVu(TM) CMSWindow: 1 of 1 ^

User Permissions: VDN Accessacd1

User ID: _____

VDNS: _____

Read (y/n): __

Write (y/n): __

Exceptions (y/n): __

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 9-9: VDN Access Window

Input Fields

Table 9-8 includes definitions for and directions on completing all fields on the User Permissions: VDN Access input window. See Figure 9-9 for an example of the input window.

Table 9-8: VDN Access Input Fields

Field	Definition
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 (yes) if this user will have read permission for the VDN(s), or enter n (no) if this user will <i>not</i> have read permission for the VDN(s).
Write (y/n):	Enter y (yes) if this user will have write permission for the VDN(s), or enter n (no) if this user will <i>not</i> have write permission for the VDN(s).
Exceptions (y/n):	Enter y (yes) if this user will receive VDN exception notices, or enter n (no) if this user will <i>not</i> receive VDN exception notices. 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 7, “Exceptions”.

General Information

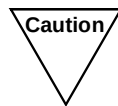
Audience

Chapter 10 is written for *CentreVu*™ Call Management System (*CentreVu* CMS) administrator who is responsible for configuring the setup of the *CentreVu* CMS installation.

Introduction

From the System Setup subsystem (Figure 10-1), 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 an ACD or 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), and define what days of the week constitute a week for your call center (for example, Monday through Friday).
- Specify what and how much agent data to store for later use in the Agent Trace historical report.
- Add 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.
- Migrate data from R3 CMS to *CentreVu* CMS.



The System Setup subsystem is not a subsystem you should be working in 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 Menu

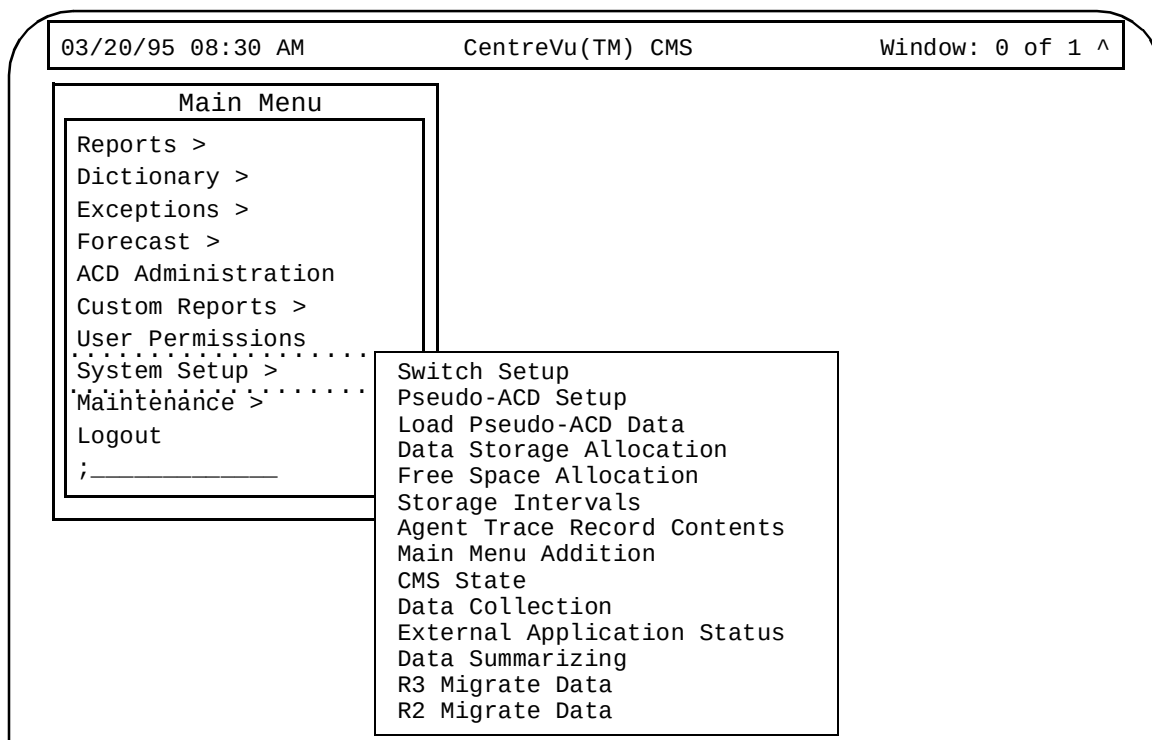


Figure 10-1: System Setup Menu

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 single-user mode, with data collection off.

- Data Storage Allocation
- Free Space Allocation
- Storage Intervals
- Agent Trace Record Contents.

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.
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, Agent Trace Record Contents, Call Work Codes, or Data Storage AllocationData Storage Allocation in the Forecast subsystem), you may want to use the Disk 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` program. 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
- *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 does not accept pseudo-ACD names or numbers in the ACD field. It is only for the *live* (real) ACDs, not pseudo-ACDs.
- When you select **List all** or **Find one**, the Phantom Abandon Call Timer value for the ACD(s) is shown.
- 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 9, “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 6, “Dictionary—ACDs.”

Input Window

View this window (Figure 10-2) to see your switch name, switch release, and whether you have Call Vectoring or Call Prompting. See Table 10-1 for descriptions of the fields on this input window.

03/20/95 08:30 AM		CentreVu(TM) CMS		Window 1 of 4 ^	
System Setup: Switch Setup					
ACDs: _____			Find one		
Switch type: DEFINITY			List all		
Switch release: G3V4			Modify		
			Next		
			Previous		
Purchased CMS release and version: CentreVu(TM) CMS R3V4					
CentreVu CMS load: CentreVu CMS ruka					
Phantom abandon call timer (seconds): 8					
Features:					
Vectoring					
Expert Agent Selection (EAS)					

Figure 10-2: Switch Setup Window

Input Fields

Table 10-1 includes definitions for and directions on completing all fields on the System Setup: Switch Setup input window. See Figure 10-2 for an example of this input window.

Table 10-1: Switch Setup Input Fields

Field	Definition
ACDs:	Enter the name or number of the ACD you want to view.
Switch type: (Display only)	Displays the switch type (<i>DEFINITY</i> [®] , System 85).
Switch release: (Display only)	Displays the switch release (G1.1, G3i, G2.1, R2V4, G3r, etc.).
Purchased CMS release and version: (Display only)	Displays the CMS release and version, for example CentreVu (TM) CMS R3V4.
CentreVu CMS load: (Display only)	Displays the <i>CentreVu</i> CMS load name, including the field update section of the load number.
Phantom abandon call timer: (Display only)	Displays the value of the phantom abandon call timer, available with Generic 3 Version 4 and later switches. 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 setup script. Valid values are zero through ten. A value of zero means that the timer is off, and <i>CentreVu</i> CMS is not collecting data on phantom abandon calls.
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 model ACD (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 on another CMS using this window.

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 (like 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 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	Error Log Report
	Storage Intervals	
Custom Reports	Agent Trace Record Contents	
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.
- 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:

- 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.
- You must have **read** permission for the System Setup subsystem to view the Pseudo-ACD Setup window. See Chapter 9, “User Permissions—Feature Access.”
- You must have **write** permission for the System Setup subsystem to create pseudo-ACDs. See Chapter 9, “User Permissions—Feature Access.”

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 11, “Maintenance—Back Up Data.”
- Define a synonym for your pseudo-ACD in dictionary.
- See if there is enough free space 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 “Storage Intervals” in this chapter.

- Change access permissions as appropriate for the pseudo-ACD (see Chapter 9, “User Permissions—ACD Access”).
-

Relationships to Other Subsystems

Maintenance

The Back Up 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 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 single-user mode.

User Permissions

You should turn off permissions to the pseudo-ACD before deleting 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 5, “Timetable and Shortcut.”

Input Window

You must complete the Pseudo-ACD Setup window (Figure 10-3) to create a pseudo-ACD. See Table 10-2 for descriptions of the fields on this input window.

03/20/95 08:30 AM

CentreVu(TM) CMS

Window 1 of 4 ^

System Setup: Pseudo-ACD Setup

ACD: _____

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 10-3: Pseudo-ACD Setup Window

Input Fields

Table 10-2 includes definitions for and directions on completing all fields on the System Setup: Pseudo-ACD Setup input window. See Figure 10-3 for an example of this input window.

Table 10-2: Pseudo-ACD Setup Input Fields

Field	Definition
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. With all other action list items, you can enter the ACD name.

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. You do this from the **Commands** SLK menu by selecting Options, then Current ACD. 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 much more than you need (which could create disk space problems, etc.). 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 exist.

- **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 between the specified start and stop dates in this window.

Prerequisite System Administration

Before you load the pseudo-ACD data, do the following:

- Do a backup to generate 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 "Storage Intervals" in this chapter.

- If desired, change access permissions for the pseudo-ACD in the User Permissions subsystem, ACD Access window (see Chapter 9, “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 Back Up 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 5, “Timetable and Shortcut.”

Input Window

You must complete the Load Pseudo-ACD Data window (Figure 10-4) to load data into the pseudo-ACD created in the Pseudo-ACD Setup window. See Table 10-3 for descriptions of the fields on this input window.

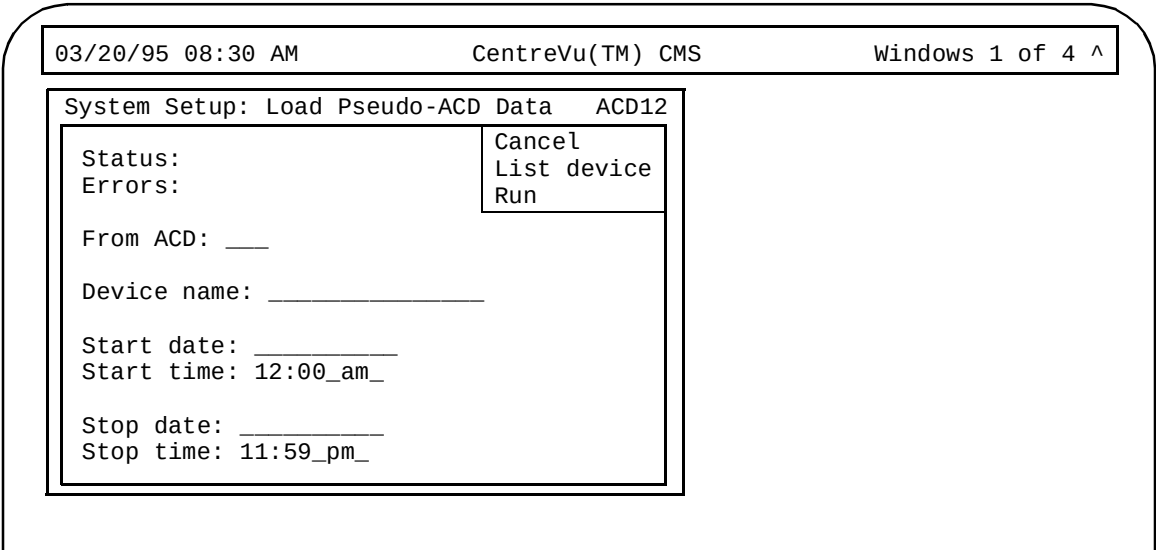


Figure 10-4: Load Pseudo-ACD Data Window

Input Fields

Table 10-3 includes definitions for and directions on completing all fields on the System Setup: Load Pseudo-ACD Data input window. See Figure 10-4 for an example of the input window.

Table 10-3: Load Pseudo-ACD Data Input Fields

Field	Definition
Status: (Display only)	Displays the status of the data being loaded to the pseudo-ACD.
Errors: (Display only)	Displays any errors found while loading the pseudo-ACD data.
From ACD:	Enter the ACD number 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 11, "Maintenance."
Start date:	Enter the date that is contained on the volume which you want to load to the pseudo-ACD. The start date tells <i>CentreVu</i> CMS which date to look for on the backup volume and to begin at this point loading data to the pseudo-ACD.
Start time: (Default is 12:00 a.m.)	Enter the time for which you want to start loading data to the pseudo-ACD. The time tells <i>CentreVu</i> CMS which time to look for on the backup volume and to begin at this point loading data to the pseudo-ACD. The start/stop time is inclusive.
Stop date: (Required)	Enter the date at which you want to stop loading 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 a.m.)	Enter the time you want to stop loading 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. The start/stop time is inclusive.

Data Storage Allocation

The Data Storage Allocation window allows you to specify how much and how long data are saved by *CentreVu* CMS. This affects disk space and is limited by your specific system configuration. Initially, 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 or you can change those maximums to meet your specific needs. You also enter shift times 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 table.

Note In order to better manage disk space requirements, this window asks for the times and numbers of agents logged into each shift (up to four shifts).

The Data Storage Allocation requirements vary from installation to installation. You have to determine your *CentreVu* CMS data requirements based on the following:

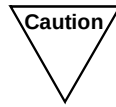
- Available disk space on your specific system configuration.
- The number of ACDs (the real ACD and pseudo-ACDs) on the system.
- The size of the real ACD and all pseudo-ACDs (number of agents, trunks, etc.).
- The length of time for data to be stored (for example, 30 days versus 100 days versus 2 years).

Note When you change the switch parameters using *swsetup* (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 vectoring, you need to allocate space for VDNs and vectors in order 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.

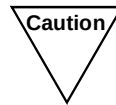
The historical database will probably use the most disk space. You can use the Data Storage Allocation window to reduce the amount of historical data being saved.

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 RAM will be reallocated. *It is recommended that you print a copy of this window prior to modifying.*

If you are currently doing a **Modify**, **do not** open another Data Storage 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 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, 260 weeks, 60 months)
 - Weekly/Monthly Storage — 10 years (3650 days, 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

- 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.)
- *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 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 successfully, the status line reads **Successful** and you can restore *CentreVu* CMS to the multi-user state.

- Data collection for all *real* ACDs must be off if you want to change data storage parameters. Turn data collection on and off in the Data Collection window (see Data Collection later in this chapter). After 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.
-

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, you cannot run a weekly or monthly historical report.

Input Window

To change the allocated amount of storage space used when collecting historical data, you must complete the Data Storage Allocation window (Figure 10-5). This window displays the values set during installation of your *CentreVu* CMS. See Table 10-4 for descriptions of the fields on this input window.

03/20/95 08:30 AM
CentreVu(TM) CMS
Window 1 of 4 ^

System Setup: Data Storage Allocation

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 (1-60)	60	7	31	0	0
Agents		7	31	0	0
Trunk Groups (0-255)	99	7	31	0	0
Trunks (0-2000)	600	7	31	0	0
Call Work Codes (0-1999)	200	7	31	4	2
Vectors (0-511)	256	7	31	0	0
VDNs (0-2000)	500	7	31	0	0

Shift 1 Times: xx:xxAM-xx:xxAM Maximum agents logged in: ____

Shift 2 Times: xx:xxAM-xx:xxPM Maximum agents logged in: ____

Shift 3 Times: xx:xxPM-xx:xxPM Maximum agents logged in: ____

Shift 4 Times: xx:xxPM-xx:xxAM Maximum agents logged in: ____

Total split/skill members, summed over all splits/skills (0-xxxx): ____

Number of agent login/logout records (0-99999): ____

Number of agent trace records (0-99999): ____

Number of unmeasured trunk facilities: ____

Number of exception records (0-xxxx): ____

Number of call records (0-xxxx): ____

Figure 10-5: Data Storage Allocation Window

Input Fields

Table 10-4 includes definitions for and directions on completing all fields on the System Setup: Data Storage Allocation input window. See Figure 10-5 for an example of the input window.

Table 10-4: Data Storage Allocation Input Fields

Field	Definition
Data Item: (Display only)	Lists the maximum number of splits/skills, trunk groups, trunks, call work codes, vectors, and VDNs allowed for your system.
# 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 header 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, 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 enter 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 header in the row corresponding to the appropriate data item.

Table 10-4: Data Storage Allocation Input Fields (Contd)

Field	Definition
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 data. When you enter a value for the skills measured on a Generic 2.2 switch, 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. If you want monthly archiving, enter 31 here. This number saves data for a complete month. • 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 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 10-4: Data Storage Allocation Input Fields (Contd)

Field	Definition
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 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. • <i>CentreVu</i> CMS uses the shift times you specify to do the space calculation for the historical agent table. • 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 10-4: Data Storage Allocation Input Fields (Contd)

Field	Definition
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/System 85, 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 Version 2, this could be the maximum number of skills measured at any one time. This number cannot exceed the maximum number you paid for. When you enter a value for the skills measured on a Generic 2.2 switch, 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. If you want monthly archiving, enter 31 here. This number saves data for a complete month. 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. You can assign an agent member to several different splits/skills, but an agent can be logged into only three of those splits/skills simultaneously.
Number of Agent login/logout records (0-997999):	Enter the number of agent login/logout records you want the system to store. A record is generated each time an agent logs out, 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 an agent changes their skills, a new record is generated.
Number of agent trace records (0-997999):	Enter the number of agent trace records <i>for this ACD</i> , not for all ACDs.

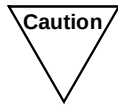
Table 10-4: Data Storage Allocation Input Fields (Contd)

Field	Definition
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 extension calls and all calls that arrive on 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 that does not use a measured trunk group uses 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-xxxxx):	Enter the number of call records 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 99999. 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.

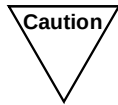
Things to Know Before You Start



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.

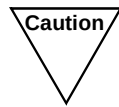
- The *available space* is calculated as follows: free space currently available minus space allocated for *CentreVu* CMS but not yet used.



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 memory required to handle the total number of splits/skills.
- Data collection must be off for all *real-ACDs* before you can modify the data storage (file systems). If you try to modify the data storage 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
 - Agent Trace Record Contents
 - Call Work Codes.

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 are made successfully, the status line reads **Successful**. You can turn data collection back on at this time.
- You must put *CentreVu* CMS in 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 reads **Successful** you can restore the *CentreVu* CMS to the multi-user mode.
- You need **read** permission for the System Setup subsystem to view the Free Space Allocation window. See Chapter 9, “User Permissions—Feature Access.”

- You need **write** permission to change the fields located in the Free Space Allocation window. See Chapter 9, “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* (AT&T 585-215-812) document for more specific information on the Forecast feature.

Timetable

This window **cannot** be placed on a timetable.

Input Window

You must complete the Free Space Allocation window (Figure 10-6) to specify where you would like to store specific *CentreVu* CMS files. See Table 10-5 for descriptions of the fields on this input window.

File system for:	Blocks Required	File system	Blocks Avail	% Avail
Agents:				
Agent trace:				
Call wrk codes:				
Call records:				
Exceptions:				
Forecasting:				
Login/logout:				
Splits/Skills:				
Trunk groups:				
Trunks:				
VDNs:				
Vectors:				

Figure 10-6: Free Space Allocation Window

Input Fields

Table 10-5 includes definitions for and directions on completing all fields on the System Setup: Free Space Allocation input window. See Figure 10-6 for an example of the input window.

Table 10-5: Free Space Allocation Input Fields

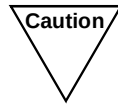
Field	Definition
Status: (Display only)	Displays the name of each table as it is being moved.
File system for:	Enter the specific file system name where you would like to store the <i>CentreVu</i> CMS files for Agents, Agent trace, Call work codes, Call records, Exceptions, Forecast, Logins/Logouts, Splits/Skills, Trunk groups, Trunks, VDNs, and Vectors. Fields such as Vectors, VDNs, Forecast 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 directory <i>cmstables</i> in that file system.
Blocks Required:	The approximate number of blocks to be used for agents, agent trace, call work codes, call records, exceptions, Forecast, logins/logouts, 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

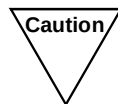
From this window, you can specify a 15-, 30-, or 60-minute storage interval for call data, thereby allowing you to choose the storage interval that best meets the needs of your call center. You will also select the days of the week that begin and end your call center's week.

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 could 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 could select a 15- or 30-minute intrahour interval and *CentreVu* CMS will automatically adjust your historical data to reflect the change and give you the 15- or 30-minute interval data. 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**.

- 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. Free space, data storage, and storage intervals are closely tied.

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.

Note

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.
- Again, you may want to modify the storage intervals during "off-peak" hours. See the CMS State section later in this chapter. (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 9, "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 window. See Chapter 9, "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. Data are zeroed out at the end of the current 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`/`week stop day` fields 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.

Input Window

During installation, defaults were set for this window. You can, however, change the values in the Storage Intervals window (Figure 10-7) 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. See Table 10-6 for descriptions of the fields on this input window.

System Setup: Storage Intervals		acd1
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):		
Week start day (Select one):	Week stop day (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: 11:50 PM		

Figure 10-7: Storage Interval Window

Input Fields

Table 10-6 includes definitions for and directions on completing all fields on the System Setup: Storage Intervals input window. See Figure 10-7 for an example of the input window.

Table 10-6: Storage Intervals Input Fields

Field	Definition
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 intrahour interval field does not take effect until the end of the current intrahour interval, and existing historical data are automatically migrated. 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 hh:mm AM/PM or in the 24-hour clock (for example, 17:00) format. If AM/PM is not specified, the 24-hour clock (military time) is used. This field displays the time when the daily/weekly/monthly summaries are done. The time is displayed in the hh:mm AM/PM format. The default daily summary time is 12:35 AM on the day following the selected stop time. 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 to less than 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, and the monthly summaries 4 hours after that.

Table 10-6: Storage Intervals Input Fields (Contd)

Field	Definition
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 because <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 only select 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 it is possible, it is a good idea to 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.

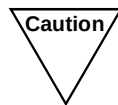
Table 10-6: Storage Intervals Input Fields (Contd)

Field	Definition
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; or 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 only select 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 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 or in the 24-hour clock (for example, 17:00) format. The default for this field is 11:59 PM. Data are collected through the end of the minute specified here (that is, data from 11:59 PM to 12:00 AM are included).

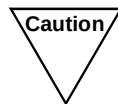
Agent Trace Record Contents

From the Agent Trace Record Contents window, you will specify the agent data to be stored for later use in the Agent Trace historical report.

Things to Know Before You Start



If you are currently doing a `Modify`, **do not** open another Agent Trace Record Contents 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**.

- As you increase the contents of the agent records stored, you may need to reallocate free space. The Free Space Allocation window displays the amount of free space still available on your *CentreVu* CMS, the approximate space required for agent trace records, and the file system name for agent trace. See "Free Space Allocation" earlier in this chapter.
- If you change any selection from the `Select any you wish:` list, data are removed from existing agent trace records for the fields which are being removed. Also, agent trace records which have already been created will not have information in the new fields.
- Not all optional records are available with all switches. These are noted in the field descriptions of the records.
- 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* (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 that time.

- *CentreVu* CMS must be in single-user mode (see CMS State section later in this chapter). (If you log out of *CentreVu* CMS while in the single-user mode, you must wait at least 10 seconds before logging in again.)

After the status line reads `Successful` you can restore *CentreVu* CMS to the multi-user state.

- To view the contents included in an agent trace, you need **read** permission for the System Setup subsystem. See Chapter 9, “User Permissions,” for more information.
- To modify the contents of any agent trace records, you must have **write** permission for the System Setup subsystem. See Chapter 9, “User Permissions,” for more information.

Relationships to Other Subsystems

ACD Administration

To activate or stop an agent trace, use the Activate Agent Trace window in the ACD Administration subsystem. A maximum of 25 agents may be traced at any one time. See Chapter 8, “ACD Administration—Activate Agent Trace.”

Historical Reports

The Agent Trace report is a log-like report that lists each agent activity (including state changes) and the time it occurred. You can use this information to evaluate how well agents are using their time. See the Historical Reports subsystem Agent Trace window to obtain an agent trace report. See Chapter 4, “Historical Reports—Agent Trace,” for more information.

Timetable

This window **cannot** be put on a timetable.

Input Window

You must complete the Agent Trace Record Contents window (Figure 10-8) to specify what and how much agent data to store for later use in the Agent Trace historical report. See Table 10-7 for descriptions of the fields on this input window.

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System Setup: Agent Trace Record Contents All ACDs

Note: Modify requires CMS single-user mode and data collection off **Modify**

Agent record always contains:

☒ Agent ID	☒ Split/Skill
☒ Duration of event	☒ Time event started
☒ Work mode	☒ Reconnect
☒ Direction	

Select any you wish:

☐ Assist activated	☐ External Call Originated
☐ Calling Party	☐ Keyboard Dialed
☐ Call Work Codes	☐ Malicious Call Trace
☐ Caller on Hold	☐ On Conference
☐ Digits Dialed	☐ Transfer Completed

Figure 10-8: Agent Trace Record Contents Window

Input Fields

Table 10-7 includes definitions for and directions on completing all fields on the System Setup: Agent Trace Record Contents input window. See Figure 10-8 for an example of the input window.

Table 10-7: Agent Trace Record Contents Input Fields

Field	Definition														
Agent record always contains:	All of the agent trace records contain information for the following fields: <table><tr><td>Agent ID</td><td>Displays the agent's login ID.</td></tr><tr><td>Duration of event</td><td>Displays the amount of time the agent spent in the particular work mode.</td></tr><tr><td>Work mode</td><td>Displays the agent's work state (for example, AUX) for the specified time.</td></tr><tr><td>Direction</td><td>Displays the direction (inbound or outbound) of the call the agent was handling (if any).</td></tr><tr><td>Split</td><td>Displays the split/skill that the agent logged into.</td></tr><tr><td>Time event started</td><td>Displays the time in which the action/work mode started for the agent.</td></tr><tr><td>Reconnect</td><td>Displays when the agent reconnects to a call after putting the call on hold.</td></tr></table>	Agent ID	Displays the agent's login ID.	Duration of event	Displays the amount of time the agent spent in the particular work mode.	Work mode	Displays the agent's work state (for example, AUX) for the specified time.	Direction	Displays the direction (inbound or outbound) of the call the agent was handling (if any).	Split	Displays the split/skill that the agent logged into.	Time event started	Displays the time in which the action/work mode started for the agent.	Reconnect	Displays when the agent reconnects to a call after putting the call on hold.
Agent ID	Displays the agent's login ID.														
Duration of event	Displays the amount of time the agent spent in the particular work mode.														
Work mode	Displays the agent's work state (for example, AUX) for the specified time.														
Direction	Displays the direction (inbound or outbound) of the call the agent was handling (if any).														
Split	Displays the split/skill that the agent logged into.														
Time event started	Displays the time in which the action/work mode started for the agent.														
Reconnect	Displays when the agent reconnects to a call after putting the call on hold.														

Table 10-7: Agent Trace Record Contents Input Fields (Contd)

Field	Definition
Select any you wish:	If you select any of the following optional items, they do <i>not</i> appear in the standard Agent Trace report. To see these items, you must create a custom report. Enter an x next to any of the data items you would like to store. These are all optional and some may have yes or no answers. Assist activated Has the agent activated supervisor assist? Calling party Identification of calling party. Call Work Codes Agent has entered codes of up to 16 digits. Call Work Codes are only available on the <i>DEFINITY</i> Generic 2.2 switch or the <i>DEFINITY</i> Generic 3 switches. Caller on Hold Has the agent put a call on hold? Digits Dialed The number dialed on outbound calls. External Call Originated Did the agent initiate an external call? Keyboard Dialed Did the agent initiate a call using ASAI Gateway for Generic 2 and ASAI for Generic 3? Malicious Call Trace Did the agent initiate a malicious call trace? Malicious Call Trace is not available on Generic 3i. On Conference Was the agent active on a conference? Transfer completed Did the agent successfully transfer the call?

Main Menu Addition

Use this window to add up to eight additional items to the Main Menu. 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 Main Menu names or 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 Main Menu additions, you need **read** permission for the System Setup subsystem. See Chapter 9, “User Permissions.”
 - To modify any Main Menu additions, you must have **write** permission for the System Setup subsystem. See Chapter 9, “User Permissions.”
-

Relationships to Other Subsystems

Maintenance

A *CentreVu* CMS backup does **not** back up programs accessed via Main Menu Additions. You have to use a *UNIX* system/*Solaris* system backup instead (see Chapter 12, “*UNIX* System/*Solaris* System”).

User Permissions

The default permissions for any Main Menu addition is “no.” You need to change the permissions for affected users. See Chapter 9, “User Permissions—Main Menu Addition Access.”

Timetable

The window can be placed on a timetable. See Chapter 5, “Timetable and Shortcut.”

Input Window

You must complete the Main Menu Addition window (Figure 10-9) if you want to add additional items to the Main Menu. See Table 10-8 for descriptions of the fields on this input window.

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System Setup: Main Menu Addition

Menu item name: _____

Description: _____

Full path name to program: _____

Access must be assigned in Main Menu Addition Access.

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 10-9: Main Menu Addition Window

Input Fields

Table 10-8 includes definitions for and directions on completing all fields on the System Setup: Main Menu Addition input window. See Figure 10-9 for an example of the input window.

Table 10-8: Main Menu Addition Input Fields

Field	Definition
Menu item name:	Enter the name of the new menu item. This name must be different from other Main Menu selections.
Description: (Optional)	Enter a short description of this new menu item.
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 single-user mode and back to 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 single-user mode, you must wait at least 10 seconds before logging in again.

Things to Know Before You Start

- Single-user mode means only one person can log into *CentreVu* CMS. Data continue to be collected for those ACDs for which data collection is “on”.
 - The following tasks require *CentreVu* CMS to be in the 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
 - Agent Trace Record Contents
 - Restore 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 9, “User Permissions.”
- To modify the CMS State, you must have **write** permission for the System Setup subsystem. See Chapter 9, “User Permissions.”

Input Window

You must complete the CMS State window (Figure 10-10) to change *CentreVu* CMS mode (single-user or multi-user mode) and change the master ACD for clock synchronization. See Table 10-9 for descriptions of the fields on this input window.

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System Setup: CMS State

All ACDs

CMS user mode (Select one):

Modify

< > Single-user mode

<x> Multi-user mode

Master ACD for clock synchronization: 1

Figure 10-10: CMS State Window

Input Fields

Table 10-9 includes definitions for and directions on completing all fields on the System Setup: CMS State input window. See Figure 10-10 for an example of the input window.

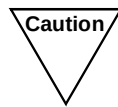
Table 10-9: CMS State Input Fields

Field	Definition
CMS user mode (Select one):	< > Single-user mode Enter an x to specify that CMS is being brought down to 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 x to specify that you are bringing <i>CentreVu</i> CMS up to 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 uses the switch's time which is displayed 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 nonhistorical data have been restored. You can determine this by 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.
 - When you turn off data collection, you lose data. 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 so you can wait until the interval archive completes.

Input Window

You must complete the Data Collection window (Figure 10-11) to turn data collection on or off. See Table 10-10 for descriptions of the fields on this input window.

Figure 10-11: Data Collection Window

Input Fields

Table 10-10 includes definitions for and directions on completing all fields on the System Setup: Data Collection input window. See Figure 10-11 for an example of the input window.

Table 10-10: Data Collection Input Fields

Field	Definition
ACD:	Enter the name or number of the ACD you want to view or modify.
Data collection (Select one):	<x> 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

- External applications are designed and administered by the Technical Service Center. For more information about external applications, call the AT&T Call Center Helpline at 1-800-344-9670.
- The status of an external application may be:
 - **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 5, "Timetable and Shortcut."

Input Window

Use the External Application Status window (Figure 10-12) to turn on or turn off the External Application feature, to start or stop external applications, or to view the status of external applications. See Table 10-11 for descriptions of the fields on this input window.

The screenshot shows a window titled "03/20/95 08:30 AM CentreVu(TM) CMS Window 1 of 10 ^". The main content area is titled "System Setup: External Application Status" and "All ACDs". It contains two sections: "External Applications (Select one):" with options "<x> Application name: _____" and "< > External application feature (turns on/off all applications)", and "Application status (Select one):" with options "<x> Start" and "< > Stop". A button labeled "List all Modify" is located to the right of the first section.

Figure 10-12: External Application Status Window

Input Fields

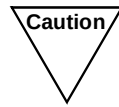
Table 10-11 includes definitions for and directions on completing all fields on the System Setup: External Application Status input window. See Figure 10-12 for an example of the input window.

Table 10-11: External Application Status Input Fields

Field	Definition
External Applications (Select one):	< > Application name: Enter an x to start, stop, or view the status of a particular external application. Then enter the name of the external application you want to start, stop, or view the status of. 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 or turn off 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. Therefore, it is recommended that you do not use this window unless an archive 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 Storage Intervals window description earlier in this chapter for more information.

Input Window

Complete the Data Summarizing window (Figure 10-13) **only** if a previous archive did *not* occur. See Table 10-12 for descriptions of the fields on this input window.

03/20/95 08:30 AM

CentreVu(TM) CMS

Window 1 of 4 ^

System Setup: Data Summarizing

ACD: _____

Run

Data type (Select one):

<x> Daily

< > Weekly

< > Monthly

Date: _____

Figure 10-13: Data Summarizing Window

Input Fields

Table 10-12 includes definitions for and directions on completing all fields on the System Setup: Data Summarizing input window. See Figure 10-13 for an example of the input window.

Table 10-12: Data Summarizing Input Fields

Field	Definition
ACD:	Enter the name or number of the ACD for which you want to summarize data.
Data type (Select one):	<x> Daily (Default value) Enter an x to summarize intrahour data into daily data immediately. < > Weekly Enter an x to summarize daily data into weekly data immediately. < > Monthly Enter an x to summarize daily data into monthly data immediately.
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 before <i>CentreVu</i> CMS archives the data for that week. • 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 which falls on Saturday, the data are archived for the previous week.



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

The R3 Migrate window (Figure 10-14) is used to migrate data from R3 CMS to *CentreVu* CMS.

04/26/95 07:30 PM CentreVu(TM) CMS Window: 1 of 10

System Setup: R3 Migrate Data

Device name: default

Migrate to ACD:

Data type (Select any you wish):

- ☒ System Administration data (single-user required)
- ☐ ACD Administration data (data collection off required)
- ☐ Historical Data

Stop date:

Stop time: 11:59_PM

Status:

All ACDs

Cancel

List device

Run

Figure 10-14: R3 Migrate Data Window

For more information, see the *CentreVu™ CMS R3V4 Upgrades and Migration* (AT&T 585-215-806) document.

R2 Migrate Data

The R2 Migrate Data window (Figure 10-15) is used to migrate data from R2 3B CMS to *CentreVu* CMS. Items that can be migrated include:

- Administration data (that is, User Permissions)
- Dictionary
- Custom Reports
- Historical data
- Forecast Administration Data.

04/30/95 00:30 PM	CentreVu(TM) CMS	Window: 1 of 4
System Setup: R2 Migrate Dataxxxxxxx Device name: default_____ Data type (Select any you wish): <x> Administration, Dictionary, and Custom Reports < > Historical and Forecast Administration Data Stop date: _____ Stop time: 11:59_PM Status: List device Run		

Figure 10-15: R2 Migrate Data Window

For more information, see the *CentreVu™ CMS R3V4 Upgrades and Migration* (AT&T 585-215-806) document.

General Information

Audience

Chapter 11 is written for the *CentreVu*™ Call Management System (*CentreVu* CMS) administrator who is responsible for backing up and restoring *CentreVu* CMS files.

Introduction

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:

- 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

From the *CentreVu* CMS Maintenance menu (Figure 11-1), users with read permission can back up data. *CentreVu* CMS administrators and users with read and write permission can perform any of the actions accessible from the Maintenance menu.

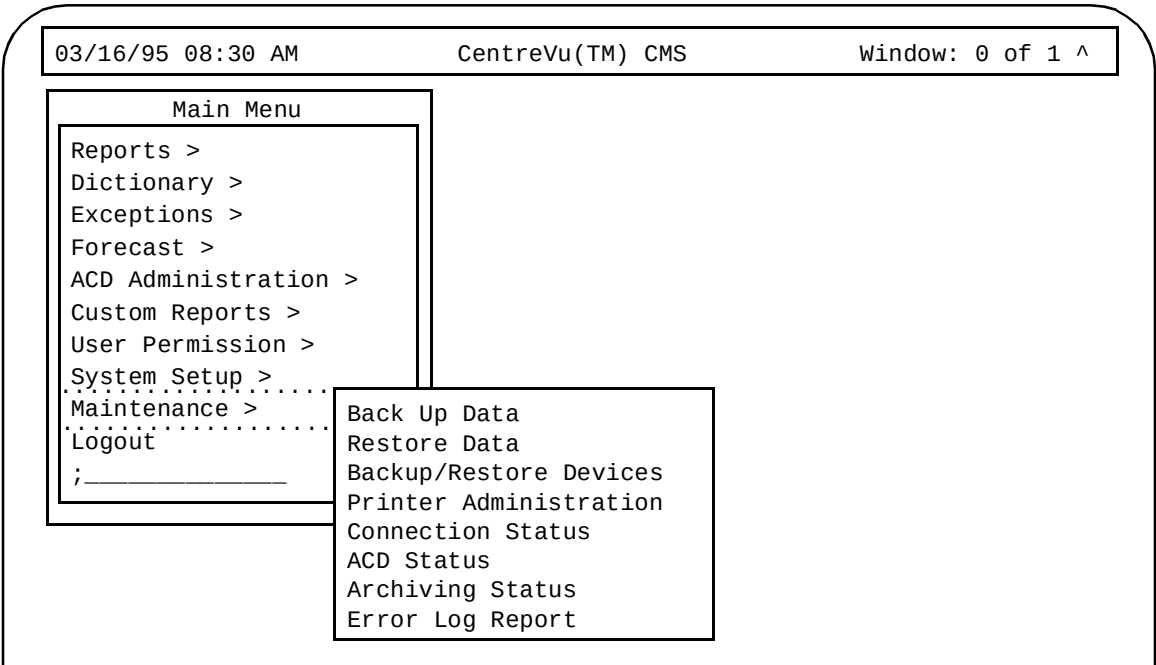


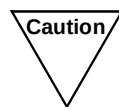
Figure 11-1: Maintenance Menu

Backup Strategy

A backup copies the data stored on the *CentreVu* CMS machine to a removable volume (tape, etc.).

Reasons for Backups

A backup protects your data and minimizes 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 are 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 backs up 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 11-1 describes who should do the backup, when the backup should be done, and why you should do the backup.

^{*} UNIX is a registered trademark of Novell, Inc.

[†] Solaris is a trademark of Sun Microsystems, Inc.

Table 11-1: CMSADM File System Backups

Who Does the Backups?	When?	Why?
From the <i>root</i> login via the cmsadm command. See Chapter 12, “UNIX System/Solaris System” 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. Regular backups reduce the time it takes to restore the system to an operating state and provide 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**

CMSADM File System Backups for New *CentreVu* CMS Installations

Because backups are so important, AT&T 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.

* Intel is a registered trademark of Intel Corp.

† Sun is a registered trademark of Sun Microsystems Inc.

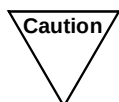
The *second* backup is done when your *CentreVu* CMS is provisioned. This backup contains all the *UNIX* system/*Solaris* system files and programs and the *CentreVu* CMS configuration data that was done by provisioning.

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.), and you run these backups from the Maintenance: Back Up Data window. Either of these backups can be scheduled to run automatically on a timetable at your convenience.

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 table (historical data, dictionary, permissions, etc.). If the backup does not fit on one tape, you are prompted when another tape is 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.

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 in to *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 for a Full Maintenance backup, I 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. Write down the error message and call the CMS Helpline. There is a problem with your tape or tape drive that must be corrected.

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.							



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 only does a **full** backup 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 (Set 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 Services 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).

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.

- 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
- IPC-1600 - MS-DOS Device Drivers and Diagnostics
- SCSI Diagnostics
- RMP Fix
- GPSC-AT/E Diagnostics and Installation Diskette
- *INFORMIX*† SQL

* MS-DOS is a registered trademark of Microsoft Corp.

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

Back Up Data

From this window (Figure 11-2), you can select the type of backup (Full or Incremental), which ACDs to back up (All or Current), and also the types of data to back up. The Back Up Data window does not back up the software which supports the *CentreVu* CMS product.

To restore data accurately and precisely (using the Restore Data window) 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.

Since new data are written each day, it should be backed up each day. Management of the tapes used, storage, security, labeling the tape (see Labeling the Backup Volume in this section), etc., 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 this window without affecting the background backup. You should, however, periodically check for any errors or the prompt to mount a new volume.
- 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.
- 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 (Figure 11-3) window and return to the Back Up Data window to run the backup.
- You should have the appropriate number of tapes or floppy disks 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.
 - Floppy disks must be *UNIX* system/*Solaris* system formatted first. (Many floppy disks now come preformatted from the factory. Check first before formatting.)
- 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 12, “*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 use **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 some later date, the logout entry is eventually filled in when the agents in question log in again and then log out. The next restore records have the old entry for the login time and the old logout time will be filled in with the same time as the first login/logout entry for the agent after the data was restored.

Agent	Login date/time	Logout date/time
Smith, M	2/13/95 8:05AM	2/17/95 4:30PM
Smith, M	2/17/95 8:00AM	2/17/95 4:30PM

- **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 complete any of the maintenance procedures. See Chapter 9, “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).
- If you are backing up data using floppy disks, the disks must first be formatted. See the computer/disk documentation for the procedures on how to format your particular disks.

Relationships to Other Subsystems

Timetable

A timetable for an *incremental* and *full* backup has already been created for you, but you have to 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 and precisely (using the Restore Data window) after a disk crash or system failure, regular backups are essential.

Input Window

You must complete this window (Figure 11-2) to back up data. Make sure you have read all the information in this section prior to filling out this window. See Table 11-2 for descriptions of the fields on the Maintenance: Back Up Data input window.

03/10/95 00:30 AM CentreVu(TM) CMS Windows: 1 of 4 ^

Maintenance: Back Up Data

Backups completed today: xx
Status:
Errors:

Device name: _____
Verify tape can be read after backup? (y,n): n_

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
[x] Specific tables

Cancel
List device
Run
Select tables

Figure 11-2: Back Up Data Window

Back Up Data
Select Tables

The Back Up Data – Select Tables field (Figure 11-3) 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 for example.

Note

The tables listed in this window are historical data tables along with some Dictionary tables.

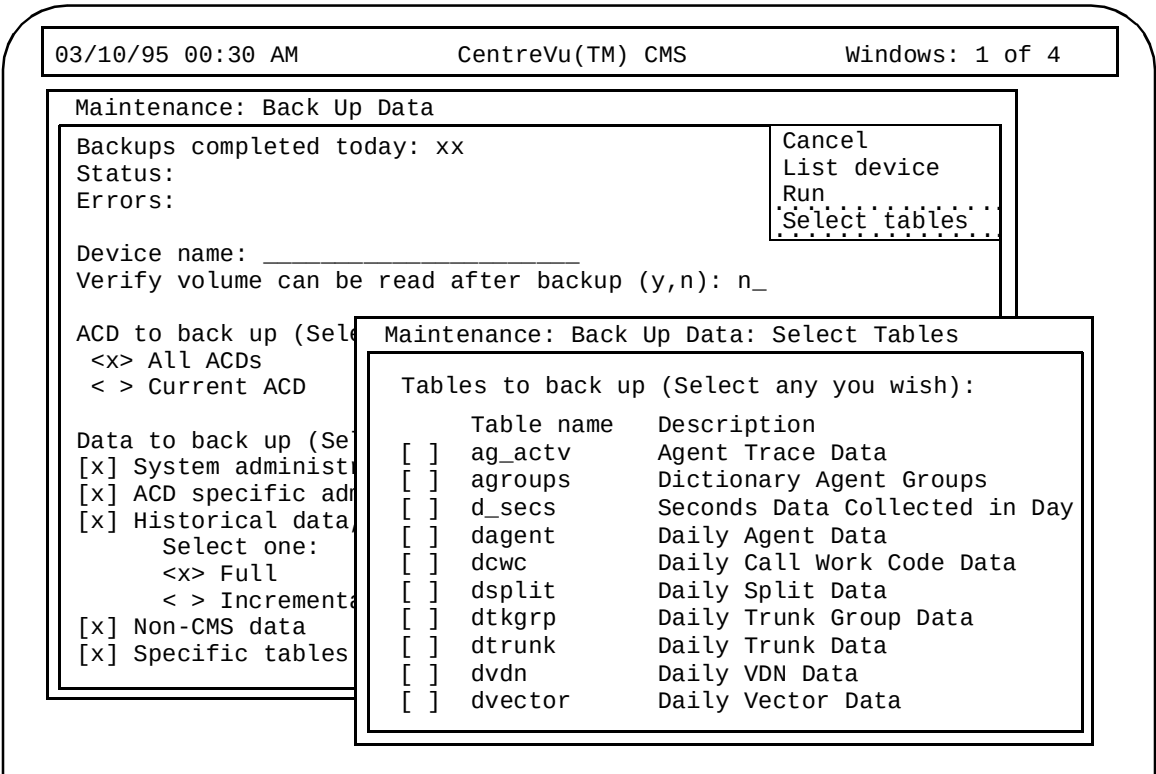


Figure 11-3: Back Up Data Select Tables

Input Fields

Table 11-2 includes definitions for and directions on completing all fields on the Maintenance: Back Up Data input window. See Figure 11-2 and Figure 11-3 for examples of the input windows.

Table 11-2: Back Up Data Input Fields

Field	Definition
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.
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 (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.

Table 11-2: Back Up Data Input Fields (Contd)

Field	Definition
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, Main Menu addition data, timetable and shortcut, printer administration, default values and color values, and custom reports (not the data associated with custom reports). ACD-specific administration data Enter an x if you want ACD data backed up. ACD-specific administration data includes forecast data (if the feature is active), call work code data, VDN and vector administration data, data storage allocation data, exception data, agent trace, and ACD-specific Dictionary names.
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. A full backup must be done before the first incremental backup is done.

Table 11-2: Back Up Data Input Fields (Contd)

Field	Definition
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_." These are tables you might use for storing your own data and then backing up those tables. Also, 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 12, " <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 backup up field. See "Specific Tables" section later in this chapter.
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 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) (tape or floppy disks). *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-920323-NN-LLL-NN-L-NN
1 2 3 4 5 6 7
L=Letter
N=Number

1. CMS = System name
2. 930323 = Year, month and day of the backup
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.

You might see XAX, which means that only ACD-specific data was backed up.

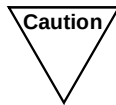
5. NN = Number of the ACD (00 means All ACDs was selected on the Back Up window)
6. L = Backup mode (**F** for Full, **I** for Incremental)
7. NN = The tape number in the backup series (for this backup only)

Restore Data

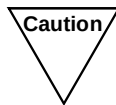
The Restore Data window (Figure 11-4) allows you to restore *CentreVu* CMS data that has been lost due to system failure, disk crashes, power outages, and so forth. You can restore all *CentreVu* CMS data files that you have previously backed up.

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

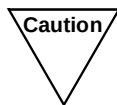


DO NOT start Data Collection until all nonhistorical data have been restored. You can determine this by the Restore status.



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 and Data Collection must be off. 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 only when the status line on the window reads `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 11-5) 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 backup, 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 entering **n** in the `Restore from last backup` field, and then rerun the restore manually as described below.

With an **automatic restore** you are asked to mount a specific volume.

- If the specific volume has not been loaded, you are asked to mount the requested volume.
- If you want to stop the restore, use the Current SLK to return to the Restore Data window, and select `Cancel` from the action list.

- **Manual restore**

A manual restore is used for problem situations or cases in which you know exactly what needs to be restored.

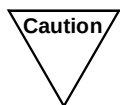
To perform a manual restore, type **n** in the `Restore from last backup` field. Doing a manual restore gives you full control over what you restore.

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 and non-CMS data, the last copy is the most recent backup for the data. For ACD-specific 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 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 means abort**.

- **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).
- 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.
- 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 9, “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 10, “System Setup,” for more information.

Input Window

You must complete the Restore Data window (Figure 11-4) to restore *CentreVu* CMS data. Make sure you have read all the information in this section prior to filling out this window. See Table 11-3 for descriptions of the fields on the Maintenance: Restore Data input window.

03/10/95 00:30 AM		CentreVu(TM) CMS		Windows: 1 of 4 ^	
Maintenance: Restore Data					
Status: Errors: Device name: _____ 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): [x] System administration data [x] ACD specific administration data [x] Historical data [x] Non-CMS data [] Specific tables				Cancel List device Run Select tables	

Figure 11-4: Restore Data Window

Restore Data Select Tables

The Restore Data – Select Tables field (Figure 11-5) 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 11-3 for descriptions of the fields on the Maintenance: Restore Data input window.

03/10/95 00:30 AM CentreVu(TM) CMS Windows: 1 of 4 ^

Maintenance: Restore Data

Status:
Errors:

Device name: _____

Restore from last
Restore historical
Start date: _____

ACD to restore (S
<x> All ACDs
< > Current ACD

Data to restore (S
[x] System admini
[x] ACD specific
[x] Historical da
[x] Non-CMS data
[] Specific tabl

Cancel
List device
Run.....
Select tables''

Maintenance: Restore Data: Select Tables

Tables to restore (Select any you wish):

Table name	Description
[] ag_actv	Agent Trace Data
[] agroups	Dictionary Agent Groups
[] d_secs	Seconds Data Collected in Day
[] dagent	Daily Agent Data
[] dcwc	Daily Call Work Code Data
[] dsplit	Daily Split Data
[] dtkgrp	Daily Trunk Group Data
[] dtrunk	Daily Trunk Data
[] dvdn	Daily VDN Data
[] dvector	Daily Vector Data

Figure 11-5: Restore Data Select Tables Window

Input Fields

Table 11-3 includes definitions for and directions on completing all fields on the Maintenance: Restore Data input window. See Figure 11-4 and Figure 11-5 for examples of the input windows.

Table 11-3: Restore Data Input Fields

Field	Definition
Status: (Display only)	Displays the status of the current or most recent restore.
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.
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 "+" or "-" offset based on today. Enter a time in the hh or hh:mm XM format. If AM or PM is not specified, military time is assumed. Multiple values are not allowed in the Start date and Start time fields. Status: (Display only) Displays status of current or most recent restore. This field is automatically updated as the restore status changes. You can bring <i>CentreVu</i> CMS to the multi-user mode when the status line on the window displays Restoring Historical data

Table 11-3: Restore Data Input Fields (Contd)

Field	Definition
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.
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, Main Menu addition data, exception data, timetable and shortcut, agent trace, printer administration, default values and color values, custom reports (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 data (if the feature is active), call work code data, VDN and vector administration data, data storage allocation 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_". Also, 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 12, "<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 11-3: Restore Data Input Fields (Contd)

Field	Definition
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. See the “Specific Tables” section in this chapter.
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.

Back Up/Restore Devices

This window (Figure 11-6) 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 9, “User Permissions — Feature Access.”
-

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.

Input Window

You must complete this window (Figure 11-6) to assign a name and description to a full path name for a device. See Table 11-4 for descriptions of the fields on the Maintenance: Backup/Restore Devices input window.

03/10/95 00:30 AM CentreVu(TM) CMS Window 1 of 4 ^

Maintenance: Backup/Restore Devices

Device name: _____

Path: _____

Description: _____

Device type (Select one):

< > SCSI cartridge tape - 60 MB

< > SCSI cartridge tape - 150 MB

< > SCSI cartridge tape - 14 GB

Add
Delete
Find one
List all
Modify
Next
Previous

Figure 11-6: Backup/Restore Devices Window

Input Fields

Table 11-4 includes definitions for and directions on completing all fields on the Maintenance: Backup/Restore Devices input window. See Figure 11-6 for an example of the input window.

Table 11-4: Backup/Restore Devices Input Fields

Field	Definition
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, <code>tape drive B in computer room 221</code> .
Device type (Select one):	<code>< > SCSI cartridge tape - 60MB</code> <code>< > SCSI cartridge tape - 150 MB</code> <code>< > SCSI cartridge tape - 6 GB</code> Enter an <code>x</code> 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 11-7). 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 R3V4 Sun® SPARCserver™ Computers Installation and Maintenance* (AT&T 585-215-807) document (if you have a *Sun*) or the *CMS R3V2 Installation and Maintenance* (AT&T 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 9, “User Permissions — Feature Access.”
- You need **write** permission for the Maintenance subsystem to add, delete, or modify printer administration. See Chapter 9, “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.

Input Window

You must complete this window (Figure 11-7) 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 11-5 for descriptions of the fields on the Maintenance: Printer Administration input window.

03/30/95 08:30 AM

CentreVu(TM) CMS

Window 1 of 4 ^

Maintenance: Printer Administration

CMS printer name: printer1

LP printer name: printer1

Description: UNIX system printer1_____

IBM graphics characters (y/n): n

Page length (Select one):
< > 8.5 inches
<x> 11 inches
< > 14 inches
< > 17 inches
< > Other, inches ____

Print type (Select one):
<x> Normal
< > Other, _____

Banners (y/n): n

Add

Delete

Find one

List all

Modify

Next

Previous

Figure 11-7: Printer Administration Window

Input Fields

Table 11-5 includes definitions for and directions on completing all fields on the Maintenance: Printer Administration input window. See Figure 11-7 for an example of the input window.

Table 11-5: Printer Administration Input Fields

Field	Definition
CMS printer name:	Enter a unique name for this printer. In 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 <i>Modify</i> , you receive an error message stating <i>does not exist</i> .
LP printer name:	Enter the LP (<i>UNIX</i> system/ <i>Solaris</i> system printer) printer name that corresponds to the printer name. This printer must be previously administered in the <i>UNIX</i> system/ <i>Solaris</i> system before the printer name can be added or modified. See the <i>CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance</i> (AT&T 585-215-807) document (if you have a <i>Sun®</i>) or the <i>CMS R3V2 Installation and Maintenance</i> (AT&T 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 y (yes) if your printer has IBM graphics characters. Otherwise, leave this as n (no).
Page length (Select one): (Default is 11 inches.)	Enter an x next to the desired length of paper, or select <i>Other</i> and enter the length in inches. <i>CentreVu</i> CMS assumes 6 lines per inch and formats reports to correspond to the calculated number of lines per page. For an 11-inch page, this is 66 lines.
Print type (Select one): (Default is Normal.)	Enter an x next to <i>Normal</i> or <i>Other</i> . After <i>Other</i> , you can specify a print type like <i>pica</i> , <i>elite</i> , or <i>compressed</i> .
Banners (y/n): (Default is no.)	Enter a y (yes) if you want banners. A banner is a piece of paper that separates different printer jobs.

Connection Status

You are be able to monitor the data link between the *CentreVu* CMS processor and the switch from the Connection Status window (Figure 11-8). 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.
- When the link is down for several minutes (at least 5), the Connection status may be waiting session accept. If this happens, you need to reboot the *CentreVu* CMS by logging in as root and performing the **shutdown -i6 -g0 -y** command.

Prerequisite System Administration

- You need **read** permission for the Maintenance subsystem to view the Connection Status window. See Chapter 9, “User Permissions — Feature Access.”

Input Window

Fill out the ACD field in the Connection Status window (Figure 11-8) to monitor a data link. See Table 11-6 for descriptions of the fields on the Maintenance: Connection Status input window.

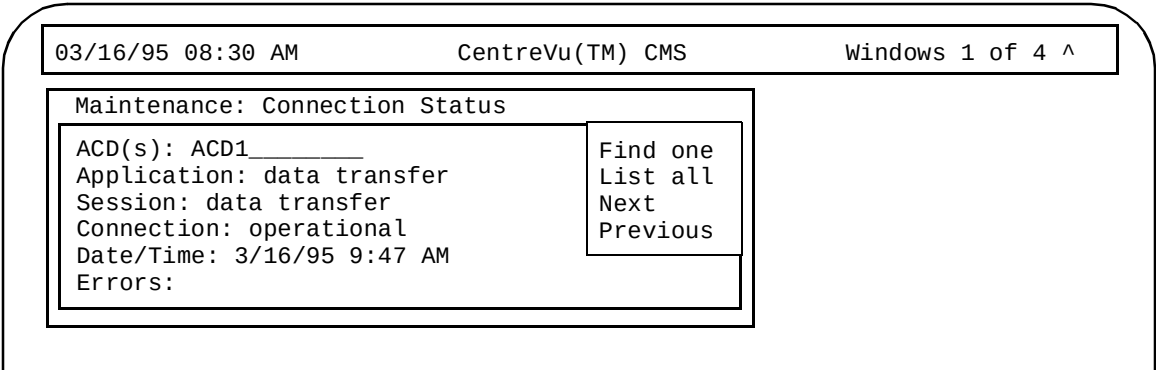


Figure 11-8: Connection Status Window

Input Fields

Table 11-6 includes definitions for and directions on completing all fields on the Maintenance: Connection Status input window. See Figure 11-8 for an example of the input window.

Table 11-6: Connection Status Input Fields

Field	Definition
ACD(s) :	Enter the number or name of the ACD 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: 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 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 via the Data Collection window (see Chapter 10, “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 11-6: Connection Status Input Fields (Contd)

Field	Definition
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 Session: field are: 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 Connection: field are: 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.
Date/Time: (Display only)	The Date/Time: field displays the current date/time for this ACD. This is the time on the master switch unless the link 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, 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 11-9 displays. If your switch *does* have EAS, the window shown in Figure 11-10 displays.

Things to Know Before You Start

- The `Measured splits:` field can only be modified if you have a Generic 2.1 or System 85 switch, and you select the `Translations` action list item.
- 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 pump up. 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 **write** permission for the Maintenance subsystem to complete any of the maintenance procedures. See Chapter 9, "User Permissions — Feature Access."
- You need **read** permission for the Maintenance subsystem to view the ACD Status window. See Chapter 9, "User Permissions — Feature Access."

Input Window, Non-EAS

If your switch does not have EAS, the window shown below (Figure 11-9) displays. You must complete the ACD field to view information about the current ACD. See Table 11-7 for descriptions of the fields on the Maintenance: ACD Status input window.

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Maintenance: ACD Status

ACD(s): _____

CMS is measuring:

Splits: 22

Total split members:550

Split members in use: xxxx

Trunk groups: 26

Trunks: 1500

VDNs: 43

Vectors: 512

Measured splits: ___

Errors:

Find one
List all
Next
Previous
Translations

Figure 11-9: ACD Status Window (Non-EAS)

Input Window, EAS

If your switch has EAS, the window shown below (Figure 11-10) displays. You must complete the ACD field to view information about the current ACD. See Table 11-7 for descriptions of the fields on the Maintenance: ACD Status input window.

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Maintenance: ACD Status

ACD(s): _____

CMS is measuring:

Skills: 22

Maximum skill members:550

Skill members in use: xxxx

Trunk groups: 26

Trunks: 1500

VDNs: 43

Vectors: 512

Errors:

Find one
List all
Next
Previous
Translations

Figure 11-10: ACD Status Window (EAS)

Input Fields

Table 11-7 includes definitions for and directions on completing all fields on the Maintenance: ACD Status input window. See Figure 11-9 and Figure 11-10 for examples of the input windows.

Table 11-7: ACD Status Input Fields

Field	Definition
ACD(s) :	Enter the ACD name or number whose status you would like to check.

Table 11-7: ACD Status Input Fields (Contd)

Field	Definition
Non-EAS CMS is measuring: (Display only)	
Splits: (Display only)	The number of splits currently being measured by <i>CentreVu</i> CMS.
Total split members: (Display only)	The number of agent/split pairs that can be logged in on this ACD.
Split members in use:	The number of agent/split 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.
Measured splits:	Enter the number of measured splits. 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, you can infer that 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 <i>Translations</i> action list item.
Errors: (Display only)	Displays any errors found.

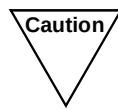
Table 11-7: ACD Status Input Fields (Contd)

Field	Definition
EAS CMS is measuring: (Display only)	
Skills: (Display only)	• The number of skills currently being measured by <i>CentreVu</i> CMS.
Maximum skill members: (Display only)	• The number of agents that can be logged in on this ACD.
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 11-11) 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 that 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 successfully.
 - **Failure**: The last archive failed to run.
 - **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 9, “User Permissions — Feature Access.”

Input Window

You must select the **List all** action item on the Archiving Status input window (Figure 11-11) to view the last archiving status for interval daily, weekly, and/or monthly data. See Table 11-8 for descriptions of the fields on the Maintenance: Archiving Status input window.

Figure 11-11: Archiving Status Input Window

Archiving Status List All Window

The List all window (Figure 11-12) 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	Archiving type	Status	Date	Time
Denver	Interval	Finished	01/ 6/95	3:30 PM
Denver	Daily	Failure	01/ 5/95	12:35 AM
Denver	Weekly	Not run	01/ 2/95	2:35 AM
Denver	Monthly	Running	12/ 1/94	4:35 AM

Figure 11-12: Archiving Status — List All

Input Fields

Table 11-8 includes definitions for and directions on completing all fields on the Maintenance: Archiving Status input window. See Figure 11-11 and Figure 11-12 for examples of the input windows.

Table 11-8: Archiving Status Input Fields

Field	Definition
ACD(s) :	Enter the ACD name or number for which you want to view archiving status.
Archiving type (Select any you wish):	Enter an x next to any archiving type you want to view. You have to blank out an x if you do not want to see the status on all archiving types.

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 AT&T Services personnel in clearing problems in your system.

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 AT&T 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.

How This Section is Organized

This section gives a brief description the Error Log Report, and example of the report input window, and definitions of the input fields. It provides you with the information you need to complete Error Log Report input window.

If you need definitions, causes, and solutions for the error codes, refer to the CentreVu™ CMS R3V4 Reports (AT&T 585-215-801) document.

Things to Know Before You Start

- The Error Log can contain 500 records. 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 complete any of the maintenance procedures. See Chapter 9, “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.

Input Window

You must complete this window (Figure 11-13) to view the Error Log Report. See Table 11-9 for descriptions of the fields on the Maintenance: Error Log Report input window.

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Maint: Error Log Report: Input All ACDs

ACD: _____

Error codes: _____

Severity: _____

Dates: _____

Report destination (Select one):

<x> Terminal

< > Printer, Printer name _____

< > File,

File name: _____

Run

Figure 11-13: Error Log Report Input Window

Input Fields

Table 11-9 includes definitions for and directions on completing all fields on the Maintenance: Error Log Report input window. See Figure 11-13 for an example of the input window.

Table 11-9: Error Log Report Input Fields

Field	Definition
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 AT&T Services personnel or your own departmental hierarchy. This field is used to filter the output so you can create a report with only those errors you are interested in. If the field is left blank, you get all errors.
Severity: (Optional)	Enter the severity of the error <i>in all capital letters</i> (ALARM, ERROR, or INFO). Again, 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(s) as for other reports.
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. 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.

General Information

Audience

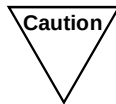
Chapter 12 is written for *CentreVu*™ Call Management System (*CentreVu* CMS) administrators.

Introduction

CentreVu CMS is supported on two operating systems:

- *Solaris** 2.4 on the *Sun*† *SPARCserver*‡ platforms
- *UNIX*** System 5 Release 4 (SVR4) 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 login 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 of Novell, Inc.

†† 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

At times you may want to view certain *UNIX* system/*Solaris* system files. The following command displays data one terminal screen at a time.

Printer Errors

From within *CentreVu* CMS, printer errors can be found in Maintenance: Error Log on *CentreVu* CMS.

Historical Reports

Enter the following command to view a historical report sent to a file. <filename> is the name you enter for the file in the Send To window. This command shows you the file one page (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.

```
# 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 **Return**.

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 R3V4 Sun® SPARCserver™ Computers Installation and Maintenance* (AT&T 585-215-807) document (if you have a *Sun*) or the *CMS R3V2 Installation and Maintenance* (AT&T 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/lib/cancel <print job request ID>
```

Note

<print job request ID> is the job number of the print request you want to cancel.

Moving Print Job to a Different Printer

To move a print job to a different printer, enter the following command.

```
$ /usr/lib/move <numbers> <dist2>
```

Note

`numbers` are the print request numbers for the current printer; `dist2` 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 <dist1> <dist2>
```

Note

Printer `dist1` is disabled as the current printer, and printer `dist2` 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.

***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 the *CentreVu* CMS software has been field updated.

Backup Using the *UNIX* System

The number of cartridge tapes required to back up the *CentreVu* CMS software varies depending on how many file systems the *CentreVu* CMS software resides on:

- */cms* is on disk drive 1.
- */cms* is on disk drive 2, if equipped.
- */cms* is on disk drive 3, if equipped.
- */cms* is on disk drive 4, if equipped.
- */cms* is on disk drive 5, if equipped.

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.

Note

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. 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) diskmay      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.

4. To complete a file system backup, follow the procedures in the “Maintenance—Performing a CMSADM Backup” chapter in the *CMS R3V2 Installation and Maintenance* (AT&T 585-215-122) 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) diskmay     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 R3V4 Sun® SPARCserver™ Computers Installation and Maintenance* (AT&T 585-215-807) 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 TSC 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 TSC for further instructions.

General Information

Audience

This appendix is written for *CentreVu*™ Call Management System (*CentreVu* CMS) users who need to understand the use of database items and how *CentreVu* CMS calculates amounts for reports. It is also written to help users decide which database items and calculations to use in custom reports.

Introduction

This appendix describes the *CentreVu* CMS database tables, the items in the database tables, and the standard Dictionary calculations that use the database items.

The appendix is organized in the following sections:

- How Database Items and Calculations Are Presented
- Terminology
- Database Table Names
- Interactions with Switch Features and Database Rules
- Split/Skill Database Items
- Agent Database Items
- Trunk Group Database Items
- Trunk Database Items
- Vector Database Items
- VDN Database Items
- Call Work Codes Database Items
- Agent Login/Logout Database Items
- Agent Trace Database Items
- Current Day Configuration Forecast Database Items
- Current Day Forecast Report Database Items
- Call Record Database Items
- Exceptions Historical Database Items
- Agent State and Row Search Values Cross-Reference
- Call Disposition and Row Search Values Cross-Reference
- Standard Dictionary Calculations

How Database Items and Calculations Are Presented

This section outlines how the *CentreVu* CMS database items and calculations are presented later in the appendix.

Database Items

This appendix defines every database item used in *CentreVu* CMS reports.

Database Item Tables

The database items are presented in a table format, according to ACD element (split/skill, agent, vector, VDN, trunk, trunk group, exception, etc.). The tables look like this:

Table A-1: Sample Database Item Table

Database Item	Description	Type
DATABASE ITEM	The definition of the database item is given here. Any additional information, such as other database items that are included in the sum of the database item, or specific switches that the database item applies to, is also listed.	C, A, or S

The following database item tables are included in this appendix:

- Split/Skill
- Agent
- Trunk Group
- Trunk
- Vector
- VDN
- Call Work Codes
- Agent Login/Logout
- Agent Trace
- Current Day Configuration (forecasting)
- Current Day Report (forecasting)
- Call Record
- Exceptions.

Many database items appear in more than one database table. When an item is in more than one table, the definition may or may not be the same from table to table.

Database items that are used in the description of another database item are in boldface type.

The index database items in each table are marked. Indexes add structure to table rows so that *CentreVu* CMS can retrieve data faster. The row search criteria you define for custom reports should be based on indexes whenever possible. For historical custom reports, always include a “where” clause based on the **ROW_DATE** database item.

Each database item contains one of the following types of data:

C = Cumulative data: accumulates throughout the collection interval. Most real-time database items contain cumulative data.

A = Administrative data: administered on the switch or on *CentreVu* CMS. For example, the database item INTRVL in the split/skill real-time table contains the number of minutes in the intrahour interval (15, 30, 60) currently assigned to the specified split/skill on *CentreVu* CMS.

S = Status data: gives the current status (a snapshot of a particular ACD element). For example, the database item INQUEUE in the split/skill real-time table contains the number of split/skill calls currently waiting in queue.

The letter C, A, or S appears in the Type column for each database item.

Cumulative and **Administrative** data items apply to historical and real-time database items. **Status** items apply only to real-time database items.

In addition to the types of data described above, items in the *CentreVu* CMS database can be either call-based or interval-based. Most *CentreVu* CMS database items are call-based. **Call-based data** is committed to the database after a call completes. Therefore, if a call starts and ends in different collection intervals, all of the data is recorded in the interval in which the call and any after call work are completed.

Interval-based data represents 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. Most interval-based items start with **I_** or **TI_**. The database items **ALLINUSETIME** (trunk-group tables) and **MBUSYTIME** (trunk and trunk-group tables) are also interval-based.

Interval-based items should only be used to calculate percentages such as percentage of time staffed or in AUX work. Interval-based items

should not be used, for example, to calculate average talk time; use call-based items for this type of calculation. Furthermore, because call-based and interval-based items may not track the same events, a calculation should use only one type of item and comparisons of call-based calculations and interval-based calculations may not be relevant or meaningful. For example, the call-based ACD time and interval-based ACD time for an agent will not be equal if the agent handled one or more ACD calls that crossed over interval boundaries.

Note Report data may not add up if the report has a combination of call-based and interval-based items.

Switch Reference Tables

CentreVu CMS database items apply to specific switches. After each database item table, is a switch reference table. The switch reference tables list which switches each database item applies to. The switch reference tables look like this:

Table A-2: Sample Switch Cross Reference Table

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
DATABASE ITEM	X	X	X	X	X	X	X
	Switch releases that this database item applies to are marked with X's.						

Calculations

CentreVu CMS uses calculations of database items in many reports. All standard *CentreVu* CMS Dictionary calculations are listed and described at the end of this appendix. The calculations are listed alphabetically in a table that looks like this:

Table A-3: Sample Standard Dictionary Calculations Table

Calculation Name	Calculation	Description
CALCULATION NAME (as it appears in the <i>CentreVu</i> CMS Dictionary)	Mathematical definition of the calculation.	Short description of the calculation.

You can use standard calculations in custom reports, or you can create new ones. You should never modify standard calculations.

Terminology

The following terms are often used in the database item descriptions. For definitions of other terms used in this appendix, please refer to the Glossary.

Abandoned Call A call in which the caller hung up before the call was answered or connected. Calls also can be considered abandoned if certain timers in the switch time out. See the explanations of the Wait Answer Supervision Timer (WAST), the Phantom Abandon Calls, and the Trunk No Answer Timeout (G3V2 and later) (NATO) later in this appendix. These timers are used primarily in locations where the central office trunks lack disconnect supervision.

Calls may abandon during many phases of processing, including during vector processing, after being queued to a split/skill, while ringing at an agent or station. The calls that are counted as abandons differ depending on the table. The agent table counts as abandons those split/skill ACD calls that abandoned while ringing at the agent. The split/skill table counts as abandons those calls that abandoned while queued to the split/skill or while ringing at an agent in the split/skill. The VDN table counts as abandons those split/skill ACD calls that abandoned while in the VDN, including calls in vector processing not yet queued to a split/skill (for example, calls that abandoned while listening to an announcement), calls queued to one or more splits/skills, calls ringing at agents or stations (ACD calls and calls that routed to extensions). The definitions in each table state which abandons are counted in that table.

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 to whom it was queued.

After Call Work (ACW)	Work done when the agent is not on a call. There are two types of after call work (ACW): call-related ACW and ACW not associated with a call. An agent enters a call-related ACW state by completing a manual-in call or, on Generic 1 and Generic 3 switches, by pressing the ACW key during an automatic-in call, then completing the call. <i>CentreVu</i> CMS tracks call-related after call work in the call-based ACWTIME item and in the interval-based I_ACWTIME item. An agent on a Generic 1 or Generic 3 switch can enter the ACW state without having an associated call by pressing the ACW key while available or in the AUX mode. <i>CentreVu</i> CMS will track this ACW time in the I_ACWTIME item, but not in the ACWTIME item. For Generic 1 and Generic 3 switches without the EAS feature, the ACW time not associated with an ACD call will be tracked for the split whose ACW key the agent pressed. For Generic 3 with EAS, the ACW time not associated with an ACD call will be tracked for the first skill administered for and successfully logged into by the agent. For Generic 3 Version 3 switches, an agent in ACW who reconnects to an AUXIN or AUXOUT call returns to the ACW mode when the AUXIN or AUXOUT call is terminated. The ACW time accrued following the termination of the call is ACW not associated with an ACD call and only counts as I_ACWTIME (not ACWTIME).
Agent	The login ID that staffed the extension. This term is often extended to mean the person who used the id to staff the extension. In all cases, the term agent implies measurement by <i>CentreVu</i> CMS.
Agent position (no EAS)	The combination of the agent login ID and the split the agent logged into. Agents logged into multiple splits have multiple positions associated with them. Call data are collected for each agent/split combination separately, so that it is possible to report on the calls handled and time spent by agents in each of the splits they were in. To report on the total work performed by the agent, call data must be summed for the agent over all the splits in which he or she worked.
Agent position (with EAS)	The login ID of the agent, regardless of the number of skills assigned to the agent. Data are still collected for the agent by skill, so the total work for the agent must be summed over all skills in which the agent worked.

Answered Call	The agent's state changes to ACD or DACD. The term answered is used only for split/skill and direct agent ACD calls. (See Connected for non-ACD calls.) For manual answer agents, the call is answered when the agent selects the ringing line appearance. For automatic answer agents, the call is answered directly after the zip tone is applied.
Connected Call	A non-ACD call ringing and not abandoned at an extension (not a VDN or direct agent). The System 85 and Generic 2.1 switches do not notify <i>CentreVu</i> CMS when non-ACD calls abandon, so all non-ACD calls that route to an extension are tracked as connected calls for these switch releases. For Generic 1, Generic 3, and Generic 2.2 switches, only calls that routed to an extension and did not abandon are tracked as connected calls.
Default Skill (Generic 2.2 EAS)	Every skill that ends with a "0" is called a "default skill," since every agent in the skill group is logged into this skill by default. The default skill is the first skill for each skill group.
Direct Agent ACD Call (Generic 3)	A call that queues for a specific agent. Direct agent ACD calls can be generated by an ASAI adjunct (Generic 3) or by calling an agent's login id (Generic 3 switches with EAS), given the proper class of restriction for the caller and for the receiving agent. Direct agent ACD calls are tracked as ACD calls along with split/skill ACD calls in the trunk, trunk group, VDN and vector tables. Direct agent ACD calls are tracked separately from split/skill ACD calls in the agent tables. Direct agent ACD calls are not tracked in the split/skill tables (since they are not split/skill ACD calls).
Extension Call	Any calls originated by agents and non-ACD calls received by agents. For the Generic 2.2 and Generic 3 switches, these include calls an agent makes to set up a conference or a transfer.
Hold	A call placed on hold as a result of the agent pressing the HOLD key or the hard hold feature access code, by using the TRANSFER or CONFERENCE key or by flashing the switch hook. <i>CentreVu</i> CMS only tracks calls on hold for the switch releases that notify <i>CentreVu</i> CMS when calls are placed on hold. Releases that notify <i>CentreVu</i> CMS are System 85 and Generic 2.1 for split/skill ACD calls placed on hold via the HOLD key or feature access code. Generic 2.2 and Generic 3 switches notify <i>CentreVu</i> CMS for all calls.

Nonprimary Split/Skill (G3 vectoring, G2.2 EAS)	The second and third splits/skills to which the call queues in a VDN are called “non-primary splits/skills.” They are also referred to as secondary and tertiary splits/skills, respectively.
Nonzero (0) Skill (Generic 2.2 EAS)	Any skill that does not end in “0” is called a nonzero skill.
Primary Split/Skill (G3 vectoring, G2.2 EAS)	The first split/skill the call queues to in a VDN is called the primary split/skill. If the call leaves vector processing and queues to another split/skill (for example, routes to a split/skill extension, routes to another VDN), then that split/skill becomes the primary split/skill. If the call leaves vector processing and does not queue to another split/skill (for example, routes to an extension), then there is no new primary split/skill.
Queued	A call that has been directed to a split/skill. <i>CentreVu</i> CMS is notified that an ACD call queued to a split/skill even if the call was immediately delivered to an available agent and spent no time waiting in queue. In the case of the Generic 1 and Generic 3 switches, even though the call may never have physically occupied a queue slot on the switch (because it could be delivered immediately to an agent), <i>CentreVu</i> CMS is still notified that the call queued to the split/skill.
Secondary Split/Skill (G3 vectoring, G2.2 EAS)	The second split/skill the call queues to in a VDN is called the secondary split/skill.
Skill Group (Generic 2.2 EAS)	A group of ten skills. Each consecutive ten skills ending with digits 0 through 9 constitute a skill tens group. For example, skills 10-19 form a skill tens group, as do skills 340-349.
Split/Skill ACD Call	A call that queued to a split/skill and was answered by an agent in that split/skill.
Station	An unmeasured extension, that is, an extension that is not currently staffed by an agent or that is a member of an unmeasured split/skill or hunt group.

Tertiary Split/Skill The third split/skill the call queues to in a VDN is called the
(G3 vectoring, tertiary split/skill.
G2.2 EAS)

Zero (0) Skill *See Default Skill.*
(Generic 2.2 EAS)

Database Table Names

To select data for custom reports, you must use the names listed in Table A-4 and Table A-5. The database items are described in later sections of this appendix.

Table A-4: Real-Time Table Names

Name	Data Stored
csplit	Split/Skill data for the current interval.
psplit	Split/Skill data for the previous interval.
cagent	Agent data fro the current interval.
pagent	Agent data for the previous interval.
ctkgrp	Trunk group data for the current interval.
ptkgrp	Trunk group data for the previous interval.
ctrunk	Trunk data for the current interval.
ptrunk	Trunk data for the previous interval.
cvector	Vector data for the current interval.
pvector	Vector data for the previous interval.
cvdn	VDN data for the current interval.
pvdn	VDN data for the previous interval.
ccwc	Call Work Code (CWC) data for the current interval.
pcwc	CWC data for the previous interval.

Table A-5: Historical Table Names

Name	Data Stored
hsplit	Split/Skill data for each intrahour interval.
dsplit	Split/Skill data summarized by day.
wsplit	Split/Skill data summarized by week.
msplit	Split/Skill data summarized by month.
hagent	Agent data for each intrahour interval.
dagent	Agent data summarized by day.
wagent	Agent data summarized by week.
magent	Agent data summarized by month.
htkgrp	Trunk group data for each intrahour interval.
dtkgrp	Trunk group data summarized by day.
wtkgrp	Trunk group data summarized by week.
mtkgrp	Trunk group data summarized by month.
htrunk	Trunk data for intrahour interval.
dtrunk	Trunk data summarized by day.
wtrunk	Trunk data summarized by week.
mtrunk	Trunk data summarized by month.
hvector	Vector data for each intrahour interval.
dvector	Vector data summarized by day.
wvector	Vector data summarized by week.
mvector	Vector data summarized by month.
hvdn	VDN data for each intrahour interval.
dvdn	VDN data summarized by day.
wvdn	VDN data summarized by week.
mvdn	VDN data summarized by month.
hcwc	CWC data for each intrahour interval.
dcwc	CWC data summarized by day.
wcwc	CWC data summarized by week.
mcwc	CWC data summarized by month.
call_rec	Call record data.

Table A-5: Historical Table Names (Contd)

Name	Data Stored
agex	Agent exceptions.
spex	Split exceptions
tgex	Trunk group exceptions.
vecex	Vector exceptions.
vdnex	VDN exceptions.
linkex	Link down exceptions.
mctex	Malicious call trace exceptions.
f_cday	Forecast current day configuration data by split/skill.
f_cdayrep	Current day forecast data by split/skill.

Interactions with Switch Features and Database Rules

The following features have an impact on *CentreVu* CMS database items.

Adjunct-Placed and Adjunct-Routed Calls

For Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature, *CentreVu* CMS tracks outbound calls placed by an adjunct processor or host computer on behalf of an agent and adjunct-routed calls. Database items that start with **O_** track outbound split/skill calls and database items that contain **ADJ** track adjunct-routed calls. Adjunct-placed outbound split/skill calls are also included as part of ACD database items such as **ACDCALLS**, **ACDTIME**, and **ACWTIME**. Inbound split/skill calls can be calculated as **ACDCALLS -O_ACDCALLS**.

Look-Ahead Interflow Calls

For Generic 2.2 and Generic 3 switches, *CentreVu* CMS tracks look-ahead interflow calls attempted and completed separately using database items that start with **LOOK**. Lookahead interflow calls are a subset of interflow calls.

For System 85 and Generic 2.1 switches, *CentreVu* CMS tracks look-ahead interflow calls as part of interflow calls only. The **LOOK** database items are not available for these switches.

Personal Call Tracking

For the Generic 2.2 and Generic 3 switches, *CentreVu* CMS tracks hold time, transfers and conferences for personal calls (non-ACD or extension calls).

With this feature, *CentreVu* CMS is allowed to separately track AUXIN and AUXOUT time for calls made and received when an agent has an ACD call on hold. These calls are now distinguished from time spent on other AUXIN or AUXOUT calls.

Also for Generic 3 and Generic 2.2 switches, in the VDN tables, connect calls, abandoned calls and their times will be tracked for calls that “route to” an extension. Call pickup calls are tracked as personal calls, even if an ACD call is picked up by an agent in the same split/skill.

- Data is available for calls on hold, time for calls on hold, and calls abandoned from hold. Without personal call tracking, time for calls on hold was counted as talk time.
- *CentreVu* CMS split and agent data reflect calls made while another call is on hold.
- When an agent places a call on hold, the agent returns to his or her previous state before the call unless the previous state was AVAIL. If the agent was in the AVAIL state, the agent is placed in the OTHER state until the agent dials a valid number (if the number dialed is invalid, the agent remains in OTHER), reconnects to the held call, or the held call abandons. When the agent reconnects to the held call, the agent returns to the original state for the call.
- Agents do not have a **HOLD** state. Hold time is associated with a call placed on hold. Agent states reflect the current activity of the agent.
- **HOLDTIME** is the time the call spent on hold. **HOLDCALLS** is the number of calls that were placed on hold at least once, and **HOLDABNCALLS** is the number of calls that were abandoned while on hold.
- **I_OTHERTIME** is the time during the collection interval that the agent was doing other work.

When an agent dials a valid extension, the agent's state changes to AUXOUT (if the agent was in AUX or OTHER) or to ACWOUT (if the agent was in ACW).

	Agents ACD call	Agent holds call, dials supervisor	Agent talks to supervisor	Agent Reconnects to held ACD call
/G1	I_ACDTIME			
V1 CMS)	I_ACDTIME	I_AUXTIME	I_AUXOUTTIME	I_ACD'
1 CMS)	I_ACDTIME	I_OTHERTIME	IAUXOUTTIME	I_ACD'
V2 and 1 CMS)	I_ACDTIME	I_AUXTIME, I_ACD_AUX_OUTTIME	I_AUXOUTTIME, I_ACD_AUX_OUTTIME	I_ACD'
2 and 1 CMS)	I_ACDTIME	I_OTHERTIME, I_ACD_OTHERTIME	I_AUXOUTTIME, I_ACD_AUX_OUTTIME	I_ACD'

Figure A-1: Hold Tracking for Supervisor Assist Example

Abandoned Calls

Any VDN calls (whether ACD calls or not) that route to extensions and are then abandoned are counted as abandoned calls for the VDN. (See Phantom Abandon Calls).

Phantom Abandon Calls

In international areas where central offices do not provide the switch with disconnect supervision, all calls with talk times that are less than an administrable threshold can be counted as abandoned calls. *CentreVu* CMS supports a phantom abandon call timer that can be administered to count calls with talk times less than 10 seconds as a phantom abandoned call.

The Phantom Abandon Call Timer can be set from 1 - 10 seconds. Any calls whose total talktime or connecttime is less than the set number of seconds are pegged as **PHANTOMABNS**, instead of **ACDCALLS**. The abandon time for phantom calls is the time:

- For splits: from the time the call queued until the agent or answering station hangs up.
- For VDNs: from the time the call encountered the VDN until the agent or answering station hangs up.
- For vectors: from the time the call entered the vector until the agent or answering station hangs up.

When a call leaves a vector via a “route to split” command, the call is not pegged as an outflow, and can be pegged as a phantom abandon call if the call duration is shorter than the administered phantom abandon time.

The database item **PHANTOMABNS** records the total number of such calls. Also, these calls are counted as abandoned calls (**ABNCALLS**) rather than answered calls (**ACDCALLS**). The abandon time for these calls is equivalent to the time elapsed when the agent released the call.

When the phantom abandon call timer is not enabled, short ACD calls are not counted as phantom abandons, and the values of the **PHANTOMABNS** database items are 0.

Any call that has been put on HOLD, TRANSFERRED, or CONFERENCED is not recorded as a phantom abandon, even if its duration is less than the setting of the phantom abandon call timer.

Transferred and Conferenced Calls

With Personal Call Tracking, *CentreVu* CMS tracks transferred and conferenced calls as follows:

- Transferred and conferenced calls are tracked as held calls while the call(s) wait to be transferred or added to a conference.
- When an agent ends a conference call, the agent returns to the call state prior to setting up the conference.
- If an agent is talking, places the ACD call on hold to transfer the call, and then completes the transfer, the agent goes to the AVAIL state (Auto-In) or to ACW (Manual-In) following the transfer.
- Transferred or conferenced unmeasured split, trunk group, or VDN calls are now tracked. Prior to Personal Call Tracking, these calls were not tracked.

Audio Difficulty

CentreVu CMS records the trunk associated with audio difficulty for personal calls if the trunk group is measured. Prior to Personal Call Tracking, audio difficulty was restricted to ACD calls.

Direct Agent Calling (G3)

Direct agent calls are tracked separately from other ACD calls in the *CentreVu* CMS database tables. Since direct agent calls are not split/skill calls but are calls to a specific agent, most of the direct agent data is collected in the agent tables in items starting with **DA_** or **I_DA**. Direct agent calls are counted as ACD calls in trunk, trunk group, VDN and vector tables.

Reports can be customized to include direct agent data. In the real-time split/skill table, the number of agents on direct agent calls and the number of agents in ACW associated with direct agent calls are collected, but they are subsets of the number of agents in the **OTHER** agent state, that is, doing work but not for the split/skill. Only the **OTHER** value appears on standard real-time reports. The number of direct agent calls queued and ringing appears on the Queue/Agent Summary report.

For Generic 3 switches, a direct agent call can be initiated by an adjunct.

For Generic 3 Version 2 and later Generic 3 switch releases with the EAS feature, a direct agent call can be initiated by another agent or through the “route to number” vector command. The call is treated like an ACD call and is delivered to the agent before any split/skill ACD calls queued.

Multiple Call Handling (G2, System 85, G3V4)

The Multiple Call Handling feature allows an ACD agent to put a call on hold and push the Auto-In or Manual-In key to become available to take another ACD call. *CentreVu* CMS tracks the hold state as a call state, not an agent state. This means that hold time is counted for each call. For example, an agent who places two calls on hold for 5 minutes to answer a third accrues 10 minutes hold time for the two calls in the space of only 5 minutes on the clock.

For Generic 2.1 and System 85 switches, an agent with ACD calls on hold continues to accrue interval-based talk time. The call-based ACD talk time is stopped while the calls are on hold, until the agent reconnects to one of them.

Hold Tracking (G3, G2, System 85)

CentreVu CMS tracks and reports hold state for calls put on hold for Generic 3, Generic 2, and System 85 switches. This means that *CentreVu* CMS is notified when an agent puts a call on hold. For Generic 3 and Generic 2.2 switches, *CentreVu* CMS tracks **all** calls put on hold. For Generic 2.1 and System 85 switches, *CentreVu* CMS tracks **split** ACD calls put on hold.

Ringling (G3, G2, System 85)

CentreVu CMS displays the number of agents with split/skill ACD calls ringing at their voice terminals. This information is only meaningful if agents' voice terminals are administered to ring rather than receive zip tone. The switch sends a message to *CentreVu* CMS when a call is directed to an agent and alerting begins. Currently, this is only supported on System 85, Generic 2, and Generic 3 switches. If you do not have one of these switches, the ring state columns in standard reports display blanks.

Transfer Tracking

For Generic 3 and Generic 2.2 switches, *CentreVu* CMS tracks all transferred calls made by measured agents. For Generic 2.1 and System 85 switches, transferred calls to a VDN are tracked in the VDN tables. The agent and split/skill reports display these transfers.

Transfers into a split/skill, agent, or VDN are not tracked explicitly (for example, the party initiating the transfer is credited with a transfer, not the party receiving the transfer).

Conference Tracking (G2.2 and G3)

CentreVu CMS tracks conferenced calls for Generic 2.2 and Generic 3 switches. Agents who transfer a call by conferencing and then dropping off are credited with a conference and not a transfer.

Call Pickup

CentreVu CMS tracks ACD calls that are answered by an agent using the Call Pickup feature as AUXIN calls.

Agents in Multiple Splits/Skills

CentreVu CMS requires agents to log into multiple splits/skills using the same login ID for all splits/skills. This allows *CentreVu* CMS to track the agent as a single person and to coordinate the data for that agent.

Real-time reports assume that agents can only be doing one thing at a time. Agents can be in the following states: AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, or UNSTAFFED. When an agent logs into multiple splits/skills, the split/skill number(s) are shown on the report(s) for the states (ACD, DACD, ACW, AVAIL, and RING) associated with the call. For example, if an agent logged into Split/Skill 1 and Split/Skill 2 and answered an ACD call for Split/Skill 2, the split/skill number shown in the standard real-time report(s) is “2”.

For splits, as long as the agent is not on a call or the agent is in AUX and is available in at least some splits, real-time reports show all the splits in which the agent is available. For skills, the agent cannot be available in some skills and in AUX in others. The Skill Status report shows all the agent's login skills. If an ACD call is ringing the agent's voice terminal, the real-time report shows the RING state. If a personal call is ringing at the agent's voice terminal, the real-time report shows the OTHER state. No split/skill is shown for the AUX and UNKNOWN states because these states are not split/skill related. The agent is shown as being in AUX **only** if the agent is in AUX in **all** splits/skills.

With real-time split/skill reports, if an agent is available in Split 1 and in AUX in Split 2 and you request the Split/Skill report which displays both splits, the report shows the agent as AVAIL in Split 1 and as OTHER in Split 2.

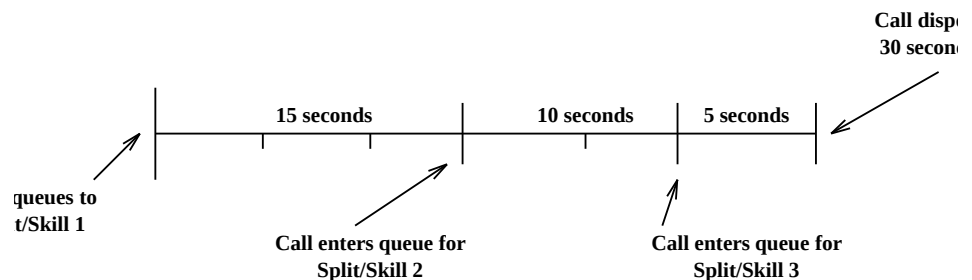
Multiple-Split/ Skill Queuing (G3)

On a Generic 3 switch, calls can be queued to as many as three splits/skills simultaneously. For the first split/skill to which a call is queued (primary split/skill), *CentreVu* CMS counts an answer, outflow (leaves vector processing or is answered by an agent in another split/skill), or abandon. For the second or third split/skill to which a call is queued, *CentreVu* CMS counts an answer and an inflow if the call is answered in that split/skill. If the call is answered in another split, the call outflows, or the caller abandons, *CentreVu* CMS counts the call as dequeued.

Note

If a call rings in a second or third split and then abandons, an inflow and abandon is counted for that split; an outflow or dequeue is counted for the other splits.

In the following Multiple-Split/Skill Queuing example, you see the call queue to Split/Skill 1 first, then queue to Split/Skill 2 after 15 seconds, then after another 10 seconds, the call enters Split/Skill 3's queue. The call is now queued to Splits/Skills 1, 2, and 3 at the same time. See the example for disposition of the call for all three splits if the call was abandoned, was answered, or routed to a VDN.



situation	Split/Skill 1	Split/Skill 2	Split/Skill 3
from queue	ABANCALLS ABNTIME = 30	DEQUEUECALLS DEQUETIME = 15	DEQUEUECALLS DEQUETIME = 15
answered	OUTFLOWCALLS OUTFLOWTIME = 30	ACDCALLS ANSTIME = 15 INFLOWCALLS	DEQUEUECALLS DEQUETIME = 15
VDN	OUTFLOWCALLS OUTFLOWTIME = 30	DEQUEUECALLS DEQUETIME = 15	DEQUEUECALLS DEQUETIME = 15
from Split/Skill 2	OUTFLOWCALLS OUTFLOWTIME = 30	ABANCALLS ABNTIME=15	DEQUEUECALLS DEQUETIME = 15

Figure A-2: Multiple-Split/Skill Queuing Example

Agent State Tracking at Login

CentreVu CMS does not know what state agents are in immediately after they have logged in (or right after the link to the switch has come up) until it is notified by the switch of the agent's current state. The time the agent spent in this state is tracked as **I_OTHERTIME** and **TI_OTHERTIME** and the agent's state is displayed as **OTHER**.

For System 85 and Generic 2 switches, the time between logging in and moving to the AUX state depends on the time it takes for the agent logging in to release the call or go on-hook, completing the login sequence.

For Generic 1 and Generic 3 switches, the time between logging in and moving to the AUX state depends on the time it takes for the agent logging in to release the call or go on-hook or for the switch to time the call out (about 5 to 10 seconds).

Converse Vector Command (G3V2 and later)

The “converse” command integrates Voice Response Units (VRUs) and the vectoring feature. 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 the VRU through the switch to an ASAI adjunct processor.

Go To Vector

When a “go to vector” command is executed, an outflow and a “goto call” are counted for the first vector and an inflow is counted for the second vector. The timing and statistics associated with the first vector for that call stop and are started for the second vector. The call remains in the original VDN, however, and tracking in that VDN continues.

Outbound Call Management (OCM)

Outbound call management calls to splits/skills are included as a subset of the ACD call database items (talk time, ringing, ACW, etc.). OCM calls also have their own database items which start with **O_** in the agent, split/skill, trunk and trunk group tables. Inbound split/skill calls can be calculated as **ACDCALLS - O_ACDCALLS**.

Redirection on No Answer (G3V2 and later)

When a ringing call times out and is requeued to the same split/skill by the Redirection on No Answer feature (Generic 3 Version 2 and later switches), an outflow and an inflow are counted for the split/skill. Thus, the redirected call appears as two offered calls to the split/skill. The database item **NOANSREDIR** is also incremented. The unique calls offered to the split/skill can then be calculated by subtracting the value of **NOANSREDIR** from **CALLSOFFERED**.

Note

This assumes that the split/skill is set up so that split/skill calls do not cover back to the same split/skill except through the Redirection on No Answer feature. If they can cover back to the same split/skill, each call that does this is counted as an outflow and inflow to that same split/skill. In this case, **NOANSREDIR** is **not** incremented.

Tracking of Times/Duration

In the trunk, trunk group, and VDN tables, the **TIME** items are typically based on the IDLE message at the end of the call, unless the items are queue time or ring time or other similar items.

In the split/skill and vector tables, the **TIME** items are typically based on when the call leaves the split/skill/vector and the disposition is known (for example, when the DFWD is received and the call outflows or when the caller starts hearing the forced busy).

Trunk No Answer Timeout (G3V2 and later)

This timer starts when the switch first seizes the trunk and is stopped when answer supervision is sent for the call. If it times out, the call is dropped by the switch and the *CentreVu* CMS counts the call as an abandoned call. (This timer is for switches in countries that lack disconnect supervision for trunks. The assumption is that the caller abandoned long ago.)

Vector Disconnect Timer (G3V2 and later)

The Vector Disconnect Timer is started when a call begins vector processing and stops when the call is routed successfully. This means that the call rings at a destination or the trunk is connected to a destination. In the case of adjunct routing, the timer is stopped at the point at which the call is routed successfully. If the timer times out, the call is dropped by the switch and the *CentreVu* CMS records a forced disconnect for the call.

Wait Answer Supervision Timer (WAST)

This timer is started when a call begins ringing at an agent or station. It is stopped if the call is answered or connected or redirected. Once a redirected call begins ringing, the timer is restarted. In the case of redirection on no answer, if the call cannot be redirected, the WAST is restarted. If the WAST times out, the call is dropped by the switch and the *CentreVu* CMS records an abandon (from ringing) for the call.

Split/Skill Database Items

The Split/Skill database item descriptions (Table A-6) apply to real-time and historical items.

The **Type** column refers to **Cumulative (C)**, **Administrative (A)**, or **Status (S)** data. Cumulative and Administrative items typically apply to both the current and previous interval real-time table. Status items only apply to the current interval real-time tables.

Real-Time split/skill database items apply to the Current Interval Split/Skill (csp`lit`) and Previous Interval Split/Skill (psp`lit`) tables. The real-time indexes are **ACD** and **SPLIT**.

Historical split/skill database items apply to the Intrahour Split/Skill (hspl`lit`), Daily Split/Skill (dspl`lit`), Weekly Split/Skill (wspl`lit`), and Monthly Split/Skill (mspl`lit`) tables, except as noted. The historical indexes are **SPLIT** and **ROW_DATE**.

Table A-6: Split/Skill Database Items

Database Item	Description	Type
ABNCALLS	Number of CALLSOFFERED that were abandoned while in queue or ringing at an agent position. For System 85, Generic 2.1, and Generic 3 switches with vectoring, this also includes calls that were queued to the split/skill and abandoned while listening to a forced disconnect announcement. When a call abandons while queued to multiple splits/skills, only the primary split/skill pegs ABNCALLS . Calls that are ringing an agent and then abandon peg as abandons for the split/skill they were ringing. ABNCALLS includes O_ABNCALLS and PHANTOMABNS .	C
ABNCALLS1-10	Number of ABNCALLS that were abandoned during the collection interval in each of the service level increments PERIOD1 through PERIOD9 (as defined on the ACD Administration: Call Profile window). ABNCALLS10 counts calls that abandoned after PERIOD9 .	C
ABNRINGCALLS	Number of ABNCALLS that abandoned while ringing at an agent position. Available with Generic 2 and Generic 3 switches.	C
ABNTIME	Time callers waited in queue and ringing before abandoning. For phantom abandon calls, this includes the time until the agent releases the call.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
ACCEPTABLE	Number of ACDCALLS answered by an agent within the acceptable service level (SERVICELEVEL), as defined on the ACD Administration: Call Profile window.	C
ACD (index)	ACD number for which data was collected.	A
ACDAUXOUTCALLS	Number of AUXOUTCALLS agents in the split/skill made with at least one split/skill ACD call on hold. For agents in multiple splits (Generic 3 switches), the call is counted for the split/skill of the last ACD call the agent put on hold. ACDAUXOUTCALLS includes calls made to transfer or conference the ACD call. Available with Generic 2.2 and Generic 3 switches.	C
ACDCALLS	Number of CALLSOFFERED calls that were answered by an agent in the split/skill. ACDCALLS includes BACKUPCALLS and O_ACDCALLS .	C
ACDCALLS1-10	Number of ACDCALLS during the collection interval that were answered in each of the service level increments PERIOD1 through PERIOD9 (as defined on the ACD Administration: Call Profile window). ACDCALLS10 is the number of calls answered after the last increment PERIOD9 .	C
ACDTIME	Talk time of all ACDCALLS (does not include HOLDTIME , but does include O_ACDTIME).	C
ACWINCALLS	Number of inbound extension calls received by agents while in ACW for split/skill ACD calls or in ACW not associated with a call.	C
ACWINTIME	Talk time of all ACWINCALLS . ACWINTIME does not include hold time on Generic 2.2 and Generic 3 switches. It does include time spent on calls received while in ACW not associated with an ACD call. ACWINTIME includes O_ACDTIME and O_ACWTIME .	C
ACWOUTADJCALLS	Number of ACWOUTCALLS agents in the split/skill made with at least one split/skill ACD call on hold. For agents in multiple splits (Generic 3 switches only), the call is counted for the split/skill of the last ACD call the agent put on hold. ACDAUXOUTCALLS includes calls made to transfer or conference the ACD call. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
ACWOUTCALLS	Number of outbound extension calls made by agents while in ACW for split/skill ACD calls or in ACW not associated with a call. ACWOUTCALLS includes ACWOUTADJCALLS and ACWOUTOFFCALLS .	C
ACWOUTOFFCALLS	Number of ACWOUTCALLS that were made to a destination outside the switch. If such calls are placed by an adjunct on behalf of an agent, they are also counted as ACWOUTADJCALLS . Available with Generic 2.2 and Generic 3 switches.	C
ACWOUTOFFTIME	Talk time of all ACWOUTOFFCALLS (does not include hold time). Available with Generic 2.2 and Generic 3 switches.	C
ACWOUTTIME	Talk time of all ACWOUTCALLS . ACWOUTTIME does not include hold time on Generic 2.2 and Generic 3 switches. It does include time spent on calls made while in ACW not associated with an ACD call. ACWOUTTIME includes ACWOUTOFFTIME .	C
ACWTIME	Duration of all after call work associated with ACDCALLS . ACWTIME includes ACWINTIME . It does not include time spent in ACW not associated with an ACD call (the agent pressed the ACW button while not on an ACD call).	C
AGINRING (real-time)	Current number of POSITIONS at which split/skill calls are ringing for this split/skill. When an agent makes or answers a personal call while an ACD call is ringing, that position is no longer counted in AGINRING (because the agent is then on an AUXIN/OUT call). Agents talking on ACD calls who receive a forced MCH call (Generic 3 Version 4 switches only) are also counted in AGINRING . Available with Generic 2 and Generic 3 switches.	S
ANSTIME	Time spent by callers in queue or ringing before being answered by an agent.	C
ASA (real-time)	Switch-provided rolling average speed of answer for this split/skill. This value is sent to <i>CentreVu</i> CMS whenever it changes on the switch (when a call is answered). EWT and ASA should not be expected to match. ASA gives a historical perspective, while EWT changes constantly to match current conditions such as queue length and staffing changes. Available with Generic 3 Version 4 switches.	S

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
ASSISTS	Number of times supervisor was called (supervisor assists) by agents on split/skill calls, direct agent ACD calls, or in call-related ACW for this split/skill or for direct agent calls attributed to the split/skill.	C
AUXINCALLS	Number of inbound extension calls received by agents while in AUX (auxiliary work), AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold.	C
AUXINTIME	Talk time of all AUXINCALLS (does not include hold time on Generic 2.2 and Generic 3 switches).	C
AUXOUTADJCALLS	Number of AUXOUTCALLS an adjunct processor or host computer placed on behalf of an agent. If such calls are placed to off-switch destinations, then they are also counted as AUXOUTOFFCALLS . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
AUXOUTCALLS	Number of outbound extension calls made by agents while in AUX (auxiliary work), AVAILABLE, or, for Generic 2.2 and Generic 3 switches with an ACD or AUXIN/AUXOUT call on hold. AUXOUTCALLS includes ACDAUXOUTCALLS , AUXOUTADJCALLS , and AUXOUTOFFCALLS .	C
AUXOUTOFFCALLS	Number of AUXOUTCALLS that were made to a destination outside the switch. If such calls are placed by an adjunct on behalf of an agent, they are also counted as AUXOUTADJCALLS . Available with Generic 2.2 and Generic 3 switches.	C
AUXOUTOFFTIME	Talk time of all AUXOUTOFFCALLS (does not include hold time). AUXOUTOFFTIME is included in AUXOUTTIME . Available on Generic 2.2 and Generic 3 switches.	C
AUXOUTTIME	Talk time of all AUXOUTCALLS . AUXOUTTIME does not include hold time, but does include AUXOUTOFFTIME .	C
AVAILABLE (real-time)	Current Number of POSITIONS that are available in this split/skill.	S

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
BACKUPCALLS	Number of ACDCALLS that were delivered to this split/skill by a vector command other than “queue to main”. This includes calls delivered by “messaging split/skill”, “check backup”, “route to” split/skill, and “redirect on no answer” vector commands. BACKUPCALLS also includes direct agent calls. MAINCALLS does not include direct agent calls. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	C
BUSYCALLS	Number of CALLSOFFERED calls that were given a busy signal by the switch. This happens when a “busy” vector command is executed while the call is queued to this split/skill (and this is the primary split/skill the call is queued to) or if a call queued to this split/skill forwards to another split/skill whose queue is full.	C
BUSYTIME	Time the callers waited in queue until hearing busy tone for all BUSYCALLS.	C
CALLSOFFERED	Number of calls that queued to the split/skill. This does not include calls on Generic 1 and Generic 3 switches that could not queue to the split/skill because the queue was full or there was no queue. CALLSOFFERED = ACDCALLS + ABNCALLS + BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUECALLS	C
CONFERENCE	Number of ACDCALLS that were conferenced. Available on Generic 2.2 and Generic 3 switches.	C
DA_ACWINCALLS	Number of in calls while ACW for direct agent call.	
DA_ACWINTIME	Duration of all DA_ACWINCALLS .	
DA_ACWOCALLS	Number of out calls while ACW for direct agent call.	
DA_ACWOTIME	Duration of all DA_ACWOCALLS .	
DA_INACW (real-time)	Current number of POSITIONS that are in after call work associated with direct agent calls. This includes agents who are on ACWIN/OUT calls. DA_INACW is a subset of OTHER. Total number of agents in after call work = INACW + DA_INACW. DA_INACW includes ONACWIN and ONACWOUT. Available on Generic 3 switches with ASAI or EAS.	S
DA_INQUEUE (real-time)	Current number of direct agent ACD calls waiting in this split/skill queue. Available on Generic 3 switches.	S

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
DA_INRING (real-time)	Current number of direct agent ACD calls ringing at an agent in this split/skill. Available on Generic 3 switches with ASAI or EAS.	S
DA_OLDEST (real-time)	Time oldest call waiting was placed in agent queue.	S
DA_OLDESTCALL (real-time)	Length of time that the oldest direct agent ACD call has been waiting in queue or ringing at an agent position. Available on Generic 3 switches with ASAI or EAS.	S
DA_ONACD (real-time)	Current number of POSITIONS that are on direct agent ACD calls. DA_ONACD is a subset of OTHER . Total number of agents on split/skill and direct agent ACD calls = ONACD + DA_ONACD . Available on Generic 3 switches with ASAI or EAS.	S
DEQUECALLS	Number of calls that queued to this split/skill as a nonprimary split/skill, but whose disposition was recorded in another split/skill (as answered, abandoned, outflowed, busy, or forced disconnect). Available on Generic 2.2 switches with EAS and Generic 3 switches.	C
DEQUETIME	Amount of time DEQUECALLS waited in this split/skill queue before dequeuing. Available on Generic 2.2 switches with EAS and Generic 3 switches.	C
DISCCALLS	For Generic 2.2 and Generic 3 Version 2 and later Generic 3 switches, this is the number of INCALLS that were disconnected by the switch via the “disconnect” vector command. For System 85, Generic 2.1, and Generic 3 switches prior to Version 2 load 100, this is the number of INCALLS that were given a forced disconnect announcement, listened to the entire announcement, then were disconnected by the switch. For the Generic 3 Version 2 switch release, this also includes the number of INCALLS that were disconnected by the switch when the vector disconnect timer expired or that reached the end of vector processing without being queued.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
DISCTIME	Time all DISCCALLS spent in this VECTOR. For Generic 2.2 and Generic 3 Version 2 (load 100 and later) switches, this is the time until the end of the announcement or until the trunk drops (the caller hangs up without listening to the entire announcement). For System 85, Generic 2.1, and Generic 3 (prior to Version 2 load 100) switches, this is the time until the announcement ends, and the caller is disconnected by the switch. For the Generic 3 Version 2 switch, if the call is disconnected due to the expiration of the vector disconnect timer or because it reached the end of vector processing without queuing, this is the time until the caller is disconnected by the switch.	C
EVENT1-9	Number of times each event (stroke count) key (keys 1 to 9) was pressed by agents on split/skill or direct agent ACD calls or in after call work associated with an ACD call for this split/skill. Available with System 85, Generic 2, and Generic 3 switches.	C
EWTHIGH (real-time)	Switch-calculated expected wait time for calls queued at high priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at HIGH priority until being served. Time spent ringing at the agent is not included in this estimate. EWT and ASA should not be expected to match. ASA gives a historical perspective, while EWT changes constantly to match current conditions such as queue length and staffing changes. Available with Generic 3 Version 4 switches.	S
EWTLOW (real-time)	Switch-calculated expected wait time for calls queued at low priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at LOW priority until being served. Time spent ringing at the agent is not included in this estimate. EWT and ASA should not be expected to match. ASA gives a historical perspective, while EWT changes constantly to match current conditions such as queue length and staffing changes. Available with Generic 3 Version 4 switches.	S

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
EWTMEDIUM (real-time)	Switch-calculated expected wait time for calls queued at medium priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at MEDIUM priority until being served. Time spent ringing at the agent is not included in this estimate. EWT and ASA should not be expected to match. ASA gives a historical perspective, while EWT changes constantly to match current conditions such as queue length and staffing changes. Available on Generic 3 Version 4 switches.	S
EWTTOP (real-time)	Switch-calculated expected wait time for calls queued at top priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at TOP priority until being served. Time spent ringing at the agent is not included in this estimate. EWT and ASA should not be expected to match. ASA gives a historical perspective, while EWT changes constantly to match current conditions such as queue length and staffing changes. Available on Generic 3 Version 4 switches.	S
HIGHCALLS	Number of ACDCALLS with high priority that were answered by agents in this split/skill. For Generic 3 switches with vectoring, this includes calls that were queued to a split with priority using the "route to" or "messaging split" vector commands, calls that queued directly to a non-vector-controlled split with priority, and calls that intraflowed to a split with priority. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	C
HOLDABNCALLS	Number of times split/skill ACD calls abandoned while on hold. Available on System 85, Generic 2, and Generic 3 switches.	C
HOLDCALLS	Number of split/skill ACD calls that were placed on hold at least once. Available on System 85, Generic 2, and Generic 3 switches.	C
HOLDTIME	Time spent by split/skill ACD callers on hold. Available on System 85, Generic 2, and Generic 3 switches.	C
I_ACD AUXINTIME	Time during the collection interval that POSITIONS were talking on AUXIN calls with at least one split/skill ACD call on hold. Available on Generic 2.2 and Generic 3 switches.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
I_ACD_AUX_OUTTIME	Time during the collection interval that POSITIONS spent dialing (Generic 2.2 switches) and talking on AUXOUT calls with at least one split/skill ACD call on hold. Available on Generic 2.2 and Generic 3 switches.	C
I_ACD_OTHERTIME	Time during the collection interval that POSITIONS spent in the OTHER state (dialing an outgoing call with a Generic 3 switch, with a ringing personal call with Generic 3, or with calls on hold and with no other state selected) with at least one split/skill ACD call on hold. Available on Generic 2.2 and Generic 3 switches.	C
I_ACDTIME	Time during the collection interval that POSITIONS were on split/skill ACD calls. This includes time on O_ACD_CALLS as well as on ACD_CALLS .	C
I_ACWINTIME	Time during the collection interval that POSITIONS were in ACW for this split/skill and on inbound extension calls.	C
I_ACWOUTTIME	Time during the collection interval that POSITIONS were in ACW for this split/skill and on outbound extension calls.	C
I_ACWTIME	Time during the collection interval that POSITIONS were in ACW for split/skill ACD calls or were in ACW not associated with an ACD for this split/skill. I_ACWTIME includes I_ACWINTIME and I_ACWOUTTIME .	C
I_AUXINTIME	Time during the collection interval that POSITIONS were in AUX work, AVAILABLE, or, for Generic 2.2 and Generic 3 switches, had an ACD or AUXIN/AUXOUT call on hold and were on inbound extension calls. I_AUXINTIME includes I_ACD_AUXINTIME .	C
I_AUXOUTTIME	Time during the collection interval that POSITIONS were in AUX work, AVAILABLE or, for Generic 2.2 and Generic 3 switches, had an ACD or AUXIN/AUXOUT call on hold and were on outbound extension calls. I_AUXOUTTIME includes I_ACD_AUX_OUTTIME .	C
I_AUXTIME	Time during the collection interval that POSITIONS were in AUX. I_AUXTIME includes I_AUXINTIME and I_AUXOUTTIME .	C
I_AVAILTIME	Time during the collection interval that POSITIONS were available for calls from this split/skill.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
I_OTHERTIME	Time during the collection interval that POSITIONS were doing other work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent had a direct agent call ringing, was on a direct agent call or in ACW for a direct agent call; the agent dialed to place a call or activate a feature; or a personal call rang at the agent with no other activity. For Generic 1 and Generic 3 switches without EAS, agents were logged into multiple splits and doing work for a split other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents were logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW or on a personal call attributed to a skill other than this one). For all switches, I_OTHERTIME is collected for the time period after the link to the switch comes up or after the agent logs in and before the <i>CentreVu</i> CMS receives notification of the agent's state from the switch. I_OTHERTIME includes I_ACDOTHERTIME.	C
I_RINGTIME	Time during the collection interval that POSITIONS had split/skill ACD calls ringing. If an agent changes work modes or makes/answers another call instead of answering the ringing call, I_RINGTIME stops accumulating. RINGTIME is the time the caller spends ringing and is independent of agent activity. Available on Generic 2 and Generic 3 switches.	C
I_STAFFTIME	Time during the collection interval that POSITIONS were staffed (logged in). I_STAFFTIME = I_AVAILTIME + I_ACDTIME + I_ACWTIME + I_AUXTIME + I_RINGTIME + I_OTHERTIME	C
INACW (real-time)	Current number of POSITIONS that are in ACW for this split/skill. This includes agents on ACWIN/AUXOUT calls as well as agents in ACW not associated with an ACD call. It does not include agents in ACW for direct agent ACD calls. INACW includes ONACWIN and ONACWOUT.	S
INAUX (real-time)	Current number of POSITIONS that are in AUX work for all splits/skills, or on AUXIN/AUXOUT calls attributed to this split. INAUX includes ON AUXIN and ON AUXOUT.	S

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
INCOMPLETE	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
INFLOWCALLS	Number of calls that were redirected to the split/skill queue from another queue. When a call leaves a vector (by routing to a split/skill or routing to another VDN, for example), the next split/skill to which the call queues is not credited with an inflow. On Generic 3 switches with vectoring and Generic 2.2 switches with EAS with multiple split/skill queueing, calls answered by an agent in a nonprimary split/skill are counted as inflows to that split/skill. Calls that abandon from ringing an agent in a nonprimary split/skill are also counted as inflows to that split/skill. On Generic 2.2 switches with EAS, calls that queue to the zero skill after having been queued to a nonzero skill are counted as inflows to the zero skill. Similarly, calls that queue to a nonzero skill after having been queued to a zero skill are counted as inflows to the nonzero skill. Calls that are queued to one skill group and are subsequently queued to another are not counted as inflows to the subsequent skill group. On Generic 3 Version 2 switches, calls that ring at an agent and then are requeued to the same split/skill by the Redirect on No Answer feature are counted as inflows to the split/skill they are requeued to. INFLOWCALLS includes NOANSREDIR.	C
INQUEUE (real-time)	Current number of split/skill ACD calls waiting in queue.	S
INRING (real-time)	Current number of split/skill ACD calls which are ringing at agent positions for this split/skill. Available on Generic 2 and Generic 3 switches.	S
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to a destination outside the switch.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
INTRVL	Number of minutes in the intrahour interval (15, 30, 60). INTRVL applies to intrahour intervals only.	A
LOWCALLS	Number of ACDCALLS with low (applies to switches with vectoring) or no (applies to switches with no vectoring) priority that were answered by this split/skill.	C
MAXINQUEUE	Maximum number of calls in queue at any time during the collection interval.	C
MAXOCWTIME	Maximum time during the collection interval that a call waited in queue ringing before an agent answered in this split/skill, the caller abandoned, or the call was redirected, received a busy signal, or was disconnected.	C
MAXSTAFFED	Maximum number of agent POSITIONS that were staffed during the collection interval.	C
MEDCALLS	For switches with vectoring, the number of ACDCALLS with medium priority that were answered by agents in the split/skill. For Generic 3 switches with vectoring, MEDCALLS includes calls that were queued to a split with no priority using the “route to” or “messaging split” vector commands, calls that queued directly to a non-vector-controlled split with no priority, and calls that intraflowed to a split with no priority. For switches without vectoring, the number of ACDCALLS with “yes” priority that were answered by agents in the split/skill.	C
NOANSREDIR	Number of split/skill ACD calls that rang at agent positions in the split/skill and then were automatically redirected back to the split/skill queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later switches.	C
O_ABNCALLS	Number of OUTCALLS on this trunk that were offered to ACD splits/skills and were abandoned by the far end. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_ACDCALLS	Number of ACDCALLS that were placed by an adjunct (outbound predictive dialing). O_ACDCALLS includes DA_ACDCALLS . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
O_ACDTIME	Talk time of all O_ACDCALLS (does not include HOLDTIME). Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_ACWTIME	Duration of all after call work associated with O_ACDCALLS . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_OTHERCALLS	Number of outbound calls queued to this split/skill that were not answered or abandoned as ACD split/skill calls. These include forced busy calls and calls with unknown dispositions.	C
OLDESTCALL (real-time)	Current number of seconds the oldest split/skill ACD call has been waiting in queue or ringing at an agent position.	S
ONACD (real-time)	Current number of POSITIONS that are on inbound and outbound ACD calls to this split/skill. ONACD includes ONACDOUT .	S
ONACDAUXOUT (real-time)	Current number of POSITIONS that are on AUXOUT calls with one or more ACD calls on hold for this split/skill. ONACDAUXOUT is a subset of ONACDOUT .	S
ONACDOUT (real-time)	Current number of POSITIONS that are on outbound calls to this split/skill. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
ONACWIN (real-time)	Current number of POSITIONS that are in ACW and on inbound extension calls. These agents also appear in either INACW or DA_INACW . ONACWIN includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
ONACWOUT (real-time)	Current number of POSITIONS that are in ACW and on outbound extension calls. These agents also appear in either INACW or DA_INACW . ONACWOUT includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
ONAXIN (real-time)	Current number of POSITIONS that are in AUX work or AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on inbound extension calls.	S

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
ON_AUXOUT (real-time)	Current number of POSITIONS that are in AUX work or AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on outbound extension calls.	S
ON_HOLD (real-time)	Current number of split/skill calls on hold at agent positions. Available on System 85, Generic 2, and Generic 3 switches.	S
OTHER (real-time)	Current number of POSITIONS doing OTHER work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent is on a direct agent call or in ACW for a direct agent call; the agent is dialing to place a call or to activate a feature; a personal call or a direct agent ACD call is ringing with no other activity. For Generic 1 and Generic 3 switches without EAS, agents are logged into multiple splits and doing work for a split other than this one (on an ACD call, in ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents are logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a skill other than this one). Agent POSITIONS shows up as in OTHER directly after the link to the switch comes up and directly after the agents log in before the <i>CentreVu</i> CMS is notified of the agent's work state. OTHER includes DA_ONACD and DA_INACW .	S
OTHERCALLS	Number of calls offered to this split/skill that did not abandon and were not answered by an ACD agent for this split/skill. OTHERCALLS = BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUEUECALLS	S
OTHERTIME	Time OTHERCALLS waited in queue until the disposition was known and the call left the split.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
OUTFLOWCALLS	Number of CALLSOFFERED that were redirected to another destination while queued to this split/skill. This can happen if: The call intraflowed or interflowed. The split/skill call forwarding was active. This can happen with vectoring: • if the call was routed to another VDN • if the call routed to a number or digits • if the call queued to another split (Generic 2 switches) • if the call queued to a messaging split/skill (Generic 3 switches) • if the call queued to this split/skill as the primary split/skill, and the call left vector processing and was redirected • by queuing to multiple splits/skills and being answered by an agent in another • split/skill if queued to this split/skill as primary (Generic 3 and Generic 2.2 switches with EAS) • by queuing to multiple splits/skills if queued to this split/skill as primary • by ringing at an agent position in another split/skill and then abandoning if queued to this split/skill as primary (Generic 3 and Generic 2.2 switches with EAS) • by requeuing to the same split/skill via the Redirection on No Answer feature (Generic 3 Version 2 switches). On Generic 2.2 switches with EAS, if a call is queued to skills other than the zero skill and then is queued to the zero skill, the call is counted as an outflow from the primary skill to which it queued. Similarly, a call queued to the zero skill which is subsequently queued to a nonzero skill counts as an outflow from the zero skill. Calls that queue to one skill group and then subsequently queue to another skill group count as outflows from all the skills to which they were queued in the first skill group. OUTFLOWCALLS includes INTERFLOWCALLS and NOANSREDIR.	C
OUTFLOWTIME	Time OUTFLOWCALLS waited in queue or ringing before being redirected.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
PERIOD 1-9	Length, in seconds, of each service level increment as defined in the ACD Administration: Call Profile window. Each increment represents a progressively longer wait time. <i>CentreVu</i> CMS counts answered or abandoned calls that wait beyond the last increment (PERIOD9) in either ACDCALLS10 or ABNCALLS10 .	A
PERIODCHG	Indicates whether or not service level increments PERIOD1-9 (as defined on the ACD Administration: Call Profile window) changed during the collection interval. Valid values for PERIODCHG are YES and NO.	A
PHANTOMABNS	Number of split/skill ACD calls with talk time less than the value of the phantom abandoned call timer. Applies to Generic 3 switches only.	C
POSITIONS	For switches without EAS, current number of agent positions that are assigned to this SPLIT . For switches with EAS, current number of agent positions logged into this SPLIT .	A
RINGCALLS	Number of this split's/skill's calls that rang at agent positions. Available on Generic 2 and Generic 3 switches.	C
RINGTIME	Time this split/skill's calls spent ringing at agent positions independent of final disposition and other agent activity. I_RINGTIME is the time the agent spends with ringing calls and is affected by other agent activity. RINGTIME is the time the caller spends ringing and is independent of agent activity. Available on Generic 2 and Generic 3 switches.	C
ROW_DATE (index)	Date on which data was collected.	C
SERVICELEVEL	Number of seconds within which calls must be answered in order to be considered acceptable (as defined on the ACD Administration: Call Profile window).	A
SPLIT (index)	Split/skill number for which data was collected.	A
STAFFED (real-time)	Current number of POSITIONS that are staffed (logged in). STAFFED = AVAILABLE + AGINRING + ONACD + INACW + INAUX + OTHER	S
STARTTIME	Start time for the interval data was collected. Applies to the interval table only.	C

Table A-6: Split/Skill Database Items (Contd)

Database Item	Description	Type
SVCLEVELCHG	Indicates whether or not the service level was changed during the collection interval. Valid values for SVCLEVELCHG are YES and NO.	A
TOPCALLS	Number of ACDCALLS with top priority that were answered by agents in this split/skill. Available with System 85, Generic 2, and Generic 3 switches with vectoring.	C
TRANSFERRED	Number of ACDCALLS that were transferred to another destination. For Generic 1 switches, TRANSFERRED includes transfers to a measured split or transfers from a measured trunk to a measured trunk. For System 85 and Generic 2.1 switches, TRANSFERRED includes transfers to a VDN or a split/skill. For Generic 2.2 and Generic 3 switches, TRANSFERRED includes all split/skill calls transferred.	C

Switch Cross Reference

Table A-7 lists the Split/Skill database items and the switch(es) each item applies to.

Table A-7: Switch Cross Reference for Split/Skill Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ABNCALLS	X	X	X	X	X	X	X
ABNCALLS1-10	X	X	X	X	X	X	X
ABNRINGCALLS			X	X	X	X	X
ABNTIME	X	X	X	X	X	X	X
ACCEPTABLE	X	X	X	X	X	X	X
ACD (index)	X	X	X	X	X	X	X
ACDAUXOUTCALLS				X	X	X	X
ACDCALLS	X	X	X	X	X	X	X
ACDCALLS1-10	X	X	X	X	X	X	X
ACDTIME	X	X	X	X	X	X	X
ACWINCALLS	X	X	X	X	X	X	X
ACWINTIME	X	X	X	X	X	X	X
ACWOUTADJCALLS				X	X	X	X
ACWOUTCALLS	X	X	X	X	X	X	X
ACWOUTOFFCALLS				X	X	X	X
ACWOUTOFFTIME				X	X	X	X
ACWOUTTIME	X	X	X	X	X	X	X
ACWTIME	X	X	X	X	X	X	X
AGINRING			X	X	X	X	X
ANSTIME	X	X	X	X	X	X	X
ASA							X
ASSISTS	X	X	X	X	X	X	X
AUXINCALLS	X	X	X	X	X	X	X
AUXINTIME	X	X	X	X	X	X	X
AUXOUTADJCALLS				X	X	X	X

Table A-7: Switch Cross Reference for Split/Skill Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
AUXOUTCALLS	X	X	X	X	X	X	X
AUXOUTOFFCALLS				X	X	X	X
AUXOUTOFFTIME				X	X	X	X
AUXOUTTIME	X	X	X	X	X	X	X
AVAILABLE	X	X	X	X	X	X	X
BACKUPCALLS		X	X	X	X	X	X
BUSYCALLS	X	X	X	X	X	X	X
BUSYTIME	X	X	X	X	X	X	X
CALLSOFFERED	X	X	X	X	X	X	X
CONFERENCE				X	X	X	X
DA_ACWINCALLS					X	X	X
DA_ACWINTIME					X	X	X
DA_ACWOCALLS					X	X	X
DA_ACWOTIME					X	X	X
DA_INACW					X	X	X
DA_INQUEUE					X	X	X
DA_INRING					X	X	X
DA_OLDEST					X	X	X
DA_OLDESTCALL					X	X	X
DA_ONACD					X	X	X
DEQUECALLS				X (EAS)	X	X	X
DEQUETIME				X (EAS)	X	X	X
DISCCALLS		X	X	X	X	X	X
DISCTIME		X	X	X	X	X	X
EVENT1-9		X	X	X	X	X	X
EWTHIGH							X
EWTLOW							X
EWTMEDIUM							X
EWTTOP							X

Table A-7: Switch Cross Reference for Split/Skill Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
HIGHCALLS		X	X	X	X	X	X
HOLDABNCALLS		X	X	X	X	X	X
HOLDCALLS		X	X	X	X	X	X
HOLDTIME		X	X	X	X	X	X
I_ACDAUXINTIME				X	X	X	X
I_ACDAUX_OUTTIME				X	X	X	X
I_ACDOThERTIME				X	X	X	X
I_ACDTIME	X	X	X	X	X	X	X
I_ACWINTIME	X	X	X	X	X	X	X
I_ACWOUTTIME	X	X	X	X	X	X	X
I_ACWTIME	X	X	X	X	X	X	X
I_AUXINTIME	X	X	X	X	X	X	X
I_AUXOUTTIME	X	X	X	X	X	X	X
I_AUXTIME	X	X	X	X	X	X	X
I_AVAILTIME	X	X	X	X	X	X	X
I_OTHERTIME	X	X	X	X	X	X	X
I_RINGTIME			X	X	X	X	X
I_STAFFTIME	X	X	X	X	X	X	X
INACW	X	X	X	X	X	X	X
IN_AUX	X	X	X	X	X	X	X
INCOMPLETE	X	X	X	X	X	X	X
INFLOWCALLS	X	X	X	X	X	X	X
INQUEUE	X	X	X	X	X	X	X
INRING			X	X	X	X	X
INTERFLOWCALLS	X	X	X	X	X	X	X
INTRVL	X	X	X	X	X	X	X
LOWCALLS	X	X	X	X	X	X	X
MAXINQUEUE	X	X	X	X	X	X	X
MAXOCWTIME	X	X	X	X	X	X	X

Table A-7: Switch Cross Reference for Split/Skill Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
MAXSTAFFED	X	X	X	X	X	X	X
MEDCALLS	X	X	X	X	X	X	X
NOANSREDIR							
O_ABNCALLS				X	X	X	X
O_ACDCALLS				X	X	X	X
O_ACDTIME				X	X	X	X
O_ACWTIME				X	X	X	X
O_OTHERCALLS				X	X	X	X
OLDESTCALL	X	X	X	X	X	X	X
ONACD	X	X	X	X	X	X	X
ONACDAUXOUT				X	X	X	X
ONACDOUT				X	X	X	X
ONACWIN	X	X	X	X	X	X	X
ONACWOUT	X	X	X	X	X	X	X
ONAUXIN	X	X	X	X	X	X	X
ONAUXOUT	X	X	X	X	X	X	X
ONHOLD		X	X	X	X	X	X
OTHER	X	X	X	X	X	X	X
OTHERCALLS	X	X	X	X	X	X	X
OTHERTIME	X	X	X	X	X	X	X
OUTFLOWCALLS	X	X	X	X	X	X	X
OUTFLOWTIME	X	X	X	X	X	X	X
PERIOD 1-9	X	X	X	X	X	X	X
PERIODCHG	X	X	X	X	X	X	X
PHANTOMABNS					X	X	X
POSITIONS	X	X	X	X	X	X	X
RINGCALLS			X	X	X	X	X
RINGTIME			X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X

Table A-7: Switch Cross Reference for Split/Skill Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
SERVICELEVEL	X	X	X	X	X	X	X
SPLIT	X	X	X	X	X	X	X
STAFFED	X	X	X	X	X	X	X
STARTTIME	X	X	X	X	X	X	X
SVCLEVELCHG	X	X	X	X	X	X	X
TOPCALLS		X	X	X	X	X	X
TRANSFERRED	X	X	X	X	X	X	X

Agent Database Items

The Agent database item descriptions (Table A-8) apply to real-time and historical items.

The **Type** column refers to **Cumulative (C)**, **Administrative (A)**, or **Status (S)** data. Cumulative and Administrative items typically apply to both the current and previous interval real-time table. Status items only apply to the current interval real-time tables.

Real-Time agent database items apply to the Current Interval Agent (cagent) and Previous Interval Agent (pagent) tables. The real-time indexes are **ACD**, **LOGID**, **POSITION**, and **SPLIT**.

Historical agent database items apply to the Intrahour Agent (hagent), Daily Agent (dagent), Weekly Agent (wagent), and Monthly Agent (magent) tables, except as noted. The historical indexes are **LOGID**, **SPLIT** and **ROW_DATE**.

Table A-8: Agent Database Items

Database Item	Description	Type
ABNCALLS	Number of split/skill ACD calls that were abandoned while ringing the agent's voice terminal (after being directed to the agent voice terminal, but before being answered). For Generic 3 switches, PHANTOMABNS are pegged as ABNCALLS . Available on Generic 2 and Generic 3 switches.	C
ABNTIME	Time split/skill ACD callers waited while ringing the agent before being abandoned. For Generic 3 switches, ABNTIME includes the time until the agent releases the call for phantom abandoned calls. Available on Generic 2 and Generic 3 switches.	C
ACD (index)	ACD number for which data was collected.	A
ACDAUXOUTCALLS	Number of AUXOUTCALLS the agent made with at least one split/skill or direct agent ACD call on hold. This includes calls made to transfer or conference the ACD call. Available on Generic 2.2 and Generic 3 switches.	C
ACDCALLS	Number of calls that were queued to SPLIT and answered by this agent in this SPLIT . ACDCALLS includes O_ACDCALLS .	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
ACDONHOLD (real-time)	Number of direct agent and split/skill ACD calls on hold for the agent. Available on System 85, Generic 2, and Generic 3 switches.	S
ACDTIME	Talk time of all ACDCALLS . ACDTIME includes O_ACDTIME . It does not include HOLDTIME .	C
ACWINCALLS	Number of inbound extension calls received by the agent while in ACW. This includes ACW for split/skill ACD calls and ACW not associated with a call.	C
ACWINTIME	Talk time of all ACWINCALLS (does not include HOLDTIME).	C
ACWOUTADJCALLS	Number of ACWOUTCALLS an adjunct processor or host computer placed on behalf of the agent (keyboard dialed). If such calls are placed to off-switch destinations, then they are also counted as ACWOUTOFFCALLS . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
ACWOUTCALLS	Number of outbound extension calls made by the agent or on behalf of the agent while in ACW. This includes ACW for split/skill ACD calls and ACW not associated with a call. ACWOUTCALLS includes ACWOUTADJCALLS and ACWOUTOFFCALLS .	C
ACWOUTOFFCALLS	Number of ACWOUTCALLS that were made to a destination outside the switch. If these calls were placed by an adjunct on behalf of the agent (keyboard dialed), then they are also counted as ACWOUTADJCALLS . Available on Generic 2.2 and Generic 3 switches.	C
ACWOUTOFFTIME	Talk time of all ACWOUTOFFCALLS (does not include HOLDTIME). ACWOUTOFFTIME is included in ACWOUTTIME . Available on Generic 2.2 and Generic 3 switches.	C
ACWOUTTIME	Talk time of all ACWOUTCALLS (does not include HOLDTIME). This includes time on ACWOUTADJCALLS and on ACWOUTOFFCALLS . ACWOUTTIME includes ACWOUTOFFTIME .	C
ACWTIME	Duration of all ACW associated with ACDCALLS , including ACWINTIME , ACWOUTCALLS , and O_ACWTIME .	C
AGSTATE (real-time)	Agent's current WORKMODE and call DIRECTION , for example, AUXOUT.	S

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
AGTIME (real-time)	Current time since the last agent state change for any split/skill.	S
ANSRINGTIME	Time split/skill and direct agent ACD calls spent ringing at the agent's position before being answered. Available on Generic 2.2 and Generic 3 switches.	C
ASSIST (real-time)	Request for supervisor assistance is active for this agent for any split/skill.	S
ASSISTS	Number of times the agent requested assistance from the split/skill supervisor by pressing the ASSIST key or dialing the supervisor's extension. The agent must be handling an ACD call or in call-related ACW for this item to be recorded.	C
AUXINCALLS	Number of inbound extension calls the agent received while in AUX (auxiliary work), AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold.	C
AUXINTIME	Talk time of all AUXINCALLS (does not include HOLDTIME).	C
AUXOUTADJCALLS	Number of AUXOUTCALLS an adjunct processor or host computer placed on behalf of the agent (keyboard dialed). If such calls are placed to off-switch destinations, then they are also counted as AUXOUTOFFCALLS . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
AUXOUTCALLS	Number of outbound extension calls made by the agent or on behalf of the agent while in AUX work, AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold. AUXOUTCALLS includes ACDAUXOUTCALLS , AUXOUTADJCALLS , and AUXOUTOFFCALLS .	C
AUXOUTOFFCALLS	Number of AUXOUTCALLS the agent made to a destination outside the switch. If these calls were placed by an adjunct on behalf of the agent (keyboard dialed), they are also counted as AUXOUTADJCALLS . Available on Generic 2.2 and Generic 3 switches.	
AUXOUTOFFTIME	Talk time of all AUXOUTOFFCALLS (does not include HOLDTIME). This time is included in AUXOUTTIME . Available on Generic 2.2 and Generic 3 switches.	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
AUXOUTTIME	Talk time of all AUXOUTCALLS (does not include HOLDTIME). This includes time on AUXOUTOFFCALLS and AUXOUTADJCALLS . AUXOUTTIME includes AUXOUTOFFTIME .	C
CHANGED (real-time)	Time of day that new agent activity started (for example, when WORKMODE or DIRECTION changed). Valid values are NULL and time-of-day.	S
CONFERENCE	Number of times the agent completed a conference (pushed the conference key a second time). Available on Generic 3 and Generic 2.2 switches.	C
DA_ABNCALLS	Number of direct agent ACD calls that were abandoned by callers while in queue or ringing the agent's voice terminal. On Generic 3 Version 4 switches, DA_ABNCALLS includes calls considered abandoned because their talk time was less than the phantom abandon call timer. Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_ABNTIME	Time DA_ABNCALLS were waiting in queue or ringing before being abandoned. On Generic 3 Version 4 switches, DA_ABNTIME includes time waiting and "talking" for phantom abandoned calls. Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_ACDCALLS	Number of direct agent ACD calls that the agent answered. Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_ACDTIME	Talk time of all DA_ACDCALLS (does not include HOLDTIME). Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_ACWINCALLS	Number of inbound extension calls received by the agent in ACW for direct agent ACD calls. Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_ACWINTIME	Talk time of all DA_ACWINCALLS (does not include HOLDTIME). Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_ACWOCALLS	Number of outbound extension calls made by the agent in ACW for direct agent ACD calls. DA_ACWOCALLS includes DA_ACWOADJCALLS and DA_ACWOFFCALLS . Available on Generic 3 switches with the ASAI or EAS feature.	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
DA_ACWOTIME	Talk time of all DA_ACWOCALLS . DA_ACWOTIME includes DA_ACWOFFTIME . It does not include HOLDTIME . Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_ACWOADJCALLS	Number of DA_ACWOCALLS that were placed by an ASAI adjunct on behalf of the agent (keyboard dialed). If these calls were placed to off-switch destinations, they are also counted as DA_ACWOFFCALLS . Available on Generic 3 switches with outbound ASAI.	C
DA_ACWOFFCALLS	Number of DA_ACWOCALLS that were made to an off-switch location. If these calls were placed by an adjunct on behalf of the agent (keyboard dialed), they are also counted as DA_ACWOADJCALLS .	C
DA_ACWOFFTIME	Talk time of all DA_ACWOFFCALLS (does not include HOLDTIME). This time is included in DA_ACWOTIME . Available on Generic 3 switches with the ASAI or the EAS feature.	C
DA_ACWTIME	Duration of ACW associated with DA_ACDCALLS , including time on DA_ACWINCALLS and DA_ACWOCALLS . DA_ACWTIME includes DA_ACWINTIME and DA_ACWOTIME . Available on Generic 3 switches with the ASAI or the EAS feature.	C
DA_ANSTIME	Time spent by callers in direct agent queue and ringing before being answered. Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_INQUEUE (real-time)	Current number of direct agent calls waiting in any split/skill queue for this agent. Available on Generic 3 switches with the ASAI or EAS feature.	S
DA_OLDESTCALL (real-time)	Length of time that the current oldest direct agent call has waited in any split/skill queue for this agent. Available on Generic 3 switches with the ASAI or EAS feature.	S
DA_OTHERCALLS	Number of direct agent calls that were redirected to another destination. Available on Generic 3 switches with the ASAI or EAS feature.	C
DA_OTHERTIME	Time spent in queue or ringing by DA_OTHERCALLS before being redirected. Available on Generic 3 switches with the ASAI or EAS feature.	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
DESTINATION (real-time)	Outbound call destination for the call the agent is active on for any split/skill (NULL, PBX, OFF, or as defined in Dictionary). If the agent is not handling an outbound call, the value is blank.	S
DIRECTION (real-time)	Direction of the call the agent is currently handling for any split/skill (NULL, IN or OUT, or as defined in Dictionary). If the agent is not on a call, the value is blank.	S
DURATION (real-time)	Duration of current WORKMODE and DIRECTION for this SPLIT (for example, length of time in current AGSTATE for this SPLIT).	S
EVENT1-9	Number of times each event (stroke count) key (1 to 9) was pressed while the agent was on an ACD call or in call-related ACW. Available on System 85, Generic 2, and Generic 3 switches.	C
EXTENSION	Extension number for which data was collected.	A
HOLDABNCALLS	Number of times callers abandoned from hold. For Generic 3 and Generic 2.2 switches, HOLDABNCALLS includes all calls. For System 85 and Generic 2.1 switches, HOLDABNCALLS includes split calls only.	C
HOLDCALLS	Number of calls that were placed on hold at least once. For Generic 3 and Generic 2.2 switches, HOLDCALLS includes all calls. For System 85 and Generic 2.1 switches, HOLDCALLS includes split calls only. HOLDCALLS includes HOLDABNCALLS .	C
HOLDTIME	Time spent by callers on hold. For Generic 3 and Generic 2.2 switches, HOLDTIME includes all calls. For System 85 and Generic 2.1 switches, HOLDTIME includes split calls only.	C
I_ACDAUXINTIME	Time during the collection interval that the agent spent talking on AUXIN calls with at least one split/skill or direct agent ACD call on hold. Available on Generic 2.2 and Generic 3 switches.	C
I_ACDAUX_OUTTIME	Time during the collection interval that the agent spent dialing (Generic 2.2) and talking on AUXOUT calls with at least one split/skill or direct agent ACD call on hold. Available on Generic 2.2 and Generic 3 switches.	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
I_ACDOTHERTIME	Time during the collection interval that the agent spent in the OTHER state (dialing an outgoing call, with a ringing personal call [Generic 3 switches], or with calls on hold and with no other state selected) with at least one split/skill or direct agent ACD call on hold. Available on Generic 2.2 and Generic 3 switches.	C
I_ACDTIME	Time during the collection interval that the agent was talking on ACD calls for SPLIT . This includes time spent on O_ACDCALLS . For System 85 and Generic 2.1 switches, this also includes the time ACD calls spent on hold.	C
I_ACWINTIME	Time during the collection interval that the agent was in ACW and on inbound extension calls. This includes ACW for split/skill ACD calls and ACW not associated with a call. I_ACWINTIME does not include HOLDTIME .	C
I_ACWOUTTIME	Time during the collection interval that the agent was in ACW and on outbound extension calls. This includes ACW for split/skill ACD calls and ACW not associated with a call. I_ACWOUTTIME does not include HOLDTIME .	C
I_ACWTIME	Time during the collection interval that the agent was in ACW. This includes ACW for split/skill ACD calls and ACW not associated with a call. I_ACWTIME includes I_ACWINTIME and I_ACWOUTTIME .	C
I_AUXINTIME	Time during the collection interval that the agent was in AUX work, AVAILABLE , or for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold and on inbound extension calls and SPLIT was the OLDEST_LOGON . I_AUXINTIME includes I_ACDAUXINTIME . It does not include HOLDTIME .	C
I_AUXOUTTIME	Time during the collection interval that the agent was in AUX work, AVAILABLE , or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold and on outbound extension calls and SPLIT was the OLDEST_LOGON . I_AUXOUTTIME includes I_ACDAUX_OUTTIME . It does not include HOLDTIME .	C
I_AVAILTIME	Time during the collection interval that the agent was available for ACD calls in this split/skill.	C
I_DA_ACDTIME	Time during the collection interval that the agent spent talking on direct agent calls (does not include HOLDTIME). Available on Generic 3 switches with the ASAI or EAS feature.	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
I_DA_ACWTIME	Time during the collection interval that the agent was doing after call work associated with direct agent ACD calls. Available on Generic 3 switches with ASAI or EAS.	C
I_OTHERTIME	Time during the collection interval that POSITIONS were doing other work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent had a direct agent call ringing, was on a direct agent call or in ACW for a direct agent call; the agent dialed to place a call or activate a feature; or a personal call rang at the agent with no other activity. For Generic 1 and Generic 3 switches without EAS, agents were logged into multiple splits and doing work for a split other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic switches with EAS, agents were logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW or on a personal call attributed to a skill other than this one). For all switches, I_OTHERTIME is collected for the time period after the link to the switch comes up or after the agent logs in and before the <i>CentreVu</i> CMS receives notification of the agent's state from the switch. I_OTHERTIME includes I_ACDOTHERTIME .	C
I_RINGTIME	Time during the collection interval that the agent had split/skill and direct agent ACD calls ringing. If the agent changes work modes or makes/receives another call instead of answering the ringing call, I_RINGTIME stops accumulating. RINGTIME is the time the caller spends ringing and is independent of agent activity. Available on Generic 2 and Generic 3 switches.	C
I_STAFFTIME	Time during the collection interval that the agent was staffed (logged in) in this split/skill. I_STAFFTIME includes I_ACDTIME , I_ACWTIME , I_DA_ACDTIME , I_DA_ACWTIME , I_OTHERTIME , I_RINGTIME , TI_AUXTIME , ONHOLD , and TI_STAFFTIME .	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
INCOMPLETE	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
INTRVL	Number of minutes in the intrahour interval (15, 30, 60). INTRVL applies to intrahour intervals only.	A
LOGID (index)	Login ID that was used to staff the EXTENSION . Agents in multiple splits/skills have one LOGID .	S
LOGONSKILL (real-time)	First skill the agent logged in with. This is also stored in SPLIT . Requires a Generic 2.2 or Generic 3 switch with EAS.	S
LOGONSKILL2-5 (real-time)	Second through fifth skills the agent logged in with. LOGONSKILL5 is only used with Generic 2.2 switches. Requires a Generic 2.2 or Generic 3 switch with EAS.	S
LOGONSTART (real-time)	Time of day that the agent logon session started for this SPLIT . If the agent has not logged in during the collection interval, the value will be blank. Valid values are NULL and time-of-day.	S
MALICIOUS (real-time)	Indicates whether a malicious call trace is active for the agent for any split/skill. Available on Generic 2 and Generic 3 switches (except for Generic 3i Version 1 switches).	S

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
MOVEPENDING (real-time)	Keeps track of a pending move for an agent. This database item can be populated by either the CNRCODE or the NAGLOGON message. When a CNRCODE message is sent to <i>CentreVu</i> CMS in response to a MVAGSTFD message, if the RCODE for an agent is 45, indicating pending, the corresponding MOVEPENDING database item will be set to 1. Upon receiving the NAGLOGON message for this agent, <i>CentreVu</i> CMS will reset the MOVEPENDING bit to the value of the “p” bit in the NAGLOGON message. Once set, the MOVEPENDING database item is cleared for an agent when the conditions that caused the move to pend are resolved and <i>CentreVu</i> CMS attempts to make the requested change. The database item is cleared whether or not <i>CentreVu</i> CMS successfully completes the requested change. Available on Generic 3 Version 4 and later switches.	S
NOANSREDIR	Number of split/skill and direct agent ACD calls that rang at this agent and then were automatically requeued by the Redirection on No Answer feature because they were not answered. Split/skill ACD calls are requeued to the split/skill, direct agent ACD calls are redirected to the agent's coverage path. Available on Generic 3 Version 2 and later switches.	C
O_ACDCALLS	Number of outbound ACDCALLS that an adjunct processor or host computer placed. O_ACDCALLS includes DA_ACDCALLS. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_ACDTIME	Talk time of all O_ACDCALLS (does not include HOLDTIME). This time is included in ACDTIME. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_ACWTIME	Duration of all ACW associated with the O_ACDCALLS. This time is included in ACWTIME. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
OLDEST_LOGON (real-time)	Current record of the split/skill the agent has been logged into the longest. For Generic 2.2 switches with EAS, this is always the default (zero) skill.	S

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
ONHOLD (real-time)	Current number of calls for any split/skill on hold at the agent's station. For Generic 2.2 and Generic 3 switches, ONHOLD includes all calls. For System 85 and Generic 2.1 switches, ONHOLD includes split calls only. ONHOLD includes ACDONHOLD .	S
ORIGIN (real-time)	Outbound call origination for the call the agent is currently talking on for any split/skill. Valid values for ORIGIN are NULL, PHONE, and KEYBOARD (adjunct-dialed).	S
PENDINGSPLIT (real-time)	Split/skill to which the agent will be moved. The move is pending until the agent is idle. In the case of a change of up to four skills in one request, PENDINGSPLIT is set to the first new skill for the agent. It is possible for PENDINGSPLIT to be blank or 0, even when MOVEPENDING is set. This can happen when the link to the switch comes up and a move is pending for an agent. Available on Generic 3 Version 4 switches.	S
PHANTOMABNS	Number of ACD calls with talk time less than the value of the phantom abandoned call timer. Available on Generic 3 switches.	C
POSITION (index)	Position number associated with this EXTENSION . Agents in multiple splits without EAS have multiple POSITIONs . Agents in multiple skills with EAS have a single POSITION .	A
RINGCALLS	Number of split/skill (Generic 2 and Generic 3 switches) and direct agent ACD calls (Generic 3 switches) that rang at the agent's position. Available on Generic 2 and Generic 3 switches.	C
RINGTIME	Time split/skill and direct agent ACD calls spent ringing at the agent's position (independent of disposition or other agent activity). I_RINGTIME is the time the agent spends in the ringing state and is affected by other agent activity. RINGTIME is the time the caller spends ringing and is independent of agent activity. Available on Generic 2 and Generic 3 switches.	C
ROW_DATE (index)	Date on which data was collected.	C
SKILLTYPE (real-time)	Type (primary or secondary) of the first skill. Available on Generic 3 switches with EAS.	S

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
SKILLTYPE2-4 (real-time)	Type (primary or secondary) of the second, third, and fourth skills. Available on Generic 3 switches with EAS.	S
SPLIT (index)	Assigned split/skill number or skill number the agent is logged into for this EXTENSION .	A
STARTED (real-time)	Time of day that WORKMODE began. Values: NULL, time-of day	S
STARTTIME	Time of day that the INTRVL for data collection began.	C
TI_AUXTIME	Time during the collection interval that the agent was in AUX for all splits/skills or on AUXIN or AUXOUT calls and SPLIT was the OLDEST_LOGON . TI_AUXTIME time is only stored for the split/skill the agent has been logged into the longest. TI_AUXTIME needs to be summed across the splits/skills the agents may log into, in case the logon order changes. TI_AUXTIME includes I_AUXINTIME and I_AUXOUTTIME .	C
TI_AVAILTIME	Time during the collection interval that the agent was in the available state for split/skill or direct agent ACD calls in any split/skill. TI_AVAILTIME is collected for the split/skill that was the OLDEST_LOGON . For non-EAS operation, if an agent logged into multiple splits and is in AUX mode in one split and is available for ACD calls in another split, the agent will accrue I_AVAILTIME for the split in which the agent is available and TI_AVAILTIME in the split logged into the longest. TI_AUXTIME time is only stored for the split/skill the agent has been logged into the longest. TI_AUXTIME time needs to be summed across the splits/skills the agents may log into, in case the logon order changes.	C
TI_OTHERTIME	Time during the collection interval that the agent was doing other work in all splits/skills. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, the agent put any call on hold and performed no further action, the agent dialed to place a call or to activate a feature, or a personal call rang with no further activity. For all switches, TI_OTHERTIME is collected for the time period after the link to the switch comes up or after the agent logs in and before the <i>CentreVu</i> CMS receives notification of the agent's state from the switch. TI_AUXTIME time is only stored for the split/skill the agent has been logged into the longest. TI_AUXTIME time needs to be summed across the splits/skills the agent may be logged into, in case the logon order changes. TI_OTHERTIME includes I_ACDOTHERTIME .	C

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
TI_STAFFTIME	Time during the collection interval that the agent was staffed in any split/skill and SPLIT was OLDEST_LOGON. TI_AUXTIME time is only stored for the split/skill the agent has been logged into the longest. TI_AUXTIME time needs to be summed across the splits/skills the agent may be logged into, in case the logon order changes. TI_STAFFTIME = sum(I_ACDTIME + I_ACWTIME + I_DA_ACDTIME + I_DA_ACWTIME + I_RINGTIME + TI_AUXTIME + TI_AVAILTIME + TI_OTHERTIME) over all the splits/skills the agent was logged into.	C
TRANSFERRED	Number of times the agent completed a transfer, that is, pressed the transfer key the second time. For Generic 1 switches, TRANSFERRED includes measured call-to-measured split or measured trunk-to-measured trunk transfers. For System 85 and Generic 2.1 switches, TRANSFERRED includes to a VDN or split. For Generic 3 and Generic 2.2 switches, TRANSFERRED includes all calls.	C
TYPE (real-time)	In an EAS environment, TYPE is used to list the skill type ("p" for primary or "s" for secondary) of agent skills when the Find One and List All actions are specified for the ACD Administration: Multi-Agent Skill Change window. Applies to Generic 3 Version 4 switches with EAS.	S
VDN (real-time)	Vector directory number associated with the agent's current split/skill or direct agent ACD call. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	S
WORKMODE (real-time)	Current work mode of the agent. Agent work modes include: AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, and UNSTAFF. If the agent has not been logged in during the collection interval, the value will be blank.	S
WORKSKILL (real-time)	Current work state of the agent. The WORKSKILL can be ACW (agent is on a skill or direct agent call, or in ACW) or OLDEST_LOGON (agent is on an AUXIN/AUXOUT call). When the agent is in AUX or OTHER, the WORKSKILL is null. Requires a Generic 2.2 or Generic 3 Version 2 or later switch with EAS.	S

Table A-8: Agent Database Items (Contd)

Database Item	Description	Type
WORKSPLIT (real-time)	Current work state of the agent. When the agent is handling a split/skill or direct agent call or in ACW, this is the split/skill associated with the call or the ACW. When the agent is on an AUXIN or AUXOUT call, this is OLDEST_LOGON. When the agent is available, this is the last split/skill in which the agent was available. Available on Generic 1 and Generic 3 switches. For switch releases with the EAS feature active, it is recommended you use WORKSKILL instead of WORKSPLIT in reports.	S
WORKSPLIT2-3 (real-time)	For agents available in multiple splits/skills, other splits/skills in which the agent is available. Available on Generic 2.2 with EAS, Generic 1 and Generic 3 switches.	S
WORKSPLIT4 (real-time)	For agents available in multiple splits/skills, another splits/skills in which the agent is available. Available on Generic 2.2 with EAS and Generic 3 Version 2 switches.	S
WORKSPLIT5 (real-time)	For agents available in multiple splits/skills, another splits/skills in which the agent is available. Available on Generic 2.2 with EAS switches.	S

Switch Cross Reference

Table A-9 lists the Agent database items and the switch(es) each item applies to.

Table A-9: Switch Cross Reference for Agent Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ABNCALLS			X	X	X	X	X
ABNTIME			X	X	X	X	X
ACD	X	X	X	X	X	X	X
ACDAUXOUTCALLS				X	X	X	X
ACDCALLS	X	X	X	X	X	X	X
ACDONHOLD		X	X	X	X	X	X
ACDTIME	X	X	X	X	X	X	X
ACWINCALLS	X	X	X	X	X	X	X
ACWINTIME	X	X	X	X	X	X	X
ACWOUTADJCALLS				X	X	X	X
ACWOUTCALLS	X	X	X	X	X	X	X
ACWOUTOFFCALLS				X	X	X	X
ACWOUTOFFTIME				X	X	X	X
ACWOUTTIME	X	X	X	X	X	X	X
ACWTIME	X	X	X	X	X	X	X
AGSTATE	X	X	X	X	X	X	X
AGTIME	X	X	X	X	X	X	X
ANSRINGTIME			X	X	X	X	X
ASSIST	X	X	X	X	X	X	X
ASSISTS	X	X	X	X	X	X	X
AUXINCALLS	X	X	X	X	X	X	X
AUXINTIME	X	X	X	X	X	X	X
AUXOUTADJCALLS				X	X	X	X
AUXOUTCALLS	X	X	X	X	X	X	X
AUXOUTOFFCALLS				X	X	X	X

Table A-9: Switch Cross Reference for Agent Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
AUXOUTOFFTIME				X	X	X	X
AUXOUTTIME	X	X	X	X	X	X	X
CHANGED	X	X	X	X	X	X	X
CONFERENCE				X	X	X	X
DA_ABNCALLS					X	X	X
DA_ABNTIME					X	X	X
DA_ACDCALLS					X	X	X
DA_ACDTIME					X	X	X
DA_ACWINCALLS					X	X	X
DA_ACWINTIME					X	X	X
DA_ACWOADJCALLS					X	X	X
DA_ACWOCALLS					X	X	X
DA_ACWOFFFCALLS					X	X	X
DA_ACWOFFFTIME					X	X	X
DA_ACWOTIME					X	X	X
DA_ACWTIME					X	X	X
DA_ANSTIME					X	X	X
DA_INQUEUE					X	X	X
DA_OLDESTCALL					X	X	X
DA_OTHERCALLS					X	X	X
DA_OTHERTIME					X	X	X
DESTINATION	X	X	X	X	X	X	X
DIRECTION	X	X	X	X	X	X	X
DURATION	X	X	X	X	X	X	X
EVENT1-9		X	X	X	X	X	X
EXTENSION	X	X	X	X	X	X	X
HOLDABNCALLS		X	X	X	X	X	X
HOLDCALLS		X	X	X	X	X	X
HOLDTIME		X	X	X	X	X	X

Table A-9: Switch Cross Reference for Agent Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
I_ACDAUXINTIME				X	X	X	X
I_ACDAUX_OUTTIME				X	X	X	X
I_ACDOThERTIME				X	X	X	X
I_ACDTIME	X	X	X	X	X	X	X
I_ACWINTIME	X	X	X	X	X	X	X
I_ACWOUTTIME	X	X	X	X	X	X	X
I_ACWTIME	X	X	X	X	X	X	X
I_AUXINTIME	X	X	X	X	X	X	X
I_AUXOUTTIME	X	X	X	X	X	X	X
I_AVAILTIME	X	X	X	X	X	X	X
I_DA_ACDTIME				X	X	X	X
I_DA_ACWTIME				X	X	X	X
I_OTHERTIME	X	X	X	X	X	X	X
I_RINGTIME			X	X	X	X	X
I_STAFFTIME	X	X	X	X	X	X	X
INCOMPLETE	X	X	X	X	X	X	X
INTRVL	X	X	X	X	X	X	X
LOGID	X	X	X	X	X	X	X
LOGONSKILL				X (EAS)		X (EAS)	X (EAS)
LOGONSKILL2-5				X (EAS)		X (EAS)	X (EAS)
LOGONSTART	X	X	X	X	X	X	X
MALICIOUS			X	X	X (not G3i)	X	X
MOVEPENDING							X
NOANSREDIR						X	X
O_ACDCALLS				X	X	X	X
O_ACDTIME				X	X	X	X
O_ACWTIME				X	X	X	X
OLDEST_LOGON	X	X	X	X	X	X	X

Table A-9: Switch Cross Reference for Agent Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ONHOLD		X	X	X	X	X	X
ORIGIN	X	X	X	X	X	X	X
PENDINGSPLIT							X
PHANTOMABNS					X	X	X
POSITION	X	X	X	X	X	X	X
RINGCALLS			X	X	X	X	X
RINGTIME			X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X
SKILLTYPE						X (EAS)	X (EAS)
SKILLTYPE2-4						X (EAS)	X (EAS)
SPLIT	X	X	X	X	X	X	X
STARTED	X	X	X	X	X	X	X
STARTTIME	X	X	X	X	X	X	X
TI_AUXTIME	X	X	X	X	X	X	X
TI_AVAILTIME	X	X	X	X	X	X	X
TI_OTHERTIME	X	X	X	X	X	X	X
TI_STAFFTIME	X	X	X	X	X	X	X
TRANSFERRED	X	X	X	X	X	X	X
VDN		X	X	X	X	X	X
WORKMODE	X	X	X	X	X	X	X
WORKSKILL				X (EAS)	X (EAS)	X (EAS)	X (EAS)
WORKSPLIT	X	X	X	X	X	X	X
WORKSPLIT2-3	X			X (EAS)	X	X	X
WORKSPLIT4				X (EAS)		X	X
WORKSPLIT5				X (EAS)			

Trunk Group Database Items

The Trunk Group database item descriptions (Table A-10) apply to real-time and historical items.

The **Type** column refers to **Cumulative (C)**, **Administrative (A)**, or **Status (S)** data. Cumulative and Administrative items typically apply to both the current and previous interval real-time table. Status items only apply to the current interval real-time tables.

Real-Time trunk group database items apply to the Current Interval Trunk Group (ctkgrp) and Previous Interval Trunk (ptkgrp) tables. The real-time indexes are **ACD** and **TKGRP**.

Historical trunk group database items apply to the Intrahour Trunk Group (htkgrp), Daily Trunk Group (dtkgrp), Weekly Trunk Group (wtkgrp), and Monthly Trunk Group (mtkgrp) tables, except as noted. The historical indexes are **ROW_DATE** and **TKGRP**.

Table A-10: Trunk Group Database Items

Database Item	Description	Type
ABNCALLS	Number of calls carried by this trunk that were abandoned by the caller before being answered by an agent. For Generic 2.2 and Generic 3 switches, this is all calls abandoned by the caller that were carried by this trunk, except for calls directly to unmeasured stations that did not go through a VDN or split/skill. For Generic 2.1 and System 85 switches, this is ACD calls that abandon from the split queue or from ringing, calls that abandon from vector processing and calls that abandon after being routed to an extension (via the "route to" vector command). For Generic 3, Generic 2.1, and System 85 switches, calls that abandon while listening to a forced disconnect announcement are also included. For Generic 1 switches, this is ACD calls that abandon from queue or ringing. PHANTOMABNS are pegged as ABNCALLS. ABNCALLS includes ABNVECCALLS.	C
ABNQUECALLS	Number of ABNCALLS that were abandoned while in a split/skill or direct agent queue.	C

Table A-10: Trunk Group Database Items (Contd)

Database Item	Description	Type
ABNRINGCALLS	Number of ABNCALLS that were abandoned by the caller while ringing at an agent position. Available on Generic 2 and Generic 3 switches.	C
ABNVECCALLS	Number of ABNCALLS that abandoned while in vector processing. This includes vector calls that abandoned while in queue or while ringing at an agent position. ABNVECCALLS includes ABNQUEECALLS and ABNRINGCALLS . Available on System 85, Generic 2, and Generic 3 switches with vectoring.	C
ACD (index)	ACD number for which data was collected	A
ACDCALLS	Number of INCALLS that were answered by an agent as a split/skill or direct agent ACD call. ACDCALLS includes BACKUPCALLS and O_ACD .	C
ADJUNCTOUT (real-time)	Current number of OUTBOUND calls an adjunct processor originated. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
ALLINUSE (real-time)	Current use status of all trunks in the trunk group (on calls or maintenance busy). Values: YES, NO	S
ALLINUSETIME	Length of time during the interval that all trunks in the trunk group were in use (on calls or maintenance busy).	C
AUDIO	Number of calls for which audio difficulty problems were reported for trunks in this trunk group. Available on System 85, Generic 2, and Generic 3 switches.	C
BACKUPCALLS	Number of ACDCALLS that were queued to the answering split/skill by a vector command other than a "queue to main" command. This includes calls delivered by "messaging split/skill", "check backup", "route to" split/skill, and "redirect on no answer" vector commands. MAINCALLS is calculated as ACDCALLS - BACKUPCALLS . BACKUPCALLS includes messaging split/skill calls, check backup calls, and route to split/skill calls. It also includes direct agent calls, if the feature is in use. MAINCALLS does not include direct agent calls. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	C
BH_ABNCALLS	Number of incoming calls carried by the trunk group that abandoned during the busy hour.	C

Table A-10: Trunk Group Database Items (Contd)

Database Item	Description	Type
BH_ACDCALLS	Number of incoming calls carried by the trunk group during the busy hour that were answered by an agent as split/skill or direct agent ACD calls.	C
BH_ALLINUSETIME	Length of time during the busy hour that all trunks in the trunk group were in use.	C
BH_BUSYCALLS	Number of incoming calls carried by the trunk group during the busy hour that were given a busy signal by the switch.	C
BH_DISCCALLS	Number of incoming calls carried by the trunk group during the busy hour that were forced to disconnect by the switch.	C
BH_INCALLS	Number of incoming calls carried by the trunk group during the busy hour.	C
BH_INTIME	Trunk holding time during the busy hour of all incoming calls carried by the trunk group.	C
BH_OABNCALLS	Number of outgoing calls carried by the trunk group that abandoned during the busy hour.	C
BH_OACDCALLS	Number of outgoing calls carried by the trunk group during the busy hour answered by an agent as split/skill or direct agent ACD calls	C
BH_OOTHERCALLS	Number of outgoing calls carried by the trunk group during the busy hour that were not answered or abandoned.	C
BH_OTHERCALLS	Number of incoming calls carried by the trunk group during the busy hour that were not answered or abandoned.	C
BH_OUTCALLS	Number of outgoing calls carried by the trunk group during the busy hour.	C
BH_OUTTIME	Trunk holding time during the busy hour of all outgoing calls carried by the trunk group.	C
BH_STARTTIME	Starting time of the hour for which busy hour data was collected.	C
BLOCKAGE	Number of outbound call attempts that were blocked because all trunks were busy. Available on System 85 and Generic 2 switches.	C

Table A-10: Trunk Group Database Items (Contd)

Database Item	Description	Type
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch. This can occur on all switches via the "busy" vector command. On Generic 3 switches, BUSYCALLS can occur if a call is routed to a split with coverage set to "yes" where there are no agents available, the queue is full (or there is no queue), there is no coverage, and an announcement has played or the trunk is not a CO trunk. Also on Generic 3 switches, BUSYCALLS can occur if a call is routed to a direct agent with coverage set to "yes", the agent is not logged in and there is no coverage path administered, an announcement has played, or the trunk is not a CO trunk.	C
COMPLETED	Number of OUTCALLS that were completed (far end answered). Available on Generic 1 and Generic 3 switches.	C
CONNECTCALLS	Number of INCALLS that were answered at a station and were not split/skill or direct agent ACD calls.	C
DISCCALLS	With Generic 2.2, Generic 3 Version 2 (load 100 and later), and Generic 3 Version 3 switches, the number of INCALLS that were disconnected by the switch via the "disconnect" vector command. With System 85, Generic 2.1, Generic 3 Version 1 and Generic 3 Version 2 (prior to load 100) switches, the number of INCALLS that were given a forced disconnect announcement by the "disconnect" vector command and listened to the entire announcement, then were disconnected by the switch. With Generic 3 Version 2 and later Generic 3 switches, the number also includes calls disconnected due to the expiration of the vector disconnect timer and those that were disconnected because they reached the end of vector processing without being queued.	C
FAILURES	Number of trunk failures for this TKGRP (System 85 and Generic 2 switches). No time or call is recorded in any of the <i>CentreVu</i> CMS tables. Trunk failures can be due to trunk sequencing failures (usually hardware problems on the trunk or incompatible trunk types on either end of a call) or due to internal switch errors (such as errors in call processing or vectoring translations). This item does not include calls with short holding times. When the Generic 1 and Generic 3 switches detect such a problem with trunks, they automatically place the trunks in the maintenance busy state. Available on System 85 and Generic 2 switches.	C

Table A-10: Trunk Group Database Items (Contd)

Database Item	Description	Type
I_INOCC	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
I_OUTOCC	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (i.e., until the far end drops, the agent releases the call, or the switch disconnects the call).	C
INBOUND (real-time)	Current number of NUMINUSE trunks that are busy on inbound calls.	S
INCALLS	Number of inbound calls that were carried by this TKGRP . INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS	C
INCOMPLETE	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
INTIME	Trunk holding time for all INCALLS carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
INTRVL	Number of minutes in the interval. INTRVL applies to intrahour intervals only.	A
MBUSY (real-time)	Current number of NUMINUSE trunks that are maintenance busy.	S
MBUSYTIME	Total time during the collection interval that trunks in the trunk group were maintenance busy.	C

Table A-10: Trunk Group Database Items (Contd)

Database Item	Description	Type
NUMINUSE (real-time)	Current number of TRUNKS that are busy (on calls or maintenance busy). NUMINUSE = INBOUND + OUTBOUND + MBUSY	S
O_ABNCALLS	Number of OUTCALLS that were offered to ACD splits/skills and were abandoned by the far end. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_ACDCALLS	Number of OUTCALLS that were offered to one or more splits/skills and were answered by an agent in one of those splits/skills. O_ACDCALLS includes DA_ACDCALLS . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_OTHERCALLS	Number of OUTCALLS on trunks in this trunk group that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. O_OTHERCALLS includes SHORTCALLS .	C
OTHERCALLS	Number of INCALLS carried by this trunk group that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. OTHERCALLS includes BUSYCALLS , DISCCALLS , and SHORTCALLS . OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS	S
OUTBOUND (real-time)	Current number of NUMINUSE trunks that are busy on outbound calls. OUTBOUND includes ADJUNCTOUT .	S
OUTCALLS	Number of outbound calls that were carried by this TKGRP . OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS	C
OUTTIME	Trunk holding time for all OUTCALLS carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
ROW_DATE (index)	Date on which data was collected.	C

Table A-10: Trunk Group Database Items (Contd)

Database Item	Description	Type
SETUPTIME	Amount of time until OUTCALLS completed. Available on Generic 1 and Generic 3 switches.	C
SHORTCALLS	Number of inbound and outbound calls that occupied a trunk in the trunk group for less than 2 seconds and that did not queue to a split/skill, forward to a split/skill, get answered by an agent, get a forced busy or forced disconnect from the switch, or produce a trunk failure or maintenance busy.	C
SPLIT	Split/skill this TKGRP terminates to.	A
STARTTIME (real-time)	Start time for the interval data was collected.	S
TKGRP (index)	Trunk group number for which data was collected.	A
TRANSFERRED	Number of calls that were transferred to another destination. For Generic 1 switches, TRANSFERRED includes measured call-to-measured split or measured trunk-to-measured trunk transfers. For System 85 and Generic 2.1 switches, TRANSFERRED includes to a VDN or split. For Generic 3 and Generic 2.2 switches, TRANSFERRED includes all calls.	C
TRUNKS	Current number of trunks assigned to this TKGRP .	A
VDN	VDN this TKGRP terminates to. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	A
VECTOR	Vector the VDN terminates to. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	A

Switch Cross Reference

Table A-11 lists the Trunk Group database items and the switch(es) each item applies to.

Table A-11: Switch Cross Reference for Trunk Group Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ABNCALLS	X	X	X	X	X	X	X
ABNQUECALLS	X	X	X	X	X	X	X
ABNRINGCALLS			X	X	X	X	X
ABNVECCALLS		X	X	X	X	X	X
ACD (index)	X	X	X	X	X	X	X
ACDCALLS	X	X	X	X	X	X	X
ADJUNCTOUT				X	X	X	X
ALLINUSE	X	X	X	X	X	X	X
ALLINUSETIME	X	X	X	X	X	X	X
AUDIO		X	X	X	X	X	X
BH_ABNCALLS	X	X	X	X	X	X	X
BH_ACDCALLS	X	X	X	X	X	X	X
BH_ALLINUSETIME	X	X	X	X	X	X	X
BH_BUSYCALLS	X	X	X	X	X	X	X
BH_DISCCALLS		X	X	X	X	X	X
BH_INCALLS		X	X	X	X	X	X
BH_INTIME		X	X	X	X	X	X
BH_OABNCALLS				X	X	X	X
BH_OACDCALLS				X	X	X	X
BH_OTHERCALLS	X	X	X	X	X	X	X
BH_OUTCALLS	X	X	X	X	X	X	X
BH_OUTTIME	X	X	X	X	X	X	X
BH_STARTTIME	X	X	X	X	X	X	X
BACKUPCALLS		X	X	X	X	X	X

Table A-11: Switch Cross Reference for Trunk Group Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
BLOCKAGE		X	X	X			
BUSYCALLS	X	X	X	X	X	X	X
COMPLETED	X				X	X	X
CONNECTCALLS	X	X	X	X	X	X	X
DISCCALLS		X	X	X	X	X	X
FAILURES		X	X	X			
I_INOCC	X	X	X	X	X	X	X
I_OUTOCC	X	X	X	X	X	X	X
INBOUND	X	X	X	X	X	X	X
INCALLS	X	X	X	X	X	X	X
INCOMPLETE	X	X	X	X	X	X	X
INTIME	X	X	X	X	X	X	X
INTRVL	X	X	X	X	X	X	X
MBUSY	X	X	X	X	X	X	X
MBUSYTIME	X	X	X	X	X	X	X
NUMINUSE	X	X	X	X	X	X	X
O_ABNCALLS				X	X	X	X
O_ACDCALLS				X	X	X	X
O_OTHERCALLS	X	X	X	X	X	X	X
OTHERCALLS	X	X	X	X	X	X	X
OUTBOUND	X	X	X	X	X	X	X
OUTCALLS	X	X	X	X	X	X	X
OUTTIME	X	X	X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X
SETUPTIME	X				X	X	X
SHORTCALLS	X	X	X	X	X	X	X
SPLIT	X	X	X	X	X	X	X
STARTTIME	X	X	X	X	X	X	X
TKGRP	X	X	X	X	X	X	X

Table A-11: Switch Cross Reference for Trunk Group Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
TRANSFERRED	X	X	X	X	X	X	X
TRUNKS	X	X	X	X	X	X	X
VDN		X	X	X	X	X	X
VECTOR		X	X	X	X	X	X

Trunk Database Items

The Trunk database item descriptions (Table A-12) apply to real-time and historical items.

The **Type** column refers to **Cumulative (C)**, **Administrative (A)**, or **Status (S)** data. Cumulative and Administrative items typically apply to both the current and previous interval real-time table. Status items only apply to the current interval real-time tables.

Real-Time trunk database items apply to the Current Interval Trunk (ct trunk) and Previous Interval Agent (pt trunk) tables. The real-time indexes are **ACD**, **ITN**, and **TKGRP**.

Historical trunk database items apply to the Intrahour Trunk (ht trunk), Daily Trunk (dt trunk), Weekly Trunk Group (wt trunk), and Monthly Trunk (mt trunk) tables, except as noted. The historical indexes are **EQLOC**, **ROW_DATE** and **TKGRP**.

Table A-12: Trunk Database Items

Database Item	Description	Type
ABNCALLS	Number of calls carried by this trunk that were abandoned by the caller before being answered by an agent. For Generic 2.2 and Generic 3 switches, this is all calls abandoned by the caller that were carried by this trunk, except for calls directly to unmeasured stations that did not go through a VDN or split/skill. For Generic 3 switches, this includes ACD calls and calls that routed to an agent or extension with talk times less than the phantom abandoned call timer value. For Generic 2.1 and System 85 switches, this is ACD calls that abandon from the split queue or from ringing, calls that abandon from vector processing and calls that abandon after being routed to an extension by the "route to" vector command. For Generic 3, Generic 2.1, and System 85 switches, calls that abandon while listening to a forced disconnect announcement are also included here. For Generic 1 switches, this is ACD calls that abandon from queue or ringing. PHANTOMABNS are pegged as ABNCALLS.	C
ACD (index)	ACD number for which data was collected.	A

Table A-12: Trunk Database Items (Contd)

Database Item	Description	Type
ACDCALLS	Number of INCALLS on the trunk answered by an agent as a split/skill or direct agent ACD call. ACDCALLS includes BACKUPCALLS and O_ACDCALLS .	C
AUDIO	Number of calls for which audio difficulty was reported for this trunk. Available on System 85, Generic 2, and Generic 3 switches.	C
DIRECTION (real-time)	Current call direction of trunk (IN, OUT, or as defined in Dictionary). The value is blank (NULL) if the trunk is not seized (trunk idle).	S
DURATION (real-time)	Current length of time the trunk has been in TKSTATE .	S
EQLOC (index)	Physical equipment location (trunk number) for which data was collected.	A
EXTENSION (real-time)	Extension to which this trunk is currently queued, ringing, or connected.	S
FAILURES	Number of trunk failures for this trunk (System 85 and Generic 2 switches). No time or call is recorded in any of the <i>CentreVu</i> CMS tables. Trunk failures can be due to trunk sequencing failures (usually hardware problems on the trunk or incompatible trunk types on either end of a call) or due to internal switch errors (such as errors in call processing or vectoring translations). This item does not include calls with short holding times. When the Generic 1 and Generic 3 switches detect such a problem with trunks, they automatically place the trunks in the maintenance busy state. Available on System 85 and Generic 2 switches.	C
I_INOCC	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
I_OUTOCC	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C

Table A-12: Trunk Database Items (Contd)

Database Item	Description	Type
INCALLS	Number of inbound calls carried by this trunk. This includes calls with short holding times (SHORTCALLS), but does not include calls that had a trunk failure (FAILURES). INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS	C
INCOMPLETE	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
INTIME	Trunk holding time for all INCALLS carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
INTRVL	Number of minutes in the interval (15, 30, or 60). INTRVL applies to intrahour intervals only.	A
ITN (index)	Internal trunk number of the trunk.	A
LOGID (real-time)	Current agent (Login ID) handling the call. This is blank (NULL) when the trunk is idle.	S
MBUSYTIME	Length of time during the collection interval that this trunk was maintenance busy.	C
O_ABNCALLS	Number of OUTCALLS on this trunk that were offered to ACD splits/skills and were abandoned by the far end. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
O_ACDCALLS	Number of OUTCALLS on this trunk that were offered to ACD splits/skills and were answered by an agent in one of those splits/skills. O_ACDCALLS includes DA_ACDCALLS . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table A-12: Trunk Database Items (Contd)

Database Item	Description	Type
O_OTHERCALLS	Number of OUTCALLS on this trunk that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. O_OTHERCALLS includes SHORTCALLS .	C
OTHERCALLS	Number of INCALLS carried by this trunk that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. OTHERCALLS includes SHORTCALLS . OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS	S
OUTCALLS	Number of outbound calls that were carried by the trunk. OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS	C
OUTTIME	Trunk holding time for all OUTCALLS carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
PRIORITY (real-time)	Priority at which call was queued. Without vectoring, the values are YES, NO, or as defined in Dictionary. With vectoring, the values are LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets a forced disconnect. Generic 3 switches with vectoring use MED for “no priority” and HIGH for “priority” calls that queue directly to a split without going through a vector, calls that queue to a split/skill via “route to” number of “messaging split/skill” vector commands, and calls that intraflow to a split.	S
PRIORITY2-3 (real-time)	Priority at which call was queued to a second or third split/skill, the values are: YES, NO, or as defined in Dictionary. With vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets forced disconnect (announcement). Available on Generic 2.2 with vectoring and EAS, and Generic 3 switches with vectoring.	S
QUECOUNT (real-time)	Number of ACD split/skill queues that the call is in. This is blank (NULL) when the trunk goes idle, gets forced busy, gets a forced disconnect, connects to a station or agent, or forwards out of the queue. Values: NULL, 1-3	S

Table A-12: Trunk Database Items (Contd)

Database Item	Description	Type
QUETYPE (real-time)	Whether this call entered the queue via the “queue to main” or another vector step. QUEUETYPE is NULL for direct agent calls; when vectoring is not used; and when the trunk idles, gets forced busy, or gets a forced disconnect. Valid values are NULL, MAIN, and BACKUP.	S
QUETYPE2-3 (real-time)	Whether this call entered the second or third queue via the “queue to main” or another vector step. QUEUETYPE2 and QUEUETYPE3 are NULL when vectoring is not used; or when the trunk idles, gets forced busy, or gets a forced disconnect. Available on Generic 2.2 switches with EAS and Generic 3 switches.	S
ROW_DATE (index)	Date on which data was collected.	C
SHORTCALLS	Number of inbound and outbound calls that occupied a trunk in the trunk for less than 2 seconds and that did not queue to a split/skill, forward to a split/skill, get answered by an agent, get a forced busy or forced disconnect from the switch, or produce a trunk failure or maintenance busy.	C
SPLIT (real-time)	Current split/skill number of the call. This can be the first split/skill number the call was queued to or the split/skill number in which the call was answered. This is blank (NULL) when the trunk idles.	S
SPLIT2-3 (real-time)	Current split/skill numbers of second and third splits/skills to which the call is queued. This is blank (NULL) when the trunk idles. Available on Generic 2.2 switches with the vectoring and EAS, and Generic 3 switches with vectoring.	S
STARTED (real-time)	Time of day that TKSTATE started. The values are NULL, time-of-day	S
STARTTIME (real-time)	Start time for the interval data was collected.	S
TKGRP (index)	Trunk group number to which the trunk is assigned.	A
TKSTATE (real-time)	Current state of the call. Trunk states include: IDLE, SEIZED, QUEUED, CONN, RING, DABN, FBUSY, FDISC, HOLD, MBUSY, UNKNOWN, or as defined in Dictionary.	S
VDN (real-time)	VDN that is associated with the current call. This stays set until the trunk idles, at which time it is set to NULL. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	S

Table A-12: Trunk Database Items (Contd)

Database Item	Description	Type
VECTOR (real-time)	Vector that is associated with the current call. This stays set until the trunk idles, at which time it is set to NULL. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	S

Switch Cross Reference

Table A-13 lists the Trunk database items and the switch(es) each item applies to.

Table A-13: Switch Cross Reference for Trunk Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ABNCALLS	X	X	X	X	X	X	X
ACD	X	X	X	X	X	X	X
ACDCALLS	X	X	X	X	X	X	X
AUDIO		X	X	X	X	X	X
DIRECTION	X	X	X	X	X	X	X
DURATION	X	X	X	X	X	X	X
EQLOC	X	X	X	X	X	X	X
EXTENSION	X	X	X	X	X	X	X
FAILURES		X	X	X			
I_INOCC	X	X	X	X	X	X	X
I_OUTOCC	X	X	X	X	X	X	X
INCALLS	X	X	X	X	X	X	X
INCOMPLETE	X	X	X	X	X	X	X
INTIME	X	X	X	X	X	X	X
INTRVL	X	X	X	X	X	X	X
ITN	X	X	X	X	X	X	X
LOGID	X	X	X	X	X	X	X
MBUSYTIME	X	X	X	X	X	X	X
O_ABNCALLS				X	X	X	X
O_ACDCALLS				X	X	X	X
O_OTHERCALLS	X	X	X	X	X	X	X
OTHERCALLS	X	X	X	X	X	X	X
OUTCALLS	X	X	X	X	X	X	X
OUTTIME	X	X	X	X	X	X	X
PRIORITY	X	X	X	X	X	X	X

Table A-13: Switch Cross Reference for Trunk Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
PRIORITY2-3				X (EAS)	X	X	X
QUECOUNT	X	X	X	X	X	X	X
QUETYPE		X	X	X	X	X	X
QUETYPE2-3				X (EAS)	X	X	X
ROW_DATE	X	X	X	X	X	X	X
SHORTCALLS	X	X	X	X	X	X	X
SPLIT	X	X	X	X	X	X	X
SPLIT2-3				X (EAS)	X	X	X
STARTED	X	X	X	X	X	X	X
STARTTIME	X	X	X	X	X	X	X
TKGRP	X	X	X	X	X	X	X
TKSTATE	X	X	X	X	X	X	X
VDN		X	X	X	X	X	X
VECTOR		X	X	X	X	X	X

Vector Database Items

Vector database items are available only if you have the vectoring feature.

The Vector database item descriptions (Table A-14) apply to real-time and historical items.

The **Type** column refers to **Cumulative (C)**, **Administrative (A)**, or **Status (S)** data. Cumulative and Administrative items typically apply to both the current and previous interval real-time table. Status items only apply to the current interval real-time tables.

Real-Time vector database items apply to the Current Interval Vector (cvector) and Previous Interval Vector (pvector) tables. The real-time indexes are **ACD** and **VECTOR**.

Historical vector database items apply to the Intrahour Vector (hvector), Daily Vector (dvector), Weekly Vector (wvector), and Monthly Vector (mvector) tables, except as noted. The historical indexes are **ROW_DATE** and **VECTOR**.

Table A-14: Vector Database Items

Database Item	Description	Type
ABNCALLS	Number of INCALLS that were abandoned while INPROGRESS for this vector. This includes split/skill and direct agent ACD calls that abandon from queue or from ringing, calls that abandon from vector processing, and for the System 85, Generic 2.1, and Generic 3 (prior to Generic 3 Version 2 load 100) switches, calls that abandoned while listening to a forced disconnect announcement. ABNCALLS includes ABNQUECALLS , ABNRINGCALLS , and PHANTOMABNS .	C
ABNQUECALLS	Number of ABNCALLS that were abandoned while in a split/skill or direct agent ACD queue. System 85 switch calls that abandon from ringing are included here.	C
ABNRINGCALLS	Number of split/skill or direct agent ABNCALLS that were abandoned by the caller while ringing at an agent position. Available on Generic 2 and Generic 3 switches.	C

Table A-14: Vector Database Items (Contd)

Database Item	Description	Type
ABNTIME	Time caller waited while vector steps were executed, the call was queued, and ringing. For Generic 3 Version 4 switches phantom abandoned calls, this is the total time until the agent released the call.	C
ACD (index)	ACD number for which data was collected.	A
ACDCALLS	Number of split/skill and direct agent ACD calls that were answered by an agent. Includes calls from “queue to main”, “check backup”, “messaging”, “route to” split/skill or direct agent, and “adjunct routing” to split/skill or direct agent. ACDCALLS includes BACKUPCALLS and O_ACDCALLS .	C
ADJATTEMPTS	Number of adjunct routing attempts for calls in this VECTOR . Available on Generic 3 switches with the ASAI feature.	C
ADJROUTED	Number of adjunct-routing calls that were redirected by an adjunct processor or host computer. Available on Generic 3 switches with the ASAI feature.	C
ANSTIME	Time split/skill and direct agent ACD calls waited while executing vector steps, queuing and ringing before being answered by an agent.	C
BACKUPCALLS	Number of ACDCALLS that were delivered to this split/skill by a vector command other than a “queue to main” command. This includes calls delivered by “messaging”, “check backup”, “route to” split/skill, and “redirect on no answer” vector commands. MAINCALLS is then calculated as ACDCALLS - BACKUPCALLS . BACKUPCALLS includes messaging split/skill calls, check backup calls, and route to split/skill calls. It also includes direct agent calls, if the feature is in use. MAINCALLS does not include direct agent calls. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	C

Table A-14: Vector Database Items (Contd)

Database Item	Description	Type
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch. This can occur on all switches via the "busy" vector command. On Generic 3 switches, BUSYCALLS can occur if a call is routed to a split with coverage set to "yes" where there are no agents available, the queue is full (or there is no queue), there is no coverage, and an announcement has played or the trunk is not a CO trunk. Also on Generic 3 switches, BUSYCALLS can occur if a call is routed to a direct agent with coverage set to "yes", the agent is not logged in and there is no coverage path administered, an announcement has played, or the trunk is not a CO trunk.	C
BUSYTIME	Time BUSYCALLS waited before hearing a busy signal.	C
DISCCALLS	With Generic 2.2, Generic 3 Version 2 (load 100 and later), and Generic 3 Version 3 switches, the number of INCALLS that were disconnected by the switch via the "disconnect" vector command. With System 85, Generic 2.1, Generic 3 Version 1 and Generic 3 Version 2 (prior to load 100) switches, the number of INCALLS that were given a forced disconnect announcement by the "disconnect" vector command and listened to the entire announcement, then were disconnected by the switch. With Generic 3 Version 2 and later Generic 3 switches, the number also includes calls disconnected due to the expiration of the vector disconnect timer and those that were disconnected because they reached the end of vector processing without being queued. DISCCALLS includes VDISCCALLS.	C
DISCTIME	Time all DISCCALLS spent in this VECTOR. The time until the trunk drops following the forced disconnect command for those calls recorded as DISCCALLS. For Generic 2.2, Generic 3 Version 2 and later switches, if the caller hangs up during the forced disconnect announcement, this time is the time until the caller hung up. For System 85, Generic 2.1, and Generic 3 (prior to Version 2) switches, DISCTIME is the time until the announcement ends and the caller is disconnected by the switch. Generic 3 Version 2 and later Generic 3 switches also include the time until the trunk drops for calls disconnected due to the expiration of the vector disconnect timer or because they reached the end of vector processing without being queued.	C

Table A-14: Vector Database Items (Contd)

Database Item	Description	Type
GOTOCALLS	Number of OUTFLOWCALLS that were redirected to another vector by way of a "go to vector" command. Available on Generic 2.2 and Generic 3 switches.	C
GOTOTIME	Time all GOTOCALLS spent in the vector before being redirected to another vector. Available on Generic 2.2 and Generic 3 switches.	C
INCALLS	Number of inbound calls that were processed by the vector, including INFLOWCALLS . INCALLS includes ABNCALLS , ACDCALLS , INFLOWCALLS , and OTHERCALLS . INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS	C
INCOMPLETE	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
INFLOWCALLS	Number of calls that were redirected to the vector by way of a "go to vector" or "route to" VDN command.	C
INPROGRESS (real-time)	Current number of inbound calls that are being processed by this vector until the disposition of the call is known (answered, abandoned, or outflowed from the vector). INPROGRESS includes INQUEUE and INRING .	S
INQUEUE (real-time)	Current number of INPROGRESS calls that are in split/skill or direct agent ACD queues. System 85 calls that are ringing at agent positions are included here.	S
INRING (real-time)	Current number of INPROGRESS split/skill and direct agent ACD calls that are ringing at an agent position. Available on Generic 2 and Generic 3 switches.	S
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to a destination outside the switch. INTERFLOWCALLS includes LOOKFLOWCALLS .	C

Table A-14: Vector Database Items (Contd)

Database Item	Description	Type
INTIME	Time spent by INCALLS in the VECTOR executing steps. INTIME stops accruing when the "stop" vector step is executed, when a blank step in the vector is reached, when busy or disconnect is sent, when the call abandons, when a "route to" command succeeds, when a "messaging split/skill or "adjust routing" command succeeds, or when the split/skill or direct agent ACD call rings an agent.	C
INTRVL	Number of minutes in the interval (15, 30, 60). INTRVL applies to intrahour intervals only.	A
LOOKATTEMPTS	Number of look-ahead interflow attempts for calls processed by the vector. Available on Generic 2.2 and Generic 3 switches with the look-ahead Interflow feature.	C
LOOKFLOWCALLS	Number of INTERFLOWCALLS that were redirected to another switch by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches with the look-ahead interflow feature.	C
NUMVDNS	Current number of VDNs that are assigned to this vector.	A
OTHERCALLS	Number of INCALLS that connected to a non-ACD destination, were redirected out of the vector, were given a busy signal, or were disconnected. OTHERCALLS includes BUSYCALLS , DISCCALLS , and OUTFLOWCALLS . OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS	S
OTHERTIME	Time OTHERCALLS spent in the vector until the disposition was known. OTHERTIME includes BUSYTIME , DISCTIME , and OUTFLOWTIME .	C
OUTFLOWCALLS	Number of INCALLS that were redirected to another destination by way of a "go to vector", "route to", or "adjunct routing" command to a destination other than a split/skill or direct agent. (Calls that route to a split/skill or direct agent by way of a "route to," "adjunct routing," or "messaging split/skill" command are still tracked in the vector.) OUTFLOWCALLS includes GOTOCALLS and INTERFLOWCALLS .	C

Table A-14: Vector Database Items (Contd)

Database Item	Description	Type
OUTFLOWTIME	Time all OUTFLOWCALLS spent in the vector before being redirected. OUTFLOWTIME includes GOTOTIME .	C
PHANTOMABNS	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer. Available on Generic 3 switches.	C
RINGCALLS	Number of split/skill and direct agent ACD calls that rang at agent positions. Available on Generic 2 and Generic 3 switches.	C
RINGTIME	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition. Available on Generic 2 and Generic 3 switches.	C
ROW_DATE (index)	Date on which data was collected.	C
STARTTIME (real-time)	Start time for the interval data was collected.	S
VDISCCALLS	Number of calls forced to disconnect because the vector disconnect timer timed out or because the call reached a vector “stop” command without being queued. Available on Generic 3 Version 2 and later switches.	C
VECTOR (index)	Vector number that this row represents.	A

Switch Cross Reference

Table A-15 lists the Vector database items and the switch(es) each item applies to.

Table A-15: Switch Cross Reference for Vector Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ABNCALLS		X	X	X	X	X	X
ABNQUECALLS		X	X	X	X	X	X
ABNRINGCALLS			X	X	X	X	X
ABNTIME		X	X	X	X	X	X
ACD		X	X	X	X	X	X
ACDCALLS		X	X	X	X	X	X
ADJATTEMPTS					X	X	X
ADJROUTED					X	X	X
ANSTIME		X	X	X	X	X	X
BACKUPCALLS		X	X	X	X	X	X
BUSYCALLS		X	X	X	X	X	X
BUSYTIME		X	X	X	X	X	X
DISCCALLS		X	X	X	X	X	X
DISCTIME		X	X	X	X	X	X
GOTOCALLS				X	X	X	X
GOTOTIME				X	X	X	X
INCALLS		X	X	X	X	X	X
INCOMPLETE		X	X	X	X	X	X
INFLOWCALLS		X	X	X	X	X	X
INPROGRESS		X	X	X	X	X	X
INQUEUE		X	X	X	X	X	X
INRING		X	X	X	X	X	X
INTERFLOWCALLS		X	X	X	X	X	X
INTIME		X	X	X	X	X	X
INTRVL		X	X	X	X	X	X

Table A-15: Switch Cross Reference for Vector Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
LOOKATTEMPTS				X	X	X	X
LOOKFLOWCALLS				X	X	X	X
NUMVDNS		X	X	X	X	X	X
OTHERCALLS		X	X	X	X	X	X
OTHERTIME		X	X	X	X	X	X
OUTFLOWCALLS		X	X	X	X	X	X
OUTFLOWTIME		X	X	X	X	X	X
PHANTOMABNS					X	X	X
RINGCALLS			X	X	X	X	X
RINGTIME			X	X	X	X	X
ROW_DATE		X	X	X	X	X	X
STARTTIME		X	X	X	X	X	X
VDISCCALLS						X	X
VECTOR		X	X	X	X	X	X

VDN Database Items

VDN database items are available only if you have the vectoring feature.

The VDN Database Item descriptions (Table A-16) apply to real-time and historical items.

The **Type** column refers to **Cumulative (C)**, **Administrative (A)**, or **Status (S)** data. Cumulative and Administrative items typically apply to both the current and previous interval real-time tables. Status items apply only to the current interval tables.

Real-Time VDN database items apply to the Current Interval VDN (cvdn) and Previous Interval VDN (pvdn) tables. The real-time indexes are **ACD**, **VDN**, and **VECTOR**.

Historical VDN database items apply to the Intrahour VDN (hvdn), Daily VDN (dvdn), Weekly VDN (wvdn), and Monthly VDN (mvdn) tables, except as noted. The historical indexes are **ROW_DATE** and **VDN**.

Table A-16: VDN Database Items

Database Item	Description	Type
ABNCALLS	Number of INCALLS that were abandoned while INPROGRESS for this VDN. This includes split/skill and direct agent ACD calls that abandon from queue or from ringing, calls that abandon from vector processing, calls that abandon after being routed to an extension via the "route to" vector command, and for the System 85, Generic 2.1, and Generic 3 switches, calls that abandoned while listening to a forced disconnect announcement. PHANTOMABNS are pegged as ABNCALLS .	C
ABNCALLS1-10	Number of INCALLS that abandoned in each of the service level increments PERIOD1 through PERIOD9 (as defined on the ACD Administration: Call Profile window). ABNCALLS10 counts calls that abandoned after PERIOD9 .	C
ABNQUECALLS	Number of ABNCALLS that were abandoned while in a split/skill or direct agent queue. System 85 calls that abandon from ringing are included here.	C
ABNRINGCALLS	Number of split/skill and direct agent ABNCALLS that were abandoned by the caller while ringing at an agent position. Available on Generic 2 and Generic 3 switches.	C

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
ABNTIME	Length of time caller waited before abandoning. For Generic 3 switch phantom abandon calls, ABNTIME is the total time until the agent released the call.	C
ACCEPTABLE	Number of ACDCALLS and CONNECTCALLS that were answered within the acceptable service level (as defined on the ACD Administration: VDN Call Profile window).	C
ACD (index)	ACD number for which data was collected.	A
ACDCALLS	Number of split/skill and direct agent ACD calls that were answered by an agent. This includes calls from vector commands: "queue to main", "check backup", "messaging split/skill", "route to" split/skill or direct agent, and "adjunct routing" to a split/skill or direct agent. ACDCALLS includes BACKUPCALLS and O_ACDCALLS .	C
ACDTIME	Talk time of all ACDCALLS , not including HOLDTIME . ACDTIME includes SKILLTIME1 through SKILLTIME3 .	C
ACTIVECALLS (real-time)	Switch-generated count of the number of active calls in the VDN. This includes only incoming trunk calls directly to the VDN. It does not include internal calls to the VDN, transfers to the VDN, or calls that route to the VDN after having been through another VDN. Available on Generic 3 Version 4 switches.	S
ACWTIME	Time that agents spent in ACW associated with split/skill or direct agent ACD calls. ACWTIME includes SKILLACWTIME1 through SKILLACWTIME3 .	C
ADJATTEMPTS	Number of adjunct-routing attempts for calls to this VDN. Available on Generic 3 switches with the ASAI feature.	C
ADJROUTED	Number of adjunct routing calls that were redirected by the adjunct. Available on Generic 3 switches with the ASAI feature.	C
ANSCONNCALLS1-10	Number of times callers were answered during each of the time periods set up for call profiles. This includes ACD calls and extension calls by a "route to" or "adjunct routing" vector command.	C
ANSTIME	Time split/skill and direct agent ACD calls waited to be answered, in vector processing, in queue, and ringing. For extension calls on System 85 and Generic 2.1 switches, ANSTIME is the time until ringing starts.	C

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
ASA (real-time)	Switch-provided rolling average speed of answer for this VDN. This value is sent to <i>CentreVu</i> CMS whenever it changes on the switch (when a call is answered). Available on Generic 3 Version 4 switches.	S
ATAGENT (real-time)	Current number of INPROGRESS calls (ACD and non-ACD) that have been answered by an agent or a station.	S
BH_ABNCALLS	Number of incoming calls that were abandoned during the busy hour.	C
BH_ACDCALLS	Number of incoming calls that were answered during the busy hour.	C
BH_ACDTIME	Duration of busy hour answered calls.	C
BH_BUSYCALLS	Number of incoming calls that were forced busy during the busy hour.	C
BH_DISCCALLS	Number of incoming calls that were disconnected during the busy hour.	C
BH_OTHERCALLS	Number of other incoming busy hour calls.	C
BH_STARTTIME	Hour for which data was collected.	C
BH_VDNCALLS	Number of calls offered to the VDN during the busy hour.	C
BACKUPCALLS	Number of ACDCALLS that were delivered to this split/skill by a vector command other than a "queue to main split" command. This includes calls delivered by "messaging split/skill", "check backup", "route to" split/skill, and "redirect on no answer" vector commands. MAINCALLS is then calculated as ACDCALLS - BACKUPCALLS . BACKUPCALLS includes messaging split/skill calls, check backup calls, and route to split/skill calls. It also includes direct agent calls, if the feature is in use. MAINCALLS does not include direct agent calls. Available on System 85, Generic 2, and Generic 3 switches with vectoring.	C

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch. This can occur on all switches via the "busy" vector command. On Generic 3 switches, BUSYCALLS can occur if a call is routed to a split with coverage set to "yes" where there are no agents available, the queue is full (or there is no queue), there is no coverage, and an announcement has played or the trunk is not a CO trunk. Also on Generic 3 switches, BUSYCALLS can occur if a call is routed to a direct agent with coverage set to YES, the agent is not logged in and there is no coverage path administered, an announcement has played, or the trunk is not a COtrunk.	C
BUSYTIME	Duration of all BUSYCALLS (until the trunk goes idle).	C
CONNECTCALLS	Number of non-ACD INCALLS that were delivered to a station (other than a VDN or direct agent login ID) by way of a "route to" or "adjunct routing" command and were not abandoned. For System 85 and Generic 2.1 switches, non-ACD abandons are not tracked, so all calls that route to a station extension are included in CONNECTCALLS for those switch releases.	C
CONNECTTIME	Time CONNECTCALLS waited before being answered (Generic 3 switches). For System 85 and Generic 2.1 switches, CONNECTTIME is the time before ringing starts.	C
CONNTALKTIME	Talk time for all CONNECTCALLS , not including HOLDTIME .	C
DISCCALLS	With Generic 2.2, Generic 3 Version 2 (load 100 and later), and Generic 3 Version 3 switches, the number of INCALLS that were disconnected by the switch via the "disconnect" vector command. With System 85, Generic 2.1, Generic 3 Version 1 and Generic 3 Version 2 (prior to load 100) switches, the number of INCALLS that were given a forced disconnect announcement by the "disconnect" vector command and listened to the entire announcement, then were disconnected by the switch. With Generic 3 Version 2 and later Generic 3 switch releases, the number also includes calls disconnected due to the expiration of the vector disconnect timer and those that were disconnected because they reached the end of vector processing without being queued. DISCCALLS includes VDISCCALLS.	C

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
DISCTIME	Time all DISCCALLS spent in this VDN. The time until the trunk drops following the forced disconnect command for those calls recorded as DISCCALLS. For Generic 2.2, Generic 3 Version 2 load 100, and later Generic 3 switches, if the caller hangs up during the forced disconnect announcement, this is the time until the caller hangs up. For System 85, Generic 2.1, and Generic 3 (prior to Version 2 load 100) switches, DISCTIME is the time until the announcement ends and the caller is disconnected by the switch.	C
HOLDABNCALLS	Number of times callers abandoned from hold. For Generic 2.2 and Generic 3 switches, HOLDABNCALLS includes all calls. For System 85 and Generic 2.1 switches, HOLDABNCALLS includes split calls only.	C
HOLDACDCALLS	Number of split/skill or direct agent ACD calls placed on hold at least one time.	C
HOLDACDTIME	Time spent by split/skill or direct agent ACD callers on hold.	C
HOLDCALLS	Number of calls that were placed on hold at least once. For Generic 2.2 and Generic 3 switches, HOLDCALLS includes all calls. For System 85 and Generic 2.1 switches, HOLDCALLS includes split calls only. HOLDCALLS includes HOLDABNCALLS and HOLDACDCALLS.	C
HOLDTIME	Time spent by callers on hold. For Generic 2.2 and Generic 3 switches, HOLDTIME includes all calls. For System 85 and Generic 2.1 switches, HOLDTIME includes split calls only. HOLDTIME includes HOLDACDTIME.	C
ILN	Internal line number of the VDN.	A
INCALLS	Number of inbound calls that were directed to this VDN. INCALLS includes ABNCALLS, ACDCALLS, INFLOWCALLS, and OTHERCALLS. INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS	C

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
INCOMPLETE	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
INFLOWCALLS	Number of calls that were redirected into the VDN by way of a "route to" VDN command.	C
INPROGRESS (real-time)	Current number of inbound calls that are associated with this VDN. Calls are considered to be in progress in the VDN until they route to another VDN, route off the switch, are transferred, or the trunk carrying them goes idle. INPROGRESS includes ATAGENT and INVECTOR .	S
INQUEUE (real-time)	Current number of INPROGRESS calls that are in a split/skill or direct agent ACD queue. For System 85, this includes calls that are ringing at agent positions.	S
INRING (real-time)	Current number of INPROGRESS split/skill and direct agent ACD calls that are ringing at an agent position. Available on Generic 2 and Generic 3 switches.	S
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to a destination outside the switch. INTERFLOWCALLS includes LOOKFLOWCALLS .	C
INTIME	Time spent by INCALLS in this VDN. INTIME = ACDTIME + ABNTIME + OTHERTIME + ANSTIME + HOLDTIME On System 85 and Generic 2.1 switches, there are multiple call handling scenarios in which call-based ACDTIME is stopped before the call ends. In these scenarios, INTIME does not add up to ACDTIME + ABNTIME + ANSTIME + OTHERTIME + HOLDTIME , so hold time cannot be calculated. (The scenarios occur when an agent puts an ACD call on hold using the HOLD key when another ACD call is already on hold or when a call is dropped while an ACD call is on hold.)	C
INTRVL	Number of minutes in the timed period (15, 30, 60). INTRVL applies to intrahour intervals only.	A

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
INVECTOR (real-time)	Current number of INPROGRESS calls that are being processed by a vector. Calls that are in queue and calls that are ringing are still counted as INVECTOR . Calls are no longer counted as INVECTOR when they connect to a station, are answered by an agent, abandon, or outflow from the VDN. INVECTOR includes INQUEUE and INRING .	S
LOOKATTEMPTS	Number of look-ahead interflow attempts for calls in this VDN. Available on Generic 2.2 and Generic 3 switches.	C
LOOKFLOWCALLS	Number of INTERFLOWCALLS that were redirected by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches.	C
MAXOCWTIME	Maximum time during the collection interval that a caller waited in the VDN before being answered or connected, abandoning, being redirected, receiving busy signal or being disconnected. This applies only to the first disposition of the call.	C
MAXWAITING	Maximum number of calls in progress in the VDN during the collection interval.	C
NOANSREDIR	Number of split/skill ACD calls that rang at agent stations and then were automatically requeued to the split's/skill's queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later Generic 3 switches.	C
NUMTGS	Number of trunk groups assigned to this VDN.	A
OLDESTCALL (real-time)	Amount of time the oldest call has been waiting in this VDN to be answered.	S
OTHERCALLS	OTHERCALLS include forced busy, forced disconnect, outflow calls and non-ACD calls that were answered. OTHERCALLS includes BUSYCALLS , CONNECTCALLS , DISCCALLS , and OUTFLOWCALLS . OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS	S
OTHERTIME	Duration of all OTHERCALLS until the calls leave the VDN (for example, calls drop, are sent to another VDN, are transferred, or are sent outside the switch). OTHERTIME includes BUSYTIME , CONNECTTIME , CONNTALKTIME , DISCTIME , and OUTFLOWTIME .	C

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
OUTFLOWCALLS	Number of INCALLS that were redirected to another VDN or to a destination outside the switch by way of a "route to" or "adjunct routing" command. OUTFLOWCALLS includes INTERFLOWCALLS .	C
OUTFLOWTIME	Time all OUTFLOWCALLS spent in this VDN before being redirected.	C
PERIOD1-9	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
PERIODCHG	Indicates whether or not the periods for call profiles were changed during the collection interval.	A
PHANTOMABNS	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer. Available on Generic 3 switches.	C
RETURNCALLS	Number of calls that reached this VDN via the VDN return destination feature. Available on Generic 3 Version 3 and later switches.	C
RINGCALLS	Number of split/skill and direct agent ACD calls that rang at agent positions. Available on Generic 2 and Generic 3 switches.	C
RINGTIME	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition. Available on Generic 2 and Generic 3 switches.	C
ROW_DATE (index)	Date the information was collected.	C
SERVICELEVEL	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
SKILLACWTIME1-3	ACW time spent by agents for calls answered in each VDN skill preference. Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
SKILLCALLS1-3	Number of calls answered by agents in each VDN skill preference. Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C

Table A-16: VDN Database Items (Contd)

Database Item	Description	Type
SKILLTIME1-3	Time agents spent talking on calls answered by each VDN skill preference. Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
SKILL1-3	First, second, and third VDN skill assigned to this VDN. Available on Generic 2.2 and Generic 3 Version 2 and later switches with EAS.	A
STARTTIME	Start time for the interval data was collected.	C
SVCLEVELCHG	Indicates whether or not the service level was changed during the collection interval.	A
TRANSFERRED	Number of calls that were transferred to another destination. For Generic 1 switches, TRANSFERRED includes measured call-to-measured split or measured trunk-to-measured trunk transfers. For System 85 and Generic 2.1 switches, TRANSFERRED includes all calls to a VDN or split. For Generic 3 and Generic 2.2 switches, TRANSFERRED includes all calls.	C
VDISCCALLS	Number of calls forced disconnected because the vector disconnect timer timed out or because the call reached the vector "stop" command without being queued. Available on Generic 3 Version 2 and later Generic 3 switches.	C
VDN (index)	Vector directory number (extension) that this row represents.	A
VECTOR (index)	Number of the vector to which this VDN is assigned.	A

Switch Cross Reference

Table A-17 lists the VDN database items and the switch(es) each item applies to.

Table A-17: Switch Cross Reference for VDN Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ABNCALLS		X	X	X	X	X	X
ABNCALLS1-10		X	X	X	X	X	X
ABNQUECALLS		X	X	X	X	X	X
ABNRINGCALLS			X	X	X	X	X
ABNTIME		X	X	X	X	X	X
ACCEPTABLE		X	X	X	X	X	X
ACD		X	X	X	X	X	X
ACDCALLS		X	X	X	X	X	X
ACDTIME		X	X	X	X	X	X
ACTIVECALLS							X
ACWTIME		X	X	X	X	X	X
ADJATTEMPTS		X	X	X	X	X	X
ADJROUTED					X	X	X
ANSCONNCALLS1-10		X	X	X	X	X	X
ANSTIME		X	X	X	X	X	X
ASA							X
ATAGENT		X	X	X	X	X	X
BH_ABNCALLS		X	X	X	X	X	X
BH_ACDCALLS		X	X	X	X	X	X
BH_ACDTIME		X	X	X	X	X	X
BH_BUSYCALLS		X	X	X	X	X	X
BH_DISCCALLS		X	X	X	X	X	X
BH_OTHERCALLS		X	X	X	X	X	X
BH_STARTTIME		X	X	X	X	X	X
BH_VDNCALLS		X	X	X	X	X	X

Table A-17: Switch Cross Reference for VDN Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
BACKUPCALLS		X	X	X	X	X	X
BUSYCALLS		X	X	X	X	X	X
BUSYTIME		X	X	X	X	X	X
CONNECTCALLS		X	X	X	X	X	X
CONNECTTIME		X	X	X	X	X	X
CONNTALKTIME		X	X	X	X	X	X
DISCCALLS		X	X	X	X	X	X
DISCTIME		X	X	X	X	X	X
HOLDABNCALLS		X	X	X	X	X	X
HOLDACDCALLS		X	X	X	X	X	X
HOLDACDTIME		X	X	X	X	X	X
HOLDCALLS		X	X	X	X	X	X
HOLDTIME		X	X	X	X	X	X
ILN		X	X	X	X	X	X
INCALLS		X	X	X	X	X	X
INCOMPLETE		X	X	X	X	X	X
INFLOWCALLS		X	X	X	X	X	X
INPROGRESS		X	X	X	X	X	X
INQUEUE		X	X	X	X	X	X
INRING			X	X	X	X	X
INTERFLOWCALLS		X	X	X	X	X	X
INTIME		X	X	X	X	X	X
INTRVL		X	X	X	X	X	X
INVECTOR		X	X	X	X	X	X
LOOKATTEMPTS				X	X	X	X
LOOKFLOWCALLS				X	X	X	X
MAXOCWTIME			X	X	X	X	X
MAXWAITING			X	X	X	X	X
NOANSREDIR						X	X

Table A-17: Switch Cross Reference for VDN Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
NUMTGS		X	X	X	X	X	X
OLDESTCALL		X	X	X	X	X	X
OTHERCALLS		X	X	X	X	X	X
OTHERTIME		X	X	X	X	X	X
OUTFLOWCALLS		X	X	X	X	X	X
OUTFLOWTIME		X	X	X	X	X	X
PERIOD1-9		X	X	X	X	X	X
PERIODCHG		X	X	X	X	X	X
PHANTOMABNS					X	X	X
RETURNCALLS						X (V3)	X
RINGCALLS			X	X	X	X	X
RINGTIME			X	X	X	X	X
ROW_DATE		X	X	X	X	X	X
SERVICELEVEL		X	X	X	X	X	X
SKILL1-3				X (EAS)		X (EAS)	
SKILLACWTIME1-3				X (EAS)		X (EAS)	
SKILLCALLS1-3				X (EAS)		X (EAS)	
SKILLTIME1-3				X (EAS)		X (EAS)	
STARTTIME		X	X	X	X	X	X
SVCLEVELCHG		X	X	X	X	X	X
TRANSFERRED		X	X	X	X	X	X
VDISCCALLS						X	X
VDN		X	X	X	X	X	X
VECTOR		X	X	X	X	X	X

Call Work Codes Database Items

Call work codes are only available with Generic 3 and Generic 2.2 switches.

The Call Work Codes database item descriptions (Table A-18) apply to real-time and historical items.

The **Type** column refers to **Cumulative (C)**, **Administrative (A)**, or **Status (S)** data. Cumulative and Administrative items typically apply to both the current previous interval real-time tables. Status items apply only to the current interval real-time table.

Real-Time call work codes apply to the Current Interval CWC (ccwc) and Previous Interval (pcwc) tables. The real-time indexes are **ACD** and **CWC**.

Historical call work codes database items apply to the Intrahour Call Work Codes (hcwc), Daily Call Work Codes (dcwc), Weekly Call Work Codes (wcwc), and Monthly Call Work Codes (mcwc) tables, except as noted. The indexes are **ROW_DATE** and **CWC**.

Table A-18: Call Work Codes Database Items

Database Item	Description	Type
ACD (index)	ACD number for this data.	A
ACDCALLS	Number of split/skill and direct agent ACD calls for which this call work code was entered.	C
ACDTIME	Talk time of all ACDCALLS with this call work code, not including HOLDTIME .	C
ACWTIME	Time that agents spent in ACW for ACDCALLS that were associated with the call work code.	C
CWC (index)	Call work code that this data row represents.	A

Table A-18: Call Work Codes Database Items

Database Item	Description	Type
INCOMPLETE	Indicates whether or not data collection is complete for this interval. Data collection is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data collection is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
INTRVL	Number of minutes in the intrahour interval (15, 30, 60). INTRVL applies to intrahour intervals only.	A
ROW_DATE (index)	Date on which data was collected.	C
STARTTIME	Start time for the interval for which data was collected (Intrahour table only).	C

Switch Cross Reference

Table A-19 lists the Call Work Codes database items and the switch(es) each item applies to.

Table A-19: Switch Cross Reference for Call Work Codes

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ACD				X	X	X	X
ACDCALLS				X	X	X	X
ACDTIME				X	X	X	X
ACWTIME				X	X	X	X
CWC				X	X	X	X
INCOMPLETE				X	X	X	X
INTRVL				X	X	X	X
ROW_DATE				X	X	X	X
STARTTIME				X	X	X	X

Agent Login/Logout Database Items

The Agent Login/Logout database item descriptions (Table A-20) are **historical** items. They apply to the Agent Login/Logout (hag log) table. The indexes are **SPLIT** and **ROW_DATE**.

Table A-20: Agent Login/Logout Database Items

Database Item	Description
ACD (index)	ACD number for which information was collected.
EXTN	Extension number of the station that the agent staffed.
INFLAG	If not null, indicates that agent was already logged in when link came up. Values are NULL and <.
LOGID	Login ID that was used to staff the EXTN .
LOGIN	Time at which the agent logged into this extension and split/skill with the given login ID.
LOGONSKILL2-5	Skill number of the agent's second, third, fourth, and fifth skills. Note that the fifth skill is only applicable to Generic 2.2 switches with EAS. Available on Generic 2.2, Generic 3 Version 2, and later Generic 3 switches with EAS.
LOGOUT	Time at which the agent logged out.
LOGOUT_DATE	Date on which the agent logged out.
OUTFLAG	If not null, indicates that agent logged out while link was down. Values: NULL, ">".
ROW_DATE (index)	Date the agent logged in or out.
SKILLTYPE	Type of agent skill (primary or secondary) for agent's first skill. Available on Generic 3 Version 2 and later Generic 3 switches with EAS.
SKILLTYPE2-4	Type of agent skill (primary or secondary) for agent's second, third, and fourth skills. Available on Generic 3 Version 2 and later Generic 3 switches with EAS.
SPLIT (index)	Split number that this EXTN is assigned to or skill number that the agent logged into.
SPLIT2-5	Skill number of the agent's second, third, fourth, and fifth skills. SPLIT2-4 applies to Generic 3 Version 2 switches with EAS or Generic 2.2 switches with EAS. The fifth skill is only for Generic 2.2 switches with EAS.

Switch Cross Reference

Table A-21 lists the Agent Login/Logout database items and the switch(es) each item applies to.

Table A-21: Switch Cross Reference for Agent Login/Logout Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ACD	X	X	X	X	X	X	X
EXTN	X	X	X	X	X	X	X
INFLAG	X	X	X	X	X	X	X
LOGID	X	X	X	X	X	X	X
LOGIN	X	X	X	X	X	X	X
LOGONSKILL2-4				X (EAS)		X (EAS)	X (EAS)
LOGONSKILL5				X (EAS)			
LOGOUT	X	X	X	X	X	X	X
LOGOUT_DATE	X	X	X	X	X	X	X
OUTFLAG	X	X	X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X
SKILLTYPE						X (EAS)	X (EAS)
SKILLTYPE2-4						X (EAS)	X (EAS)
SPLIT	X	X	X	X	X	X	X
SPLIT2-5	X	X	X	X	X	X	X

Agent Trace Database Items

The Agent Trace database item descriptions (Table A-22) are **historical** items. They apply to the Agent Trace (ag_actv) table. The indexes are **LOGID** and **ROW_DATE**.

The **Optional** database items collect data only when those items are selected in the *CentreVu* CMS System Setup: Agent Trace Record Contents window and are not used in any standard reports. To receive a report containing optional Agent Trace historical database items, a custom report must be created.

Table A-22: Agent Trace Database Items

Database Item	Description
ACD (index)	ACD number for which information was collected.
DIRECTION	Direction of the call - NULL, IN, or OUT.
DURATION	Length of time in the given work state (work mode and direction).
EVENT_TIME	Time of day (hour, minute, and second) the WORKMODE or DIRECTION changed.
LOGID (index)	Login ID that was used to staff the extension.
RECONNECT	This event represents the agent reconnecting to the call after putting it on hold. Available on System 85, Generic 2, and Generic 3 switches.
ROW_DATE (index)	Date of the agent's work mode or direction change.
SPLIT	Split number that the agent's extension is assigned to or skill number that the agent logged into.
STARTTIME	Time of day (hour and minute) for which the Agent Trace is being ordered. This is the time of day you enter to request the report.
WMODE_SEQ	Sequence number for events that occur in the same second.
WORKMODE	Work mode the agent was in. Work modes include: NULL, AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, or UNSTAFF.

Table A-22: Agent Trace Database Items (Contd)

Database Item	Description
Optional Database Items	
ASSIST_ACTV	Agent requested supervisor assistance (pressed ASSIST key).
CALLER_HOLD	Agent put the caller on hold. For System 85 and Generic 2.1 switches, CALLER_HOLD includes split calls. For Generic 2.2 and Generic 3 switches, CALLER_HOLD includes all calls.
CALLING_PTY	Calling party identification. This is the ANI/SID, for Generic 2.2 and Generic 3 Version 4 switches with ISDN ANI delivery, extension or trunk equipment location identifying the originator of the call.
CONFERENCE	Agent activated a conference. For Generic 3 and Generic 2.2 switches all calls can be pegged towards CONFERENCE .
DIGITS_DIALED	Digits the agent dialed. Available on Generic 2.2 and Generic 3 switches.
EXT_CALL_ORIG	Agent originated an external call. Available on Generic 2.2 and Generic 3 switches.
KEYBD_DIALED	Call was keyboard-dialed. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.
MCT	Agent activated a malicious call trace. Available on System 85, Generic 2, and Generic 3 (except for Generic 3i Version 1) switches.
PROMPT_DIGITS	Digits the caller entered in response to call prompting. Available on Generic 3 switches with vectoring and call prompting.
TRANSFERRED	Agent transferred the call. For Generic 1 switches, TRANSFERRED includes measured call-to-measured split or measured trunk-to-measured trunk transfers. For System 85 and Generic 2.1 switches, TRANSFERRED includes calls to a VDN or split. For Generic 3 and Generic 2.2 switches, TRANSFERRED includes all calls.
WORKCODE	Call work code entered for the call. Available on Generic 3 and Generic 2.2 switches with call work codes.

Switch Cross Reference

Table A-23 lists the Agent Trace database items and the switch(es) each item applies to.

Table A-23: Switch Cross Reference for Agent Trace Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ACD	X	X	X	X	X	X	X
DIRECTION	X	X	X	X	X	X	X
DURATION	X	X	X	X	X	X	X
EVENT_TIME	X	X	X	X	X	X	X
LOGID (index)	X	X	X	X	X	X	X
RECONNECT		X	X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X
SPLIT	X	X	X	X	X	X	X
STARTTIME	X	X	X	X	X	X	X
WMODE_SEQ	X	X	X	X	X	X	X
WORKMODE	X	X	X	X	X	X	X
Optional Database Items							
ASSIST_ACTV	X	X	X	X	X	X	X
CALLER_HOLD		X	X	X	X	X	X
CALLING_PTY	X	X	X	X	X	X	X
CONFERENCE				X	X	X	X
DIGITS_DIALED				X	X	X	X
EXT_CALL_ORIG				X	X	X	X
KEYBD_DIALED				X	X	X	X
MCT		X	X	X	X	X	X
PROMPT_DIGITS				X	X	X	X
TRANSFERRED	X	X	X	X	X	X	X
WORKCODE				X	X	X	X

Current Day Configuration Forecast Database Items

The Current Day Configuration database item descriptions (Table A-24) are **historical** items used to collect values entered in the Forecast: Current Day window. They apply to the Current Day (f_cday) table. The indexes are **ACD**, **ROW_DATE** and **SPLIT**.

Table A-24: Current Day Configuration Database Items

Database Item	Description
ACD (index)	ACD number for this data.
CHANGE	Additional change factor (percent).
CHPROF	Number of the call handling profile to use.
FMETHOD	Type of trending to use for forecast. Values are 0 = none, 1 = seasonal, 2 = current trending.
HDATE1	Date of first day of historical data to be used.
HDATE2	Date of second day of historical data to be used.
HDATE3	Date of third day of historical data to be used.
HDATE4	Date of fourth day of historical data to be used.
ROW_DATE (index)	Date of the forecast.
SPLIT (index)	Split/skill number.
TRENDBASE	Base date for seasonal trending.
WT1	Weight given to date 1.
WT2	Weight given to date 2.
WT3	Weight given to date 3.
WT4	Weight given to date 4.

Switch Cross Reference

Table A-25 lists the Current Day Configuration database items and the switch(es) each item applies to.

Table A-25: Switch Cross Reference for Current Day Configuration Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ACD	X	X	X	X	X	X	X
CHANGE	X	X	X	X	X	X	X
CHPROF	X	X	X	X	X	X	X
FMETHOD	X	X	X	X	X	X	X
HDATE1	X	X	X	X	X	X	X
HDATE2	X	X	X	X	X	X	X
HDATE3	X	X	X	X	X	X	X
HDATE4	X	X	X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X
SPLIT	X	X	X	X	X	X	X
TRENDBASE	X	X	X	X	X	X	X
WT1	X	X	X	X	X	X	X
WT2	X	X	X	X	X	X	X
WT3	X	X	X	X	X	X	X
WT4	X	X	X	X	X	X	X

Current Day Forecast Report Database Items

The Current Day Report database item descriptions (Table A-26) are **historical** items used to collect values entered in the Forecast: Current Day window. They apply to the Current Day Report (f_cdayrep) table. The indexes are **ACD**, **ROW_DATE** and **SPLIT**.

Forecast data for a split/skill is automatically generated when the Forecast Manager runs (if you have also completed a Current Day Configuration for the split/skill).

Table A-26: Current Day Report Database Items

Database Item	Description
ACD (index)	ACD number for this current day data.
AGOCC	The objective maximum percentage of time that an agent will be on ACD calls (agent occupancy).
AVGAGSERV	Objective average number of seconds for an agent to service a call.
AVGSPEEDANS	Objective average speed of answer in seconds for this time of call.
FCALLS	Number of forecast calls carried.
INTRVL	Length of intrahour interval (15, 30, or 60 minutes). INTRVL applies to intrahour intervals only.
NUMAGREQ	Number of agents required to handle FCALLS .
RAGOCC	Resulting maximum percentage of time that an agent will be on ACD calls.
RAVGSPEEDANS	Resulting average speed of answer in seconds for this type of call.
ROW_DATE (index)	Date of the forecast.
RSERVLEVELP	Resulting percentage of calls to be handled within SERVLEVELT seconds.
SERVLEVELP	Objective percentage of calls to be handled within SERVLEVELT seconds.
SERVLEVELT	Number of seconds within which SERVLEVELP percent of calls are to be answered (service level time).
SPLIT (index)	Split/skill number.
STARTTIME	Start of intrahour interval (on 24-hour clock).

Switch Cross Reference

Table A-27 lists the Current Day Report database items and the switch(es) each item applies to.

Table A-27: Switch Cross Reference for Current Day Report Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ACD	X	X	X	X	X	X	X
AGOCC	X	X	X	X	X	X	X
AVGAGSERV	X	X	X	X	X	X	X
AVGSPEEDANS	X	X	X	X	X	X	X
FCALLS	X	X	X	X	X	X	X
INTRVL	X	X	X	X	X	X	X
NUMAGREQ	X	X	X	X	X	X	X
RAGOCC	X	X	X	X	X	X	X
RAVGSPEEDANS	X	X	X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X
RSERVLEVELP	X	X	X	X	X	X	X
SERVLEVELP	X	X	X	X	X	X	X
SERVLEVELT	X	X	X	X	X	X	X
SPLIT	X	X	X	X	X	X	X
STARTTIME	X	X	X	X	X	X	X

Call Record Database Items

The Call Record database item descriptions (Table A-28) are **historical** items. They apply to the Call Record (call_rec) table. The indexes are **ACD** and **ROW_DATE**.

Table A-28: Call Record Database Items

Database Item	Description
ACD (index)	Number of the ACD that handled this call.
ACWTIME	Time spent in ACW (after call work) related to this call by the answering agent in this segment, in seconds.
ANSHOLDTIME	Total time call was put on hold by the answering agent, in seconds, in this segment. In agent-to-agent calls, ANSHOLDTIME is accrued for the answering agent if the agent puts the call on hold, but not for the other agent (who continues to accrue talk time). Hold time is recorded for any type of call for Generic 2.2 and Generic 3 switches. Hold time is recorded only for ACD calls for System 85 and Generic 2.1 switches. Hold time is not recorded for Generic 1 switches.
ANSLOGIN	Login ID of the agent who answered the call in this segment.
ASSIST	Whether or not the answering agent in this segment requested supervisor assistance on this call (YES/NO).
AUDIO	Whether or not an agent in this segment reported an audio problem (YES/NO).
CALLID	A unique number assigned to this call and all its segments. For conferenced/transferred calls, two (or more) calls are tied together. When the entire call is recorded, one call ID is used to tie together all call segments. This may result in a "later" segment of the call starting earlier than the first segment. Call IDs are not necessarily strictly sequential, but will be unique for calls over a day.
CALLING_PTY	ANI/SID (Generic 2.2 or Generic 3 Version 4 switches with ANI delivery), extension or trunk equipment location identifying the originator of the call.
CONFERENCE	Whether or not the answering agent initiated a conference on this segment (YES/NO).
CONSULTTIME	Time an agent talked on any outbound call, while in AUX work or ACW. This includes the time the originating agent spent talking to the destination party. This is the time between the two presses of the transfer or conference key. It includes wait time if the agent is calling a VDN or split/skill extension, but the wait time can be subtracted out by subtracting the DISPTIME item from CONSULTIME .

Table A-28: Call Record Database Items (Contd)

Database Item	Description
DA_QUEUED	Whether or not the call was queued as a direct agent call (YES/NO). Applies to Generic 3 switches only.
DIALED_NUM	Number the caller dialed (up to 24 digits). This will be the VDN for inbound vectoring calls and dialed digits for outbound calls. This will be zero for inbound calls without vectoring.
DISPIVECTOR	Number of the first vector associated with the disposition VDN.
DISPOSITION	Represents the call disposition and indicates whether the call was: connected (CONN, non-ACD call to a measured agent), answered (ANS, split/skill or Direct Agent call answered by an agent), abandoned (ABAN), interflowed, forced busy (FBUSY), forced disconnect (FDISC), or other (OTHER) in the segment. A connected call is a non-ACD call to a measured agent for which <i>CentreVu</i> CMS receives an indication that the call was connected or, in the case of System 85 and Generic 2.1 switches, any call that was delivered to an extension by a "route to" vector command (<i>CentreVu</i> CMS receives no indication the call abandons). An answered call is any split/skill or direct agent ACD call for which <i>CentreVu</i> CMS receives an indication that the call was answered by an agent. An abandoned call is any call for which <i>CentreVu</i> CMS receives notification that the caller abandoned. An interflowed call is any call interflowed to another destination. Forced busy calls are calls that <i>CentreVu</i> CMS records as BUSYCALLS for the trunk group that carried them. These calls can be VDN calls that received a forced busy from the vector command or, on the Generic 1 and Generic 3 switches, a split/skill call for a nonvector-controlled split that received a busy indication from the switch because the split queue was full. For Generic 2.2 switches, forced disconnect calls are VDN calls that are disconnected by the switch due to the execution of a disconnect vector command. For System 85, Generic 2.1, and Generic 3 switches, forced disconnect calls are calls that were given a forced disconnect announcement and listened to the entire announcement, then were disconnected by the switch. For Generic 3 Version 2 and later switches, disconnect calls also include calls disconnected because of the vector disconnect timer or because they reached the end of vector processing without being queued. Other calls are any other calls.

Table A-28: Call Record Database Items (Contd)

Database Item	Description
DISPPRIORITY	Priority the call had at its disposition. Priorities can be LOW, MED, HIGH, or TOP (with vectoring) or YES/NO (without vectoring). If the call never queued to a split/skill, the priority will be null.
DISPSPLIT	Number of the split or skill associated with the call at its disposition in this segment. Calls that were not queued to a split or skill at the time of disposition will have DISPLIT set to -1. Calls that were queued to an unmeasured split or skill at the time of disposition will have DISPLIT set to zero.
DISPTIME	Wait time (in the vector, in queue, ringing) until the disposition recorded in DISPOSITION for the call segment. For extension calls made directly to agents (not through a VDN), this will always be zero.
DISPVDN	Number of the VDN associated with the call at its disposition for this segment. DISPVDN will be zero for calls that are not associated with a VDN at their disposition.
DURATION	Total time the trunk was in use. This is the overall trunk holding time from the beginning of the segment until the caller is disconnected. Trunk holding time for the trunk in this segment can involve two trunks, each of which has a holding time. For the first segment of a call, this will be the trunk holding time for the caller for the entire call. With a transfer, the original trunk remains associated with both segments until the call ends. Thus, the DURATION for the first segment is the time from the SEIZED to IDLE state for the trunk
EQLOC	Equipment location of the trunk that carried the call. This will be zero if the trunk is not measured.
EVENT1-9	Number of times each event (stroke count) key was entered for this call segment. Available on System 85, Generic 2, and Generic 3 switches.
FIRSTVECTOR	Number of the first vector associated with the first VDN for the call segment. This will be zero if no vector is involved.
FIRSTVDN	Number of the first VDN associated with the call segment. This will be zero for calls not associated with a VDN.
HELD	Total number of times this call was placed on hold by the answering agent in this segment. With agent-to-agent calls, this count is incremented for the answering agent who puts the call on hold, but not for the calling agent. With System 85 and Generic 2.1 switches, this equals split/skill calls. With Generic 2.2 and Generic 3 switches, this is all calls.

Table A-28: Call Record Database Items (Contd)

Database Item	Description
HOLDABN	Whether this call abandoned from hold in this segment (YES/NO). With System 85 and Generic 2.1 switches, this is only for ACD calls. With Generic 2.2 and Generic 3 switches, this is for any call.
LASTCWC	Last call work code (up to 16 digits) entered by the answering agent in this segment. Applies to Generic 2.2 and Generic 3 switches only.
LASTDIGITS	Last set of prompted digits sent to the <i>CentreVu</i> CMS by the switch. These are digits the switch sends to <i>CentreVu</i> CMS when it executes a “send digits to CMS” vector command. The digits may have been entered through a “collect digits” vector command or through a “converse” vector command. Currently, no switch release supports this database item.
LASTOBSERVER	Login ID of the last agent that service-observed or bridged on to this call.
MALICIOUS	Was malicious call trace activated for this call segment (YES/NO)? Applies to Generic 2, Generic 3, but not Generic 3i Version 1 switches.
OBSERVINGCALL	Whether this call represents an agent observing or bridging on to an existing call (YES/NO).
ORIGLOGIN	Login ID of the agent originating the call. This is used for calls an agent originates to another agent, to an on-switch extension or to an external destination.
ROW_DATE (index)	Date the call started.
ROW_TIME (index)	Start time for this call segment.
SEGMENT	Number identifying the segment. Segment numbers are from 1 up to the number of segments in the call.
SEGSTART	<i>UNIX</i> [*] time and date when the segment started. (<i>UNIX</i> time and date is the number of seconds since midnight, 01/01/70.) Segments start when <i>CentreVu</i> CMS receives the first message for the call, since each segment represents a call. (When an agent transfers or conferences a call, the agent makes another call to effect the transfer/conference.)

Table A-28: Call Record Database Items (Contd)

Database Item	Description
SEGSTOP	UNIX time and date when the segment ended. A segment ends when all trunks and agents associated with the segment have dropped off the call. This means that after call work time for the agent is included when calculating the segment stop time.
SEQNUM	Unique sequence number for this call record.
SPLIT1	First split/skill the call queued to in the first VDN with which it was associated.
SPLIT2	Second split/skill the call was also queued to in the first VDN with which it was associated. This is for Generic 2.2 with EAS and Generic 3 switches with multiple-split/skill queuing only.
SPLIT3	Third split/skill the call was also queued to in the first VDN with which it was associated. (This is for Generic 2.2 with EAS and Generic 3 switches with multiple-split/skill queuing only.)
TALKTIME	Total talk time for the answering agent in this segment.
TKGRP	Number of the trunk group that carried the call. This will be zero if the trunk group carrying the call is not measured.
TRANSFERRED	Whether or not an answering agent initiated a transfer on this segment (YES/NO). For Generic 1 switches, TRANSFERRED includes measured call-to-measured split or measured trunk-to-measured trunk transfers. For System 85 and Generic 2.1 switches, TRANSFERRED includes to a VDN or split. For Generic 3 and Generic 2.2 switches, TRANSFERRED includes all calls.

*UNIX is a registered trademark of Novell, Inc.

Switch Cross Reference

Table A-29 lists the Call Record database items and the switch(es) each item applies to.

Table A-29: Switch Cross Reference for Call Record Database Items

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
ACD	X	X	X	X	X	X	X
ACWTIME	X	X	X	X	X	X	X
ANSHOLDTIME		X	X	X	X	X	X
ANSLOGIN	X	X	X	X	X	X	X
ASSIST	X	X	X	X	X	X	X
AUDIO		X	X	X	X	X	X
CALLID	X	X	X	X	X	X	X
CALLING_PTY	X	X	X	X	X	X	X
CONFERENCE				X	X	X	X
CONSULTTIME	X	X	X	X	X	X	X
DA_QUEUED					X	X	X
DIALED_NUM		X	X	X	X	X	X
DISPIVECTOR		X	X	X	X	X	X
DISPOSITION	X	X	X	X	X	X	X
DISPPRIORITY	X	X	X	X	X	X	X
DISPSPLIT	X	X	X	X	X	X	X
DISPTIME	X	X	X	X	X	X	X
DISPVDN		X	X	X	X	X	X
DURATION	X	X	X	X	X	X	X
EQLOC	X	X	X	X	X	X	X
EVENT1-9	X	X	X	X	X	X	X
FIRSTIVECTOR		X	X	X	X	X	X
FIRSTVDN		X	X	X	X	X	X
HELD		X	X	X	X	X	X
HOLDABN		X	X	X	X	X	X

Table A-29: Switch Cross Reference for Call Record Database Items (Contd)

Database Item	G1	System 85	G2.1	G2.2	G3V1	G3V2/ G3V3	G3V4
LASTCWC				X	X	X	X
LASTDIGITS							
LASTOBSERVER					X	X	X
MALICIOUS			X	X	X (not G3iV1)	X	X
OBSERVINGCALL					X	X	X
ORIGLOGIN	X	X	X	X	X	X	X
ROW_DATE	X	X	X	X	X	X	X
ROW_TIME	X	X	X	X	X	X	X
SEGMENT	X	X	X	X	X	X	X
SEGSTART	X	X	X	X	X	X	X
SEGSTOP	X	X	X	X	X	X	X
SEQNUM	X	X	X	X	X	X	X
SPLIT1	X	X	X	X	X	X	X
SPLIT2				X (EAS)	X	X	X
SPLIT3				X (EAS)	X	X	X
TALKTIME	X	X	X	X	X	X	X
TKGRP	X	X	X	X	X	X	X
TRANSFERRED	X	X	X	X	X	X	X

Exceptions Historical Database Items

In Table A-30 through Table A-35, the database item **EXTYPE** lists numerical values associated with exception types. The database item **REASON** in Table A-36 lists numerical values associated with exception types.

CentreVu CMS stores exception types using the numerical values, then translates the numbers into the text you see in standard exception reports.

To select specific exception types for a custom report, you must enter the numerical value(s) in the `Select rows where:` statement.

Agent Exceptions Database Items

The Agent Exception database item descriptions (Table A-30) are **historical** items. They apply to the Agent Exception (agex) table.

Table A-30: Agent Exception Database Items

Database Item	Description																																																																
ACD (index)	ACD the agent was logged into.																																																																
EXTYPE	Type of exception that occurred: <table> <tr> <th>Numerical Value</th><th>Type</th></tr> <tr><td>1</td><td>Time Available</td></tr> <tr><td>2</td><td>Time on inbound ACD call (min)</td></tr> <tr><td>3</td><td>Time on inbound ACD call (max)</td></tr> <tr><td>4</td><td>Time in after call work</td></tr> <tr><td>5</td><td>Time on outbound ACW call</td></tr> <tr><td>6</td><td>Time on inbound ACW call</td></tr> <tr><td>7</td><td>Time in AUX work</td></tr> <tr><td>8</td><td>Time on outbound AUX call</td></tr> <tr><td>9</td><td>Time on inbound AUX call</td></tr> <tr><td>10</td><td>Number of outbound ACW calls/agent</td></tr> <tr><td>11</td><td>Number of inbound ACW calls/agent</td></tr> <tr><td>12</td><td>Number of outbound AUX calls/agent</td></tr> <tr><td>13</td><td>Number of inbound AUX calls/agent</td></tr> <tr><td>14</td><td>Login identification</td></tr> <tr><td>15</td><td>Time ACD call spent on hold*</td></tr> <tr><td>16</td><td>Number ACD calls placed on hold*</td></tr> <tr><td>17</td><td>Number ACD calls abandoned while on hold*</td></tr> <tr><td>18</td><td>Time on outbound ACD call (min)</td></tr> <tr><td>19</td><td>Time on outbound ACD call (max)[†]</td></tr> <tr><td>20</td><td>Number calls transferred**</td></tr> <tr><td>21</td><td>Time on external outbound ACW calls[†]</td></tr> <tr><td>22</td><td>Time on external outbound AUX call[†]</td></tr> <tr><td>23</td><td>Time on direct agent call[‡]</td></tr> <tr><td>24</td><td>Number of external outbound ACW calls/agent**</td></tr> <tr><td>25</td><td>Number external outbound AUX calls/agent**</td></tr> <tr><td>26</td><td>Time ACD call spends ringing**</td></tr> <tr><td>27</td><td>Multiple logons</td></tr> <tr><td>30</td><td>Number calls in direct agent queue[‡]</td></tr> <tr><td>31</td><td>Time call waited in direct agent queue[‡]</td></tr> <tr><td>32</td><td>Number calls abandoned from direct agent queue[‡]</td></tr> <tr><td>34</td><td>Number calls outflowed from direct agent queue[‡]</td></tr> </table>	Numerical Value	Type	1	Time Available	2	Time on inbound ACD call (min)	3	Time on inbound ACD call (max)	4	Time in after call work	5	Time on outbound ACW call	6	Time on inbound ACW call	7	Time in AUX work	8	Time on outbound AUX call	9	Time on inbound AUX call	10	Number of outbound ACW calls/agent	11	Number of inbound ACW calls/agent	12	Number of outbound AUX calls/agent	13	Number of inbound AUX calls/agent	14	Login identification	15	Time ACD call spent on hold*	16	Number ACD calls placed on hold*	17	Number ACD calls abandoned while on hold*	18	Time on outbound ACD call (min)	19	Time on outbound ACD call (max) [†]	20	Number calls transferred**	21	Time on external outbound ACW calls [†]	22	Time on external outbound AUX call [†]	23	Time on direct agent call [‡]	24	Number of external outbound ACW calls/agent**	25	Number external outbound AUX calls/agent**	26	Time ACD call spends ringing**	27	Multiple logons	30	Number calls in direct agent queue [‡]	31	Time call waited in direct agent queue [‡]	32	Number calls abandoned from direct agent queue [‡]	34	Number calls outflowed from direct agent queue [‡]
Numerical Value	Type																																																																
1	Time Available																																																																
2	Time on inbound ACD call (min)																																																																
3	Time on inbound ACD call (max)																																																																
4	Time in after call work																																																																
5	Time on outbound ACW call																																																																
6	Time on inbound ACW call																																																																
7	Time in AUX work																																																																
8	Time on outbound AUX call																																																																
9	Time on inbound AUX call																																																																
10	Number of outbound ACW calls/agent																																																																
11	Number of inbound ACW calls/agent																																																																
12	Number of outbound AUX calls/agent																																																																
13	Number of inbound AUX calls/agent																																																																
14	Login identification																																																																
15	Time ACD call spent on hold*																																																																
16	Number ACD calls placed on hold*																																																																
17	Number ACD calls abandoned while on hold*																																																																
18	Time on outbound ACD call (min)																																																																
19	Time on outbound ACD call (max) [†]																																																																
20	Number calls transferred**																																																																
21	Time on external outbound ACW calls [†]																																																																
22	Time on external outbound AUX call [†]																																																																
23	Time on direct agent call [‡]																																																																
24	Number of external outbound ACW calls/agent**																																																																
25	Number external outbound AUX calls/agent**																																																																
26	Time ACD call spends ringing**																																																																
27	Multiple logons																																																																
30	Number calls in direct agent queue [‡]																																																																
31	Time call waited in direct agent queue [‡]																																																																
32	Number calls abandoned from direct agent queue [‡]																																																																
34	Number calls outflowed from direct agent queue [‡]																																																																
LOGID	Login ID of the agent who had the exception.																																																																
ROW_DATE	Date on which the exception occurred.																																																																

Table A-30: Agent Exception Database Items (Contd)

Database Item	Description
ROW_TIME	Time at which the exception occurred.
SPLIT	Split or skill in which the agent was doing work when the exception occurred.
THRESHOLD	Limit, as a number of occurrences, administered for the exception type. An exception occurs when the agent's activity falls outside of that limit.
TIME	Limit, as a number of seconds, administered for timed exceptions types. An occurrence is logged against the threshold when the agent's activity falls outside of that limit.

- * Available only on System 85, Generic 2, and Generic 3 switches.
- † Available only with Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.
- ** Available only with Generic 2.1 or later and Generic 3 switches.
- ‡ Available only with Generic 3 switches with the ASAI or EAS feature.

Split/Skill Exceptions Database Items

The Split/Skill Exception database item descriptions (Table A-31) are **historical** items. They apply to the Split/Skill Exception (sgex) table.

Table A-31: Split/Skill Exception Database Items

Database Item	Description																						
ACD (index)	ACD of the split or skill.																						
EXTYPE	Type of exception that occurred: <table> <tr> <th>Numerical Value</th><th>Type</th></tr> <tr> <td>30</td><td>Number calls waiting</td></tr> <tr> <td>31</td><td>Time call has waited in queue</td></tr> <tr> <td>32</td><td>Number calls abandoned</td></tr> <tr> <td>33</td><td>Number intraflowed-in calls</td></tr> <tr> <td>34</td><td>Number intraflowed-out calls</td></tr> <tr> <td>35</td><td>Number interflowed-out calls</td></tr> <tr> <td>36</td><td>Number calls offered while queue full*</td></tr> <tr> <td>37</td><td>Number calls handled as backup[†]</td></tr> <tr> <td>38</td><td>Number calls transferred**</td></tr> <tr> <td>39</td><td>Average speed of answer (seconds)</td></tr> </table>	Numerical Value	Type	30	Number calls waiting	31	Time call has waited in queue	32	Number calls abandoned	33	Number intraflowed-in calls	34	Number intraflowed-out calls	35	Number interflowed-out calls	36	Number calls offered while queue full*	37	Number calls handled as backup [†]	38	Number calls transferred**	39	Average speed of answer (seconds)
Numerical Value	Type																						
30	Number calls waiting																						
31	Time call has waited in queue																						
32	Number calls abandoned																						
33	Number intraflowed-in calls																						
34	Number intraflowed-out calls																						
35	Number interflowed-out calls																						
36	Number calls offered while queue full*																						
37	Number calls handled as backup [†]																						
38	Number calls transferred**																						
39	Average speed of answer (seconds)																						
ROW_DATE	Date on which the exception occurred.																						
ROW_TIME	Time at which the exception occurred.																						
SPLIT	Split or skill in which the exception occurred.																						
THRESHOLD	Limit, as a number of occurrences, administered for the exception type. An exception occurs when the split's/skill's activity falls outside of that limit.																						
TIME	Limit, as a number of seconds, administered for timed exceptions types. An occurrence is logged against the threshold when the split's/skill's activity falls outside of that limit.																						

* Available only on System 85, Generic 2, and Generic 3 switches.

† Available only with Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.

** Available only with Generic 2.1 or later and Generic 3 switches.

Trunk Group Exceptions Database Items

The Trunk Group Exception database item descriptions (Table A-32) are **historical** items. They apply to the Trunk Group Exception (tgex) table.

Table A-32: Trunk Group Exception Database Items

Database Item	Description																				
ACD (index)	ACD of the trunk group.																				
EXTYPE	Type of exception that occurred: <table><tr><th>Numerical Value</th><th>Type</th></tr><tr><td>50</td><td>Time trunk in use (min)</td></tr><tr><td>51</td><td>Time trunk in use (max)</td></tr><tr><td>52</td><td>Number of trunks in use</td></tr><tr><td>53</td><td>Time any trunk maintenance busy</td></tr><tr><td>54</td><td>Number of trunks maintenance busy</td></tr><tr><td>55</td><td>Length of time all trunks busy</td></tr><tr><td>56</td><td>Number of trunk failures in group</td></tr><tr><td>57</td><td>Number of failures on a single trunk</td></tr><tr><td>58</td><td>Audio difficulty on a trunk</td></tr></table>	Numerical Value	Type	50	Time trunk in use (min)	51	Time trunk in use (max)	52	Number of trunks in use	53	Time any trunk maintenance busy	54	Number of trunks maintenance busy	55	Length of time all trunks busy	56	Number of trunk failures in group	57	Number of failures on a single trunk	58	Audio difficulty on a trunk
Numerical Value	Type																				
50	Time trunk in use (min)																				
51	Time trunk in use (max)																				
52	Number of trunks in use																				
53	Time any trunk maintenance busy																				
54	Number of trunks maintenance busy																				
55	Length of time all trunks busy																				
56	Number of trunk failures in group																				
57	Number of failures on a single trunk																				
58	Audio difficulty on a trunk																				
EQLOC	Trunk location where the exception occurred.																				
LOGID	Login ID of the agent reporting audio difficulty.																				
ROW_DATE	Date on which the exception occurred.																				
ROW_TIME	Time at which the exception occurred.																				
THRESHOLD	Limit, as a number of occurrences, administered for the exception type. An exception occurs when the trunk group's activity falls outside of that limit.																				
TIME	Limit, as a number of seconds, administered for timed exceptions types. An occurrence is logged against the threshold when the trunk group's activity falls outside of that limit.																				
TRKGRP	Number of the trunk group where the exception occurred.																				

VDN Exceptions Database Items

The VDN Exception database item descriptions (Table A-33) are **historical** items. They apply to the Agent Exception (vdnex) table. VDN exceptions are available only with the vectoring feature.

Table A-33: VDN Exception Database Items

Database Item	Description																												
ACD (index)	ACD of the VDN.																												
EXTYPE	Type of exception that occurred: <table> <tr> <th>Numerical Value</th><th>Type</th></tr> <tr> <td>2</td><td>Time at agent (min)</td></tr> <tr> <td>3</td><td>Time at agent (max)</td></tr> <tr> <td>30</td><td>Number calls in an ACD split/skill queue</td></tr> <tr> <td>32</td><td>Number calls abandoned while in vector</td></tr> <tr> <td>33</td><td>Number calls that flowed into VDN</td></tr> <tr> <td>34</td><td>Number calls that flowed out of VDN</td></tr> <tr> <td>35</td><td>Number calls interflowed out of VDN</td></tr> <tr> <td>37</td><td>Number calls handled by backup split/skill</td></tr> <tr> <td>71</td><td>Time in vector (max)</td></tr> <tr> <td>72</td><td>Number calls forced busy</td></tr> <tr> <td>73</td><td>Number calls disconnected</td></tr> <tr> <td>74</td><td>Number unsuccessful look-ahead interflow attempts</td></tr> <tr> <td>75</td><td>Adjunct routing</td></tr> </table>	Numerical Value	Type	2	Time at agent (min)	3	Time at agent (max)	30	Number calls in an ACD split/skill queue	32	Number calls abandoned while in vector	33	Number calls that flowed into VDN	34	Number calls that flowed out of VDN	35	Number calls interflowed out of VDN	37	Number calls handled by backup split/skill	71	Time in vector (max)	72	Number calls forced busy	73	Number calls disconnected	74	Number unsuccessful look-ahead interflow attempts	75	Adjunct routing
Numerical Value	Type																												
2	Time at agent (min)																												
3	Time at agent (max)																												
30	Number calls in an ACD split/skill queue																												
32	Number calls abandoned while in vector																												
33	Number calls that flowed into VDN																												
34	Number calls that flowed out of VDN																												
35	Number calls interflowed out of VDN																												
37	Number calls handled by backup split/skill																												
71	Time in vector (max)																												
72	Number calls forced busy																												
73	Number calls disconnected																												
74	Number unsuccessful look-ahead interflow attempts																												
75	Adjunct routing																												
ROW_DATE	Date on which the exception occurred.																												
ROW_TIME	Time at which the exception occurred.																												
THRESHOLD	Limit, as a number of occurrences, administered for the exception type. An exception occurs when the VDN activity falls outside of that limit.																												
TIME	Limit, as a number of seconds, administered for timed exceptions types. An occurrence is logged against the threshold when the VDN activity falls outside of that limit.																												
VDN	VDN for which the exception occurred.																												
VECTOR	Vector number associated with the exception.																												

Vector Exceptions Database Items

The Vector Exception database item descriptions (Table A-34) are **historical** items. They apply to the Vector Exception (vecex) table. Vector exceptions are available only with the vectoring feature.

Table A-34: Vector Exception Database Items

Database Item	Description														
ACD (index)	ACD of the vector.														
EXTYPE	Type of exception that occurred: <table><tr><th>Numerical Value</th><th>Type</th></tr><tr><td>30</td><td>Number calls in an ACD split/skill queue</td></tr><tr><td>72</td><td>Number calls forced busy</td></tr><tr><td>73</td><td>Number calls disconnected</td></tr><tr><td>74</td><td>Number unsuccessful look-ahead interflow attempts</td></tr><tr><td>80</td><td>Time in vector (min)</td></tr><tr><td>81</td><td>Time in vector (max)</td></tr></table>	Numerical Value	Type	30	Number calls in an ACD split/skill queue	72	Number calls forced busy	73	Number calls disconnected	74	Number unsuccessful look-ahead interflow attempts	80	Time in vector (min)	81	Time in vector (max)
Numerical Value	Type														
30	Number calls in an ACD split/skill queue														
72	Number calls forced busy														
73	Number calls disconnected														
74	Number unsuccessful look-ahead interflow attempts														
80	Time in vector (min)														
81	Time in vector (max)														
ROW_DATE	Date on which the exception occurred.														
ROW_TIME	Time at which the exception occurred.														
THRESHOLD	Limit, as a number of occurrences, administered for the exception type. An exception occurs when the vector activity falls outside of that limit.														
TIME	Limit, as a number of seconds, administered for timed exceptions types. An occurrence is logged against the threshold when the vector activity falls outside of that limit.														
VECTOR	Vector number for which the exception occurred.														

Malicious Call Trace Exceptions Database Items

The Malicious Call Trace Exception database item descriptions (Table A-35) are **historical** items. They apply to the Malicious Call Trace Exception (mctex) table.

Table A-35: Malicious Call Trace Exception Database Items

Database Item	Description				
ACD (index)	ACD on which the malicious call was recorded.				
ANI_SID	Billing number or phone number from which the malicious call originated (available only if the switch has ANI/SID service).				
EQLOC	Location of the trunk that carried the malicious call.				
EXTYPE	Type of exception that occurred: <table> <tr> <th>Numerical Value</th><th>Type</th></tr> <tr> <td>90</td><td>Malicious call</td></tr> </table>	Numerical Value	Type	90	Malicious call
Numerical Value	Type				
90	Malicious call				
LOGID	Login ID of the agent reporting the malicious call.				
ROW_DATE	Date on which the malicious call was reported.				
ROW_TIME	Time at which the malicious call was reported.				
SPLIT	Split/skill of the agent reporting the malicious call.				
TKGRP	Number of the trunk group that carried the malicious call.				
VDN	VDN that carried the malicious call. Available with System 85, Generic 2, and Generic 3 switches with vectoring.				

Data Collection Exceptions Database Items

The Data Collection Exception database item descriptions (Table A-36) are **historical** items. They apply to the Data Collection Exception (linkex) table.

Table A-36: Data Collection Exception Database Items

Database Item	Description																
ACD (index)	ACD for which data collection was interrupted.																
DURATION	Length of time for which data collection was off.																
REASON	Reason for the interruption of data collection. The reasons may be as follows: <table> <tr> <th>Numerical Value</th><th>Reason</th></tr> <tr> <td>91</td><td>Data collection started</td></tr> <tr> <td>92</td><td>Data collection of new translations started</td></tr> <tr> <td>93</td><td>Data collection turned off</td></tr> <tr> <td>94</td><td>Data collection busied out</td></tr> <tr> <td>95</td><td>Data collection timed out</td></tr> <tr> <td>96</td><td>Data collection clock was reset</td></tr> <tr> <td>97</td><td>Data collection session down</td></tr> </table>	Numerical Value	Reason	91	Data collection started	92	Data collection of new translations started	93	Data collection turned off	94	Data collection busied out	95	Data collection timed out	96	Data collection clock was reset	97	Data collection session down
Numerical Value	Reason																
91	Data collection started																
92	Data collection of new translations started																
93	Data collection turned off																
94	Data collection busied out																
95	Data collection timed out																
96	Data collection clock was reset																
97	Data collection session down																
ROW_DATE	Date on which data collection was interrupted.																
ROW_TIME	Time at which data collection was interrupted.																

Agent State and Row Search Values Cross-Reference

Use Table A-37 to identify how *CentreVu* CMS stores Agent State (names) and the applicable row search values.

Table A-37: Agent State and Row Search Values Cross-Reference

Status Database Items	State Names	Numerical Values for Row Search
AG_DEST	PBX	1
	OFF	2
AG_DIR	OUT	1
	IN	2
AG_ORIG	BLANK	0
	PHONE	1
	KEYBOARD	2
ALL_BUSY	YES	1
	NO	0
PER_CHG	YES	1
	NO	0
SLVL_CHG	YES	1
	NO	0
TKSTATE	UNKNOWN	0
	IDLE	1
	SEIZED	2
	QUEUED	3
	CONN	4
	DABN	5
	MBUSY	6
	FBUSY	7
	FDISC	8
	HOLD	9
	RING	80
TK_DIR	IN	2
	OUT	1
TK_PRI	YES	1
	NO	0

Table A-37: Agent State and Row Search Values Cross-Reference (Contd)

Status Database Items	State Names	Numerical Values for Row Search
TK_QTYPE	MAIN	1
	BACKUP	2
WORKMODE	UNKNOWN	0
	UNSTAF	10
	AVAIL	20
	ACD	30
	ACW	40
	AUX	50
	DACD	60
	DACW	70
	OTHER	220
	RING	80
	LOGON	100
	LOGOFF	110
	TRACE ON	120
	TRACE OFF	121

Call Disposition and Row Search Values Cross-Reference

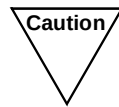
Use Table A-38 to identify how *CentreVu* CMS stores Call Disposition and the applicable row search values.

Table A-38: Call Disposition and Row Search Values Cross-Reference

Status Database Items	State Names	Numerical Values for Row Search
DISPOSITION	CONN	1
	ANS	2
	ABAN	3
	IFLOW	4
	FBUSY	5
	FDISC	6
	OTHER	7

Standard Dictionary Calculations

Table A-39 lists all of the standard *CentreVu* CMS Dictionary calculations. These calculations are used in real-time and historical reports. You can also use them in custom reports.



Do **NOT** modify any of the standard *CentreVu* CMS Dictionary calculations.

Table A-39: Standard Dictionary Calculations

Calculation Name	Calculation	Description
AGENTS_ON_EXT_CALLS	(ONACWIN + ONAUXIN + ONACWOUT + ONAUXOUT)	Agents on extension calls
AVG_ABANDON_TIME	ABNTIME / ABNCALLS	Average time to abandon
AVG_ABANDON_TIME_SUM	sum(ABNTIME) / sum(ABNCALLS)	Total average abandon time
AVG_ACD_TALK_TIME	ACDTIME / ACDCALLS	Average ACD talk time
AVG_ACD_TALK_TIM_SUM	(sum(ACDTIME) / sum(ACDCALLS))	Total average ACD talk time
AVG_ACW_TIME	ACWTIME / ACDCALLS	Average ACW time
AVG_ACW_TIME_SUM	sum(ACWTIME) / sum(ACDCALLS)	Total average ACW time
AVG_AGENT_ACW_SUM	sum(TOTAL_ACWTIME) / sum(TOTAL_ACDCALLS)	Total average agent ACW time
AVG_AGENT_ACW_TIME	TOTAL_ACWTIME / TOTAL_ACDCALLS	Average ACW time
AVG_AGENT_TALK_SUM	sum(TOTAL_ACDTIME) / sum(TOTAL_ACDCALLS)	Total average agent ACD talk time
AVG_AGENT_TALK_TIME	TOTAL_ACDTIME / TOTAL_ACDCALLS	Average agent ACD talk time
AVG_ANSWER_SPEED	ANSTIME / ACDCALLS	Average speed of answer
AVG_ANSWER_SPEED_SUM	sum(ANSTIME) / sum(ACDCALLS)	Total average answer speed
AVG_CONNECT_TIME	CONNECTTIME / CONNECTCALLS	Average amount of time for call to connect to agent
AVG_CONNECT_TIME_SUM	sum(CONNECTTIME) / sum(CONNECTCALLS)	Total average amount of time for call to connect to agent
AVG_HOLD_TIME	HOLDTIME / HOLDCALLS	Average hold time
AVG_HOLD_TIME_SUM	sum(HOLDTIME) / sum(HOLDCALLS)	Total average hold time

Table A-39: Standard Dictionary Calculations (Contd)

Calculation Name	Calculation	Description
AVG_INB_ACD_TIME_SUM	$(\text{sum}(\text{TOTAL\_ACD\_TIME} - \text{O\_ACD\_TIME})) / \text{INBOUND\_ACDCALLS}$	Average inbound ACD time
AVG_INB_ACW_TIME_SUM	$(\text{sum}(\text{TOTAL\_ACW\_TIME} - \text{O\_ACW\_TIME})) / \text{INBOUND\_ACDCALLS}$	Average inbound ACW time
AVG_OUTB_ACD_SUM	$\text{sum}(\text{O\_ACD\_TIME}) / \text{sum}(\text{O\_ACDCALLS})$	Total outbound average ACD talk time
AVG_OUTB_ACD_TIME	$\text{O\_ACD\_TIME} / \text{O\_ACDCALLS}$	Outbound average ACD talk time
AVG_OUTB_ACW_SUM	$\text{sum}(\text{O\_ACW\_TIME}) / \text{sum}(\text{O\_ACDCALLS})$	Total outbound average ACW talk time
AVG_OUTB_ACW_TIME	$\text{O\_ACW\_TIME} / \text{O\_ACDCALLS}$	Outbound average ACW talk time
AVG_POS_STAFF	$\text{I\_STAFF\_TIME} / (\text{INTRVL} * 60)$	Average positions staffed
AVG_POS_STAFF_SUM	$\text{sum}(\text{I\_STAFF\_TIME}) / \text{sum}(\text{INTRVL} * 60)$	Average positions staffed total
AVG_TALK_TIME_IN	$(\text{ACW\_INTIME} + \text{AUX\_INTIME}) / (\text{ACW\_INCALLS} + \text{AUX\_INCALLS})$	Extension in calls average talk time
AVG_TALK_TIME_IN_SUM	$\text{sum}(\text{ACW\_INTIME} + \text{AUX\_INTIME}) / \text{sum}(\text{ACW\_INCALLS} + \text{AUX\_INCALLS})$	Extension in calls total average talk time
AVG_TALK_TIME_OUT	$(\text{ACW\_OUTTIME} + \text{AUX\_OUTTIME}) / (\text{ACW\_OUTCALLS} + \text{AUX\_OUTCALLS})$	Extension out calls average talk time
AVG_TALK_TIM_OUT_SUM	$\text{sum}(\text{ACW\_OUTTIME} + \text{AUX\_OUTTIME}) / \text{sum}(\text{ACW\_OUTCALLS} + \text{AUX\_OUTCALLS})$	Extension out calls total average talk time
AVG_TRK_HOLD_IN_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Inbound total average trunk holding time
AVG_TRK_HOLD_OUT_SUM	$\text{sum}(\text{OUTTIME}) / \text{sum}(\text{OUTCALLS})$	Outbound total average trunk holding time
AVG_TRK_HOLD_TIME	$(\text{INTIME} + \text{OUTTIME}) / (\text{INCALLS} + \text{OUTCALLS})$	Average trunk holding time
AVG_TRK_HOLD_TIME_IN	$\text{INTIME} / \text{INCALLS}$	Inbound average trunk holding time
AVG_TRK_HOLD_TIM_OUT	$\text{OUTTIME} / \text{OUTCALLS}$	Outbound average trunk holding time
AVG_VDN_TIME	$\text{INTIME} / \text{INCALLS}$	Average VDN time
AVG_VDN_TIME_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Average time in VDN total
AVG_VEC_TIME	$\text{INTIME} / \text{INCALLS}$	Average vector time
AVG_VEC_TIME_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Average vector time total
BUSY_DISCONNECT	$(\text{BUSYCALLS} + \text{DISCCALLS})$	Number of calls that were busy and disconnected

Table A-39: Standard Dictionary Calculations (Contd)

Calculation Name	Calculation	Description
CALLS_PER_POS	$(60 * \text{INTRVL} * \text{ACDCALLS}) / \text{I\_STAFFTIME}$	Calls per position
CALLS_PER_POS_SUM	$(\text{sum}(60 * \text{INTRVL}) * \text{sum}(\text{ACDCALLS})) / \text{sum}(\text{I\_STAFFTIME})$	Calls per position total
EXT_CALL_IN	$(\text{ACWINCALLS} + \text{AUXINCALLS})$	Incoming extension calls
EXT_CALL_OUT	$(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$	Outgoing extension calls
EXT_IN_TIME	$(\text{I\_ACWINTIME} + \text{I\_AUXINTIME})$	Time on incoming extension calls
EXT_OUT_TIME	$(\text{I\_ACWOUTTIME} + \text{I\_AUXOUTTIME})$	Time on outgoing extension calls
INBOUND_ACDCALLS	$(\text{sum}(\text{TOTAL\_ACDCALLS} - \text{O\_ACDCALLS}))$	Total inbound ACD calls
INT_AUXTIME	$\text{I\_STAFFTIME} - \text{I\_AVAILTIME} - \text{I\_ACD\_TIME} - \text{I\_ACW\_TIME} - \text{I\_OTHER\_TIME} - \text{I\_RING\_TIME} - \text{I\_DA\_ACD\_TIME} - \text{I\_DA\_ACW\_TIME}$	Total AUX time
PERCENT_ACD_TIME	$100 * ((\text{I\_ACD\_TIME} + \text{I\_ACW\_TIME}) / \text{I\_STAFFTIME})$	Percent ACD time
PERCENT_ACD_TIME_SUM	$100 * (\text{sum}(\text{I\_ACD\_TIME} + \text{I\_ACW\_TIME}) / \text{sum}(\text{I\_STAFFTIME}))$	Percent ACD time total
PERCENT_ALL_BUSY	$100 * (\text{ALLINUSETIME} / \text{SECS\_PER\_DAY})$	Percentage of time all trunks in use
PERCENT_ALL_BUSY_D	$100 * (\text{ALLINUSETIME} / \text{d\_secs.SECSPERDAY})$	Percentage of time all trunks in use in the day
PERCENT_ALL_BUSY_M	$100 * (\text{ALLINUSETIME} / \text{m\_secs.SECSPERMN})$	Percentage of time all trunks in use in the month
PERCENT_ALL_BUSY_W	$100 * (\text{ALLINUSETIME} / \text{w\_secs.SECSPERWK})$	Percentage of time all trunks in use in the week
PERCENT_ALL_BUSY_SUM	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{SECS\_PER\_DAY}))$	Percentage of time all trunks in use
PERCENT_AL_BSY_SUM_D	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{d\_secs.SECSPERDAY}))$	Percentage of time all trunks in use in the day
PERCENT_AL_BSY_SUM_M	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{m\_secs.SECSPERMN}))$	Percentage of time all trunks in use in the month
PERCENT_AL_BSY_SUM_W	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{w\_secs.SECSPERWK}))$	Percentage of time all trunks in use in the week

Table A-39: Standard Dictionary Calculations (Contd)

Calculation Name	Calculation	Description
PERCENT_AUX_WORK	$100 * (I\_AUXTIME / I\_STAFFTIME)$	Percent AUX time
PERCENT_AUX_WORK_SUM	$100 * (sum(I\_AUXTIME) / sum(I\_STAFFTIME))$	Total percent AUX time
PERCENT_CALL_ABAN	$100 * (ABNCALLS / (CALLSOFFERED))$	Percentage of calls abandoned
PERCENT_CALL_ANS	$100 * (ACDCALLS / CALLSOFFERED)$	Percentage of calls offered that were answered
PERCENT_CALL_ANS_SUM	$100 * (sum(ACDCALLS) / sum(CALLSOFFERED))$	Total percent of calls offered that were answered
PERCENT_MBUSY	$100 * (MBUSYTIME / (SECS\_PER\_DAY * TRUNKS))$	Percent of time all trunks in use
PERCENT_MBUSY_D	$100 * (MBUSYTIME / (d\_secs.SECS\_PERDAY * TRUNKS))$	Percent of time all trunks busied-out in the day
PERCENT_MBUSY_M	$100 * (MBUSYTIME / (m\_secs.SECS\_PERMN * TRUNKS))$	Percent of time all trunks busied-out in the month
PERCENT_MBUSY_W	$100 * (MBUSYTIME / (w\_secs.SECS\_PERWK * TRUNKS))$	Percent of time all trunks busied-out in the week
PERCENT_MBUSY_SUM_D	$100 * (sum(MBUSYTIME) / (avg(d\_secs.SECS\_PERDAY) * sum(TRUNKS)))$	Percent of time all trunks busied-out in the day
PERCENT_MBUSY_SUM_M	$100 * (sum(MBUSYTIME) / (avg(m\_secs.SECS\_PERMN) * sum(TRUNKS)))$	Percent of time all trunks busied-out in the month
PERCENT_MBUSY_SUM_W	$100 * (sum(MBUSYTIME) / (avg(w\_secs.SECS\_PERWK) * TRUNKS))$	Percent of time all trunks busied-out in the week
PERCENT_MBUSY_SUM	$100 * (sum(MBUSYTIME) / (avg(SECS\_PER\_DAY) * sum(TRUNKS)))$	Percent time all trunks in use
PERCENT_SERV_LVL_SPL	$100 * (ACCEPTABLE / CALLSOFFERED)$	Percent of calls answered in service level for split
PERCENT_SERV_LVL_VDN	$100 * (sum(ACCEPTABLE) / sum(INCALLS))$	Percent of calls answered within service level for VDN
PERCENT_SLVL_SPL_SUM	$100 * (sum(ACCEPTABLE) * sum(CALLSOFFERED))$	Percent of total split calls answered in service level
PERCENT_VDN_ABAN	$100 * (sum(ABNCALLS) / sum(INCALLS))$	Percent of calls abandoned
PERCENT_VDN_ANSCONN	$100 * (sum(ACDCALLS + CONNECTCALLS) / sum(INCALLS))$	Percent of calls answered in service level

Table A-39: Standard Dictionary Calculations (Contd)

Calculation Name	Calculation	Description
SECS_PER_DAY	$(24 * 60 * 60)$	Seconds per day
TOTAL_ACDCALLS	$(ACDCALLS + DA\_ACDCALLS)$	Total ACD calls
TOTAL_ACDTIME	$(ACDTIME + DA\_ACDTIME)$	Total ACD time
TOTAL_ACWTIME	$(ACWTIME + DA\_ACWTIME)$	Total ACW time
TOTAL_I_ACDTIME	$(I\_ACDTIME + I\_DA\_ACDTIME)$	Total interval-based ACD time
TOTAL_I_ACWTIME	$(I\_ACWTIME + I\_DA\_ACWTIME)$	Total interval-based ACW time

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.

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 4 (R3V4). The Vectoring feature of *CentreVu* CMS enables CMS to work with Call Vectoring and other switch features that use vectors to process calls.

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 E, “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 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 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.

The screenshot shows the 'ACD Administration: Vector Contents' window in the CentreVu(TM) CMS. The window title bar includes the date/time '04/20/95 3:30 PM', the application name 'CentreVu(TM) CMS', and the window state 'Window: 1 of 2 ^'. Inside the window, there are input fields for 'ACD:' and 'Vector:', both currently empty. To the right of these fields is a vertical menu with options: 'acd1', 'Add step', 'Del step', 'Find one', and 'Modify'. Below the input fields is a table with two columns: 'Step' and 'Actions and Conditions'. The table contains 15 rows, with steps 1 through 8 populated with specific actions and conditions, and steps 9 through 15 left empty.

Step	Actions and Conditions
1	goto step 8 if time-of-day is all 17:00 to all 08:00
2	queue-to main split 3 pri m
3	wait-time 12 secs hearing ringback
4	announcement 5400
5	wait-time 10 secs hearing music
6	check-backup split 5 pri m if available agents > 0
7	stop
8	disconnect after announcement 2300
9	
10	
11	
12	
13	
14	
15	

Figure B-1: *CentreVu* CMS Vector Contents Window with Sample Vector

A vector may have up to 15 commands (up to 32 commands for Generic 3 Version 2 or later) administered as vector steps. See Chapter 8, “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 switch or *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 Central Office (CO) passes to the 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 CO **are** the VDN, plus or minus a digit.

- **Through Megacom and a VDN**

For 1-800 and 1-900 service using AT&T Megacom trunk groups, the AT&T network assigns Dialed Number Identification Service (DNIS) digits to the call. The CO 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, with Megacom, the digits outputted by the Central Office (4ESS™) must match the VDN administered in the switch. The actual number dialed does not necessarily correspond to the digits sent by the CO to the switch.

- **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 a Generic 3, 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.

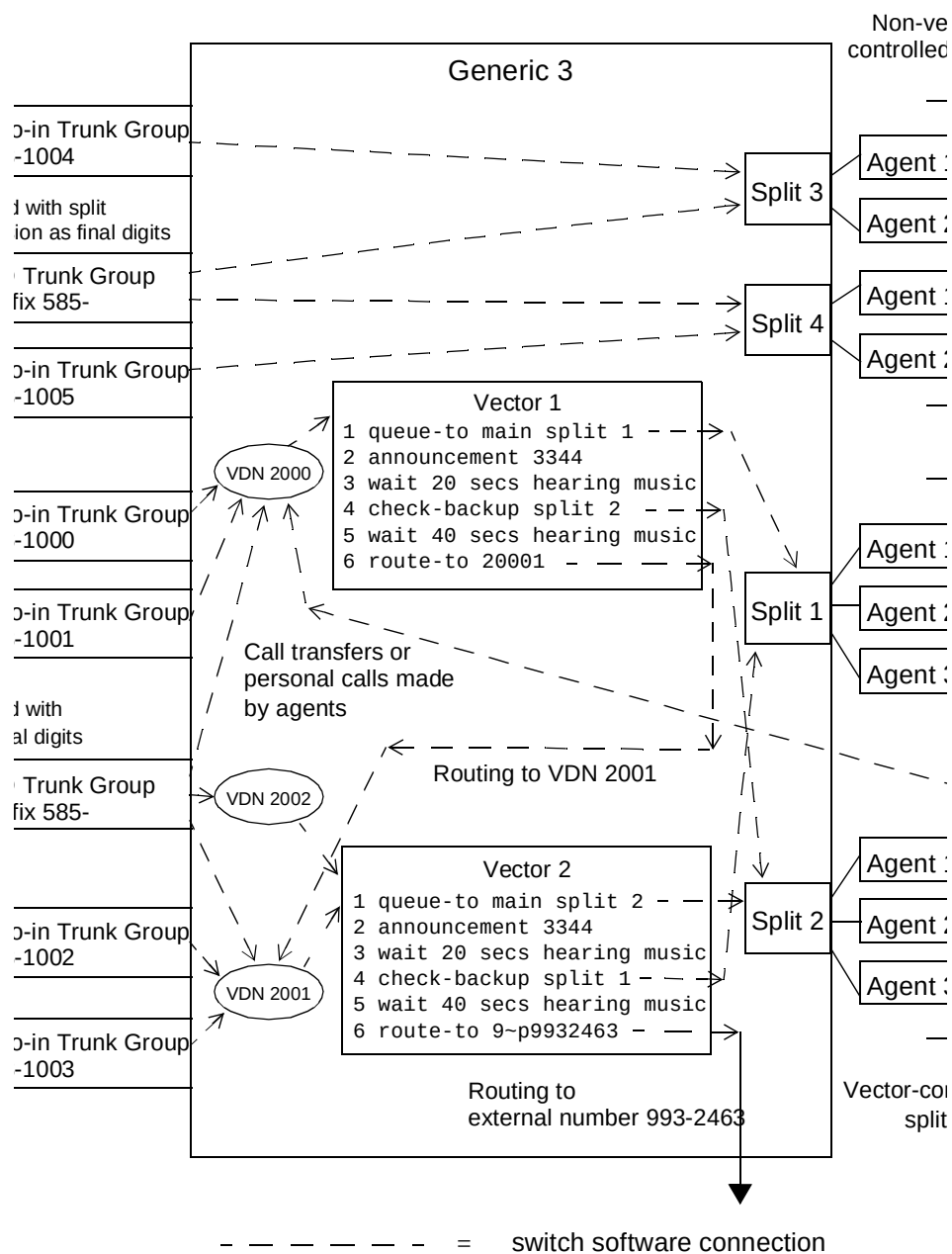


Figure B-2: Generic 3 Configuration with Vector-Controlled and Non-Vector Controlled Splits

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. AT&T 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 and G3V4 and later switches)
- Switch-based rolling Average Speed of Answer (ASA) for the specified VDN or split/skill (available with *CentreVu* CMS R3V4 and G3V4 and later switches)
- Number of counted calls (also called active calls) to the VDN (available with *CentreVu* CMS R3V4 and G3V4 and later switches)
- Expected Wait Time (EWT) for the specified split/skill or call (available with *CentreVu* CMS R3V4 and G3V4 and 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 well over the step limit (15 for Generic 3 Version 1, 32 for Generic 3 Version 2 or later) for a single vector.

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 up to 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.	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 Generic 3 Version 2 or later switches.)	page 13
disconnect	Force 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 23
queue-to main split/skill	Connect/queue call to the primary split/skill.	page 24
route-to number	Connect call to internal/external destination.	page 25
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 26
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) 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 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 higher 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 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 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 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 a non-converse split/skill) is passed to the VRU.
- Wait (Generic 3 Version 4 or later)—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 switches other than Generic 3 Version 4, the allowed values for the comparator are less than (<) or greater than (>). For 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** xxxxxxxxxxxxxxxxxx

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 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 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 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 Generic 3 Version 4 and later 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 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 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 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 step **xx** 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 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 Generic 3 Version 4 and later 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.
 - goto step **xx** 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 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.
 - goto step **xx** 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 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 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 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 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 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 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 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 (also known as “military” time). 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 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 xxxxxxxxxxxxxxxxxxxx**

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 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 (=).

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 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 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 (also known as “military” time). 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 xxxxx

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” (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 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 Generic 3, 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 the call is already queued to but 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 xxxxxxxxxxxxxxxx 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 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 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 xxxxxxxx`

Note

The keyword matching capability is disabled in the “hearing xxxxxxxx” 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.

Generic 3 Version 4

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 xxxxxxxx

Note

The keyword matching capability is enabled in the “then xxxxxxxx” 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 8, “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.

04/20/95 3:30 PM		CentreVu(TM) CMS	Window: 1 of 2 ^
ACD Administration: Vector Contents			acd1
ACD: _____ Vector: _____		Add step Del step Find one Modify	
Step	Actions and Conditions		
1	<u>disconnect</u> after announcement <u>4200</u>		
2			

Figure B-3: Vector 1—Information Announcement

Vector 2—Queue to Main Split 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.

Step	Actions and Conditions
1	queue-to main split 3 pri m
2	wait-time 12 secs hearing ringback
3	announcement 5400
4	wait-time 998 secs hearing music
5	

Figure B-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 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 until they are answered, Step 4 uses the maximum wait time of 998 seconds.

Vector 3—Multiple-Split 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.

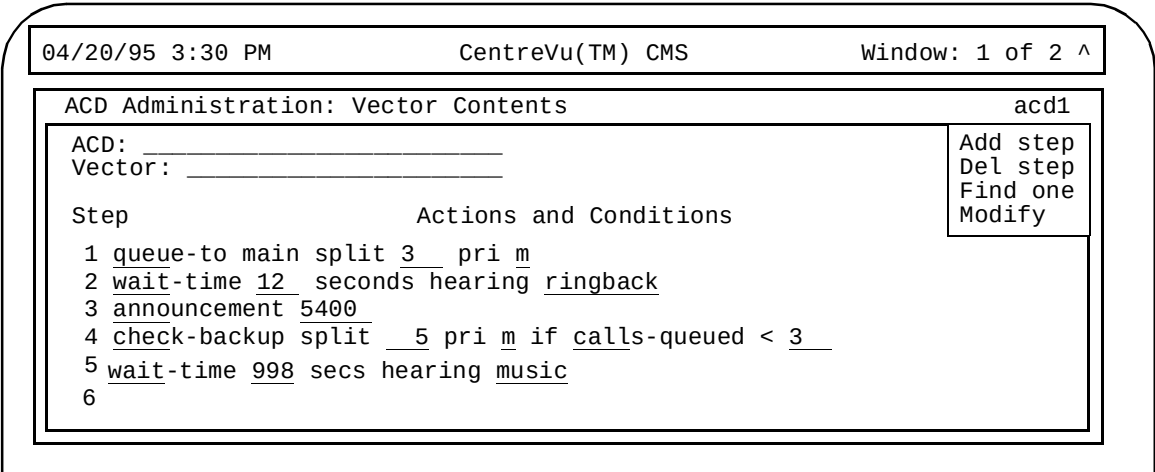


Figure B-5: Vector 3—Multiple-Split Queuing

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.

04/20/95 3:30 PM
CentreVu(TM) CMS
Window: 1 of 2 ^

ACD Administration: Vector Contents
acd1

ACD: _____

Vector: _____

Step	Actions and Conditions
1	goto step 9 if time-of-day is all 17:00 to all 08:00
2	goto step 9 if time-of-day is sat 08:00 to mon 08:00
3	goto step 10 if calls-queued in split 3 pri m > 19
4	queue-to main split 3 pri m
5	wait-time 12 secs hearing ringback
6	announcement 5400
7	wait-time 998 secs hearing music
8	stop
9	disconnect after announcement 4200
10	busy
11	

Add step

Del step

Find one

Modify

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 Steps 1, 2, or 3 is met.

Vector 5—Repeating Delay Announcement Figure B-7 shows a vector with a repeating delay announcement.

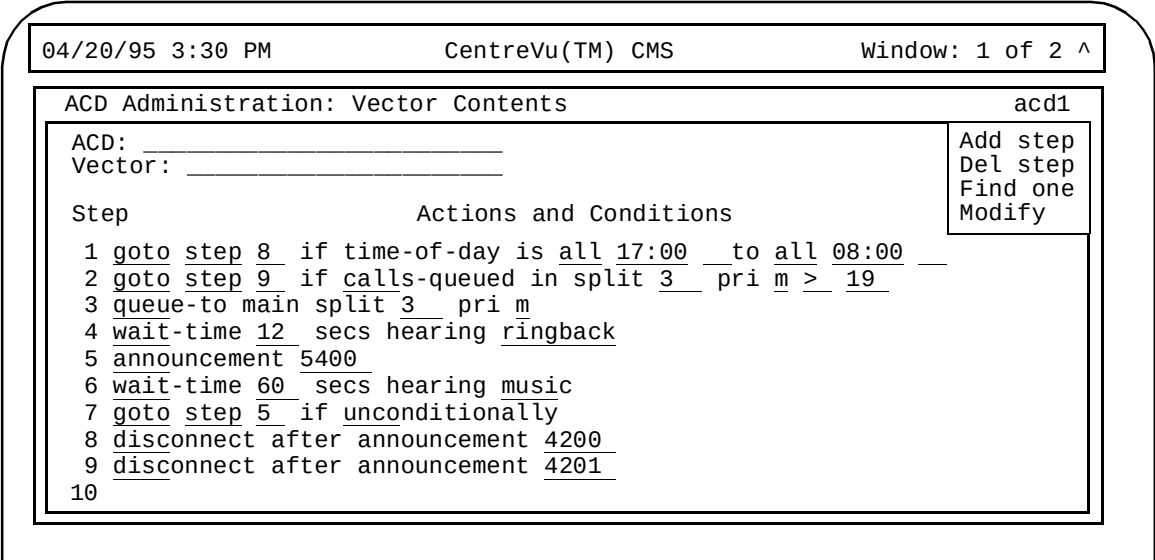


Figure B-7: Vector 5—Repeating Delay Announcement

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 and uses the collected digits to determine call treatment.

- | See the Call Prompting description in this appendix for 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 up to 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 **xxxxx**

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.

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 xxxxxxxxxxxxxxxx`

Vector processing branches to the specified step if the digits collected by the last “collect digits” command are equal to (=) 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 (=).

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 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 switch and can contain as many as 100 entries. Each entry can contain up to 16 characters including the wild cards ? and +.

See the Call Prompting 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 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 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 character string may contain as many as 16 characters, including the digits 0 through 9 and, for Generic 3 Version 4 and later 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 impact 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 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 up to 16 characters including the wild cards ? and +.

See the Call Vectoring 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 xxxxxxxxxxxxxxxxx with cov y/n if digit **CM** x

The “with cov (coverage)” parameter is available only with Generic 3 Version 4 and later switches.

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 or the last “collect digits” command collected more than one digit, no digits, or a digit that does not match the digit specified in the “route-to number” command.

Note

The number of possible matches should be restricted to avoid an excessive wait time and to avoid detrimental impact 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 8, “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.

The screenshot shows a software window titled "ACD Administration: Vector Contents" with a sub-header "acd1". At the top, it displays the date and time "04/20/95 3:30 PM", the system name "CentreVu(TM) CMS", and the window status "Window: 1 of 2 ^". Below the header, there are input fields for "ACD:" and "Vector:". The main area is a table with two columns: "Step" and "Actions and Conditions". The table contains five rows of configuration steps. To the right of the table is a vertical menu with four options: "Add step", "Del step", "Find one", and "Modify".

Step	Actions and Conditions
1	wait-time 0 secs hearing ringback
2	collect 5 digits after announcement 4000
3	route-to digits with coverage y
4	route-to number 0
5	

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.

Step	Actions and Conditions
1	goto step 9 if calls-queued in split 10 pri m > 19
2	queue-to main split 10 pri m
3	wait-time 10 secs hearing ringback
4	collect 1 digits after announcement 4000
5	goto step 9 if digits = 1
6	wait-time 10 secs hearing music
7	announcement 5400
8	goto step 6 if unconditionally
9	messaging-split 12 for extension 4500
10	disconnect after announcement 2300
11	

Figure B-9: Vector 2—Queue to Split 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.

04/20/95 3:30 PM
CentreVu(TM) CMS
Window: 1 of 2 ^

ACD Administration: Vector Contents
acd1

ACD: _____
Vector: _____

Step	Actions and Conditions
1	goto step 6 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	

Add step
Del step
Find one
Modify

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 *DEFINITY* Generic 3 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 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 *CentreVu* 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.

04/20/95 3:30 PM CentreVu(TM) CMS Window: 1 of 1 ^

ACD Administration: Vector Contents acd1

ACD: _____
Vector: _____

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
6	

Add step
Del step
Find one
Modify

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 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 “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.

The screenshot shows a window titled "ACD Administration: Vector Contents" with a sub-header "acd1". It contains fields for "ACD:" and "Vector:". Below these is a table with two columns: "Step" and "Actions and Conditions". The table lists 8 steps. 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). Step 8 is an empty row. A menu on the right includes "Add step", "Del step", "Find one", and "Modify".

Step	Actions and Conditions
1	wait-time 0 secs hearing ringback
2	queue-to main split 4 pri m
3	goto step 5 if oldest-call-wait in split 4 pri m < 30
4	route-to number 9-p5551234
5	wait-time 10 secs hearing ringback
6	announcement 5400
7	wait-time 0 secs hearing music
8	

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.

04/20/95 3:30 PM		CentreVu(TM) CMS	Window: 1 of 2 ^
ACD Administration: Vector Contents			acd1
ACD: _____ Vector: _____		Add step Del step Find one Modify	
Step	Actions and Conditions		
1	goto step 9 if staffed-agents in split 2 < 1		
2	goto step 9 if oldest-call-wait in split 2 pri m > 5		
3	goto step 9 if calls-queued in split 2 pri m > 19		
4	queue-to main split 2 pri h		
5	wait-time 12 secs hearing ringback		
6	announcement 5400		
7	wait-time 20 secs hearing music		
8	goto step 6 if unconditionally		
9	busy		
10			

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, *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.

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.

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 and shows examples of vectors that can be administered using the Vectoring feature of *CentreVu* CMS Release 3 Version 4 (R3V4). 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 E, “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 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 8, “ACD Administration”). As shown in Figure C-1, a vector may have up to 15 commands administered as vector steps.

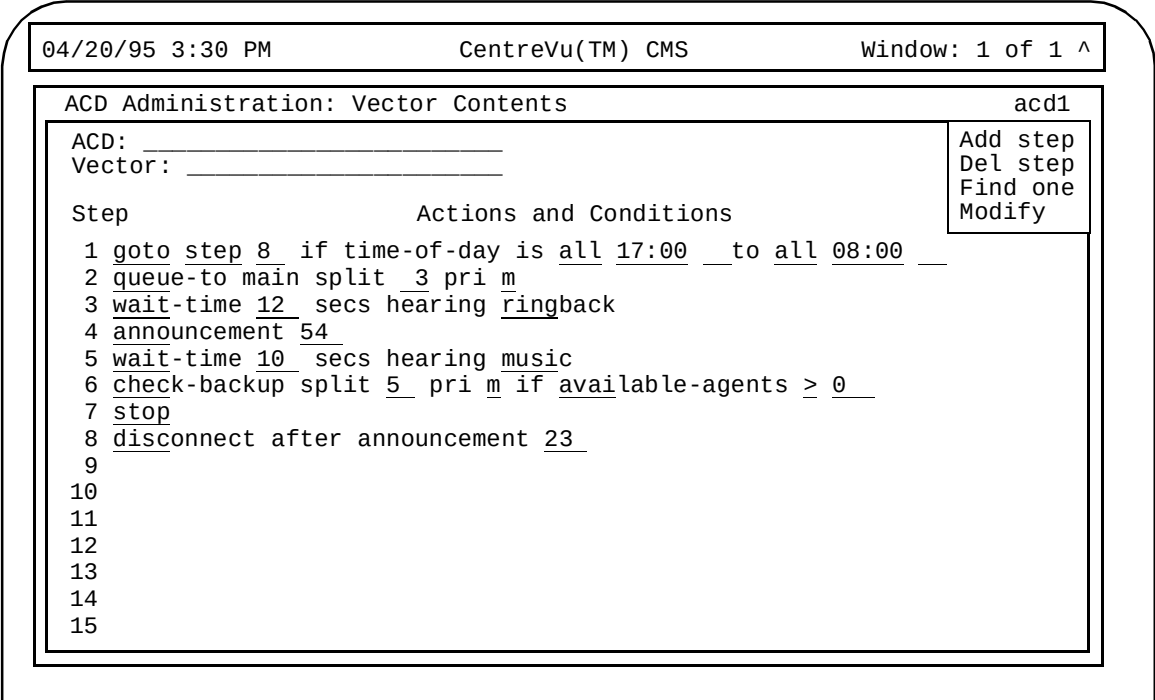


Figure C-1: CentreVu CMS Vector Contents Window With Sample Vector

You can also create a vector with one of the following switch administration tools:

- On a System 85, 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, 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 Central Office (CO) passes to the 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 CO **are** the VDN, plus or minus a digit.

- **Through Megacom and a VDN**

For 1-800 and 1-900 service using AT&T Megacom trunk groups, the AT&T network assigns Dialed Number Identification Service (DNIS) digits to the call. The CO 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, with Megacom, the DNIS assigned to a call by the AT&T network must match the VDN administered in the switch.

- **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 the VDN is assigned to.

VDNs can be reassigned to different vectors or deactivated while still being retained in memory in the switch.

Vector Control of ACD Calls

On a System 85/Generic 2 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.

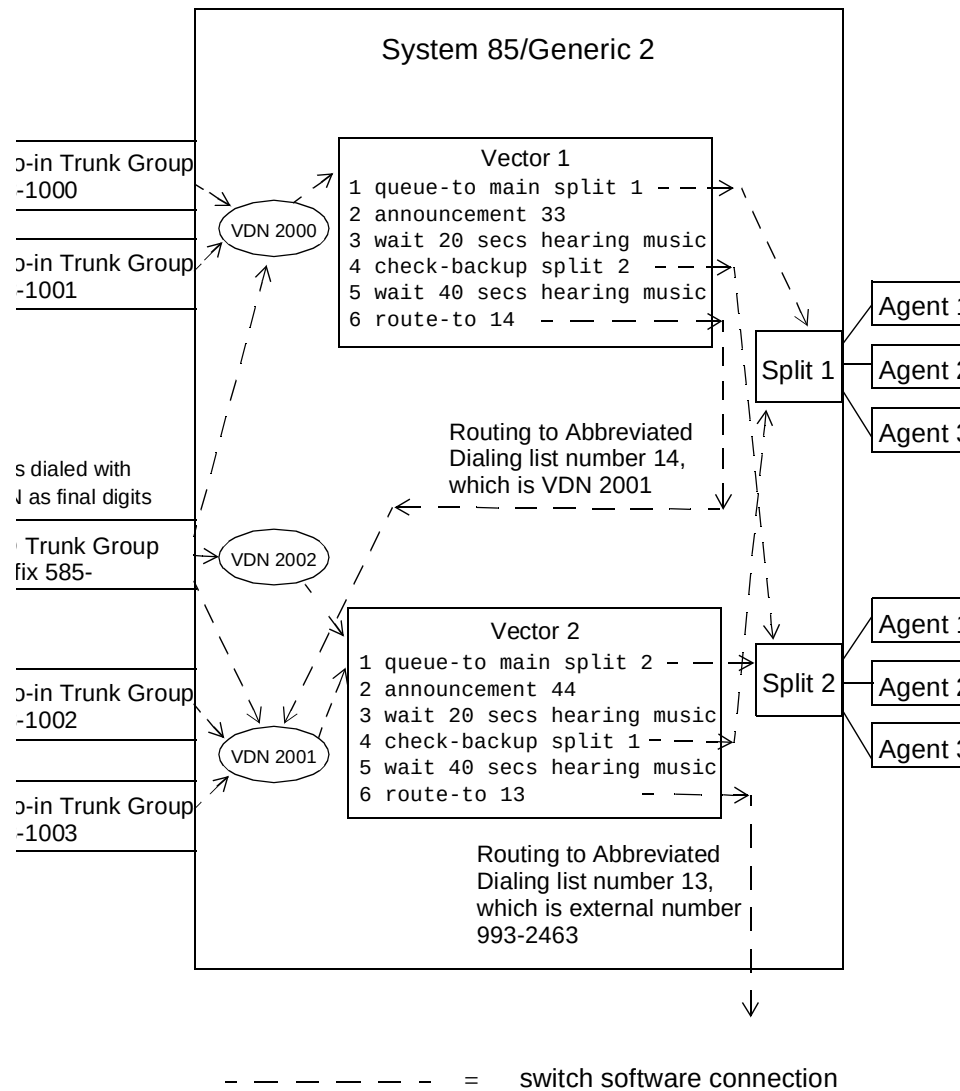


Figure C-2: System 85/Generic 2 Configuration for ACD with Call Vectoring

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. AT&T 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 branches allow 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 *DEFINITY* Generic 2.2 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 well over 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 up to 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 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 without Enhanced ACD features and capabilities, the range of announcement numbers is 16 through 99. For *DEFINITY* Generic 2.2 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 $\leq$ (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 $\leq$ (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 $\leq$ (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 insure 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 a.m./p.m. or in 24-hour notation (also known as “military” time). 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 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 < (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 < (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 < (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 insure 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 a.m./p.m. or in 24-hour notation (also known as “military” time). 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, 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 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 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 xxxxxxxx” 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 2 and 998 seconds. Beginning with Generic 2.2, 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 8, “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.

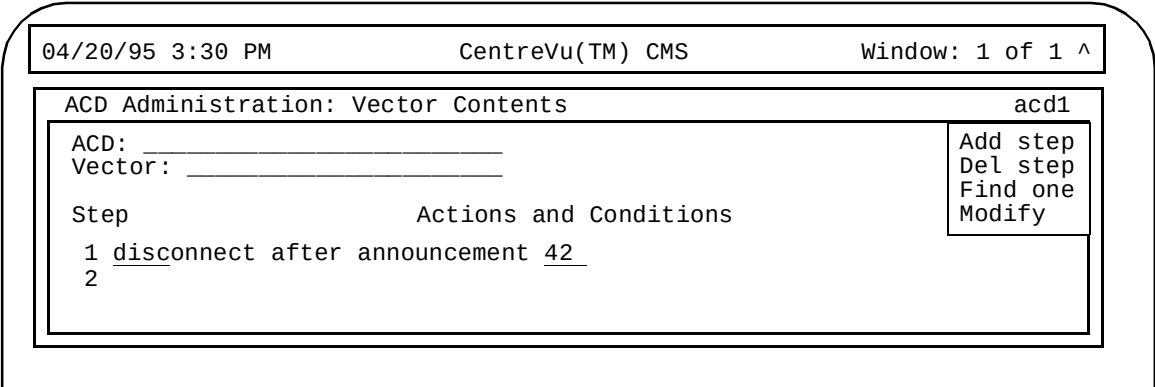


Figure C-3: Vector 1—Information Announcement

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.

Step	Actions and Conditions
1	queue-to main split 3__ pri m
2	wait-time 12 secs hearing ringback
3	announcement 54
4	

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).

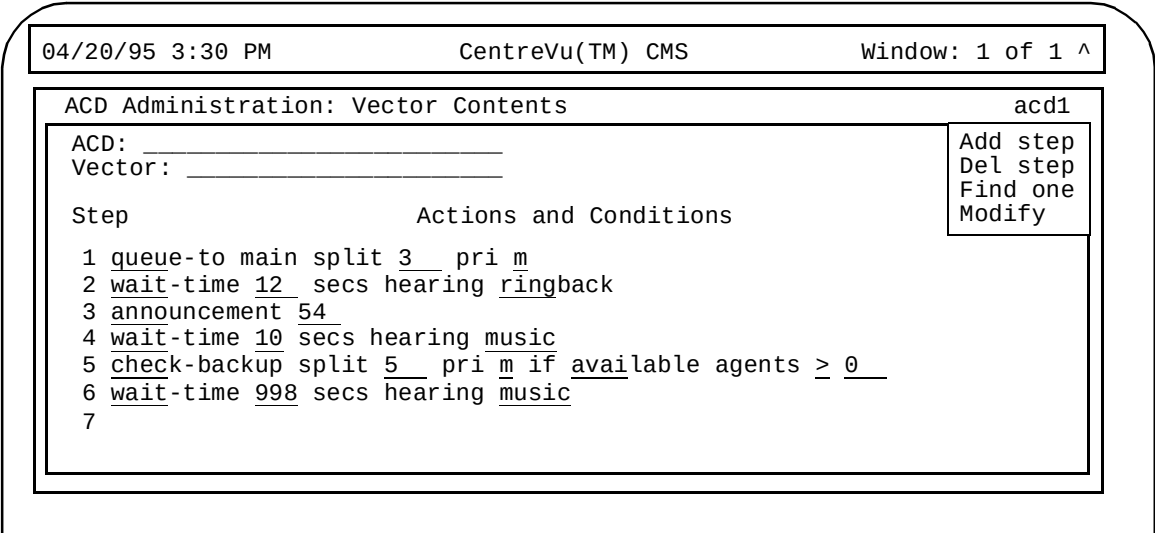


Figure C-5: Vector 3—Check Backup Split

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.

04/20/95 3:30 PM CentreVu(TM) CMS Window: 1 of 1 ^

ACD Administration: Vector Contents acd1

ACD: _____
Vector: _____

Step	Actions and Conditions
1	goto step 10 if time-of-day is all 17:00 to all 08:00
2	goto step 10 if time-of-day is sat 0:800 to mon 08:00
3	queue-to main split 3 pri m
4	wait-time 12 secs hearing ringback
5	announcement 54
6	wait-time 10 secs hearing music
7	check-backup split 5 pri m if available agents > 0
8	wait-time 998 secs hearing music
9	stop
10	disconnect after announcement 23
11	

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, which provide the normal business-hours treatment, are processed. Between 17:00 and 08:00 every day and between 08:00 Saturday and 08:00 Monday, the test succeeds and vector processing branches to Step 10. Step 10 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.

The screenshot shows a window titled "04/20/95 3:30 PM CentreVu(TM) CMS Window: 1 of 1 ^". Inside, the "ACD Administration: Vector Contents" window is open for "acd1". It has input fields for "ACD:" and "Vector:". A table with two columns, "Step" and "Actions and Conditions", contains the following steps:

Step	Actions and Conditions
1	queue-to main split 3 pri m
2	wait-time 12 secs hearing ringback
3	announcement 54
4	wait-time 60 secs hearing music
5	goto step 3 if unconditionally
6	

On the right side of the table, there is a vertical menu with the following options: "Add step", "Del step", "Find one", and "Modify".

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

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.

Sending Vector

Figure C-8 shows a Look Ahead Interflow sending vector.

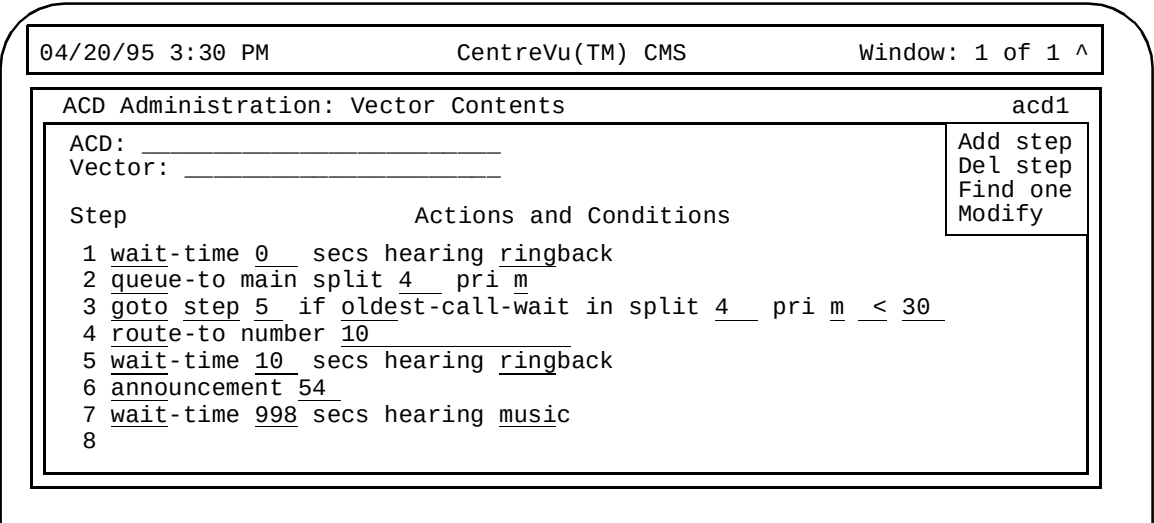


Figure C-8: Look Ahead Interflow Sending Vector

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.

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.

04/20/95 3:30 PM

CentreVu(TM) CMS

Window: 1 of 1 ^

ACD Administration: Vector Contents

acd1

ACD: _____

Vector: _____

Add step

Del step

Find one

Modify

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 h
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	

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 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 without Enhanced ACD features and capabilities, Generic 2.1, 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.

General Information

Audience

Appendix D is written for the *CentreVu*[™] Call Management System (*CentreVu* CMS) administrator and standard users who need a general understanding of the Automatic Call Distribution (ACD) feature.

Introduction

This appendix gives an overview of the ACD feature. ACD is a switch software feature that processes high-volume incoming 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 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 AT&T switches:

- System 85 R2V4 (Release 2 Version 4)
 - *DEFINITY*® Communications System Generic 1
 - *DEFINITY* Communications System Generic 2
 - *DEFINITY* Communications System Generic 3.
-

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 is 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

* 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.

employees. That is, employee phones are connected to a switch by 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:

4. The CO processes the prefix of the dialed number, and then seizes a trunk in the trunk group that is assigned that prefix.
5. The CO passes the remaining digits of the dialed number to the switch.
6. 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 D-1 shows a switch that has an attendant and extensions, and uses both DID and automatic-in call processing.

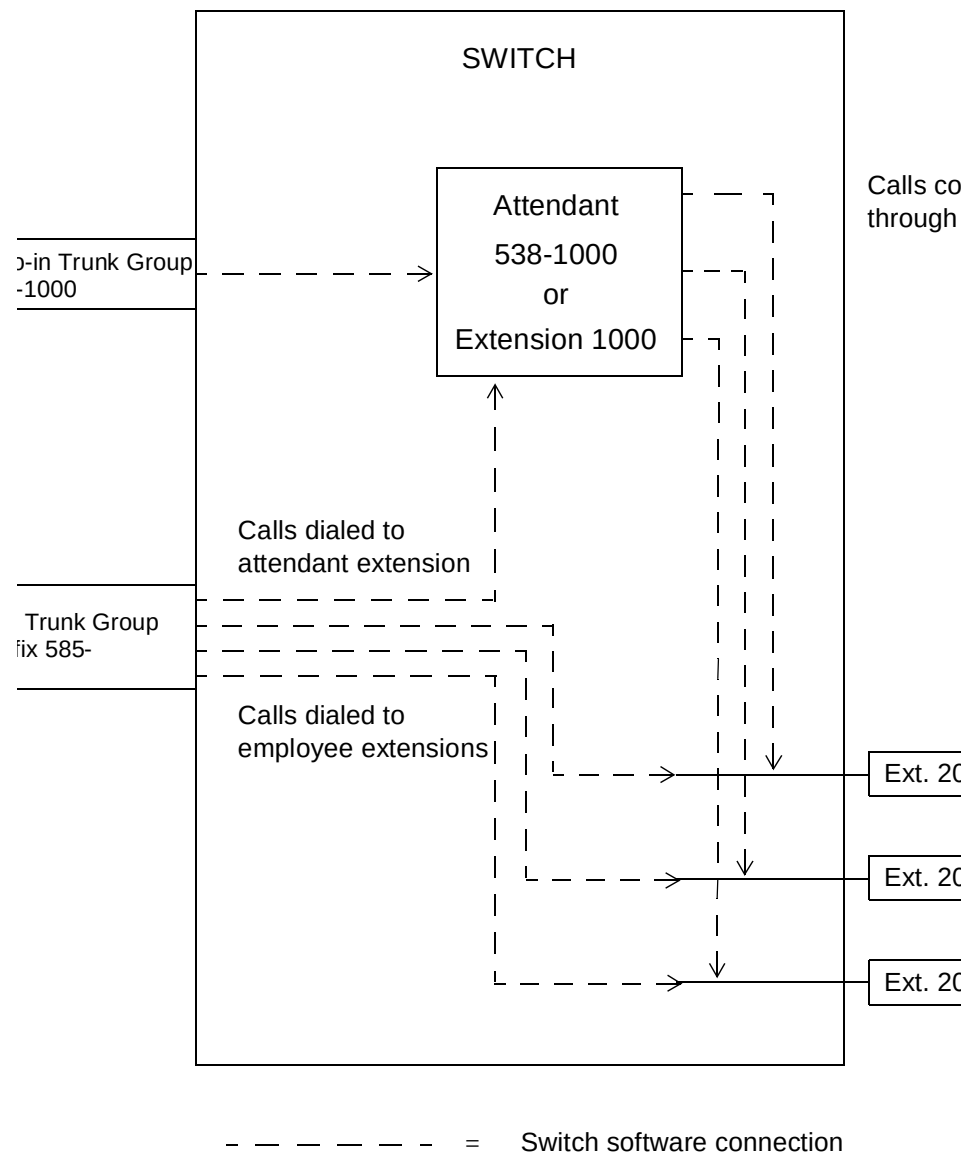


Figure D-1: Typical Call Processing on a Switch Without ACD

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 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/System 85, 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 8, "ACD Administration."

DID Processing of ACD Calls

For Generic 2/System 85, 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.

For Generic 3/Generic 1, one extension, called a hunt group extension, can be assigned to a split as a DID extension.

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. The mixture of ACD and non-ACD call traffic on a DID trunk group makes precise measurement of ACD call traffic extremely difficult. Call traffic on automatic-in trunk groups is much easier to monitor and control because all call traffic goes only to the assigned split. For these reasons, high-volume numbers (that is, published numbers and numbers advertised to customers) are usually automatic-in trunk group numbers. Associated extension numbers are usually used for internal calls and by off-site employees who know the extension number(s) and simply add the company DID prefix.

Figure D-2 shows an example of call processing on a switch with an ACD.

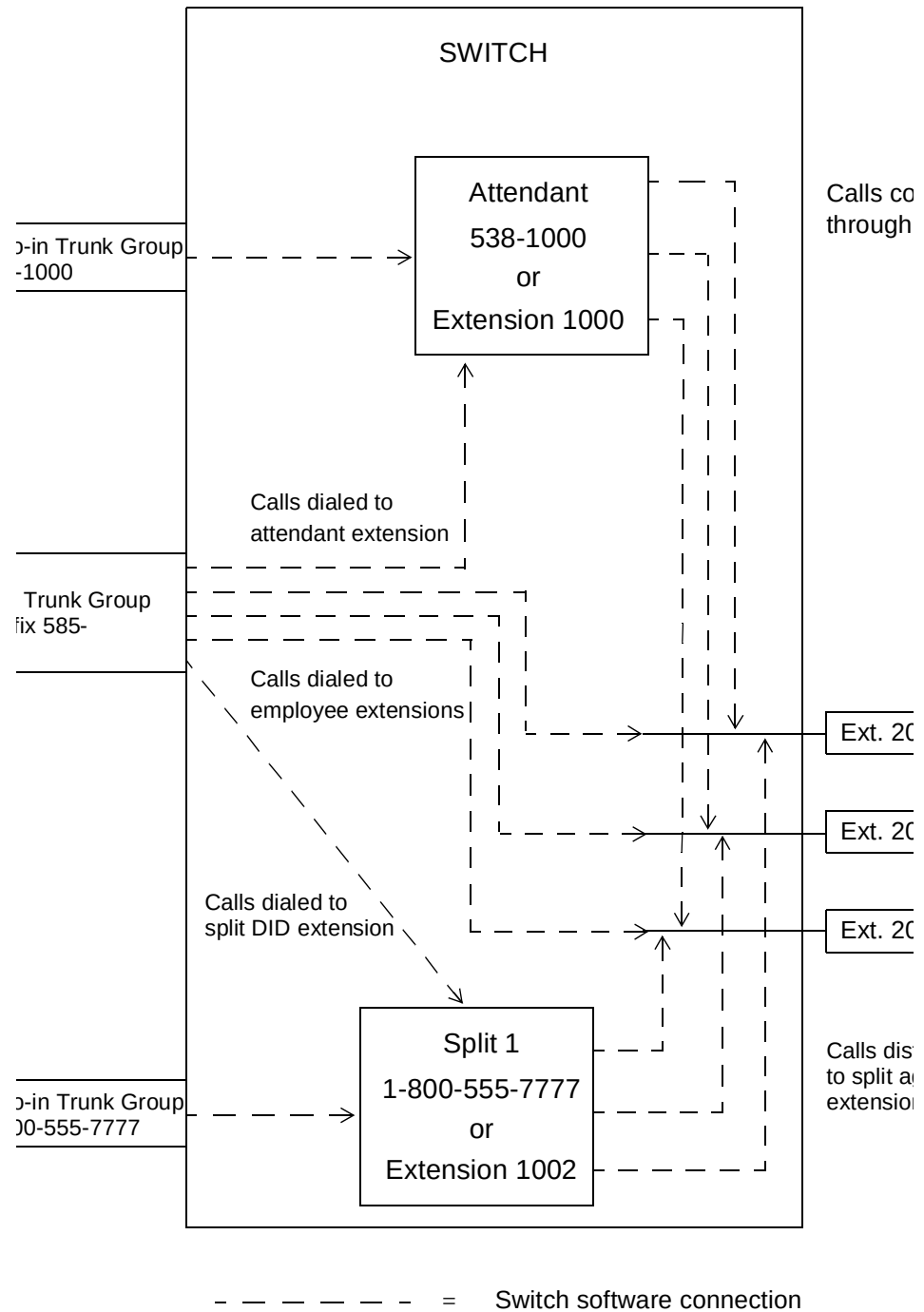


Figure D-2: Call Processing on a Switch with ACD

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

On Generic 2/System 85 every call enters the split's queue. However, if an agent is available, calls do not wait in queue.

On Generic 3 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. Furthermore, if no agents are logged into the split or if all agents are in AUX work mode (described later), calls do not queue.

A **split queue** is a holding area for calls waiting to be answered in the order in which they were received. When a call is put in queue, the caller may hear one or two 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 System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature, all call treatment including routing, queuing, announcements, and music is specified by call vectors.

Priority and Nonpriority Split Queues

Each split can have two queues: a **nonpriority queue** and a **priority queue**. A split always has a nonpriority 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 nonpriority queue. Therefore, the priority queue, if one exists, must be empty before the ACD distributes calls in the nonpriority queue.

For Generic 2/System 85, automatic-in trunk groups and/or DID extensions are assigned to the appropriate queue (nonpriority or priority) at the same time they are assigned to the split. Also, for Generic 2/System 85, multiple DID extensions and automatic-in trunk groups can be assigned to the nonpriority 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 nonpriority DID extensions or trunk groups enter the nonpriority queue if no agents are available.

For Generic 3/Generic 1, 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.

As an example of priority/nonpriority queuing to a split in Generic 2/System 85, 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 nonpriority 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 nonpriority 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 nonpriority 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 nonpriority 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 Generic 2/ System 85

The number of calls that can queue to a split 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 8, "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.

Split Queue Size for Generic 3/ Generic 1

Queue size is established through switch administration. Calls arriving after the administered queue limit is reached receive a busy signal or go to the split's busy coverage if administered. Or, calls can be redirected to a local or remote destination (see Intraflow and Interflow in this appendix).

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 Generic 2, System 85 R2V4, and Generic 3 with the Call Vectoring feature, announcement capabilities are more flexible than those described in this section. See Appendix B for Generic 3 vectoring. See Appendix C for Generic 2, System 85 vectoring.

The Generic 3 and Generic 1 switches support both internal and external announcement devices.

Generic 2/ System 85

The announcement delay time can be from 2 to 30 seconds. For System 85 and Generic 2.1, as many as 60 unique first announcements can be created. As many as 255 announcements can be created for a Generic 2.2. 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.

Generic 3/ Generic 1

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/System 85 announcement queuing except the announcement queue can hold up to 150 calls and only five calls can simultaneously receive an announcement.

Queuing for internal announcements is quite different. Internal announcements are delivered to 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. For Generic 3vs/s/i, the announcement queue can hold up to 200 calls. For Generic 3r, the announcement queue can hold up to 999 calls. 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/Generic 1 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/Generic 1 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 the 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.

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 as a switch-wide feature on Generic 2/System 85 and assigned to specific trunk groups on Generic 3/Generic 1. 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 Generic 2/System 85 and Generic 3/Generic 1.

Note

If Call Vectoring is active on a Generic 2, System 85 R2V4, or Generic 3, redirection of calls differs significantly from the following intraflow/interflow descriptions. See Appendix B and Appendix C.

Generic 2/ System 85

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 8, “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 5, “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.

Generic 3/ Generic 1

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*

* 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.

- 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.

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; 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 destination number.

Note

For Generic 3/Generic 1, the split supervisor cannot establish conditional intraflow from a voice terminal. Furthermore, *CentreVu* CMS cannot be used to set up or activate intraflow/interflow.

Night Service for Generic 3/Generic 1

Generic 3 and Generic 1 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 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 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 Generic 3/Generic 1 switches. For Generic 3 Version 2 switches that have the Expert Agent Selection feature, DDC cannot be assigned to skills.

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 Generic 3/Generic 1 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 Generic 3/Generic 1, 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.

Generic 2/System 85 switches use different criteria than Generic 3 and Generic 1 switches to determine if an agent is eligible to receive an ACD call. These differences are described below.

Generic 2/System 85

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

* An ACD call that rings at an agent extension is considered completed even if the caller abandons the call before the agent answers.

bottom of the eligible-agent queue when they complete an ACD call for any skill.

Generic 3/Generic 1

When an agent completes an ACD call, the agent is added to the bottom of the eligible-agent queue for the split or skill (skills apply only to Generic 3 Version 2 or later switches with the Expert Agent Selection feature) associated with the call. Agents move toward the top of the eligible-agent queue as long as they remain staffed and in ACW, available or on AUXIN or AUXOUT extension calls from the available state, or on an ACD call for another split or skill. If an 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 is marked as unavailable to take an ACD call, but remains in queue moving toward the top of the queue. Agents in the AUX state are not in the eligible-agent queue.

Agents in multiple splits or with multiple skills enter multiple eligible-agent queues and progress in each queue independent of activity in another split or skill.

Note

This operation is different from Generic 2 switches with the Expert Agent Selection feature. For Generic 2 with EAS, the agent *with the proper skill* who has been idle the longest for any ACD call in the skill tens group receives the call. For Generic 3 Version 2 with EAS, the agent who has been idle the longest for the skill associated with the call receives the next call.

Expert Agent Distribution

Expert Agent Distribution is available only with 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 MIA processing. This additional layer of 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**.



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 Generic 3/ Generic 1 (Without EAS)

To staff an agent extension on Generic 3/Generic 1, 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 Generic 3/Generic 1, 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/System 85, an agent can log into only one split.

Staffing an Agent Extension on Generic 2/ System 85 (Without EAS)

To staff a split extension on Generic 2/System 85, 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.

Note

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/System 85, the login ID must be entered twice.

Note

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)** state, 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.

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 Generic 3/Generic 1)
- Two bursts of zip tone—For calls intraflowed from another split (**Generic 2/System 85 only**)
- Three bursts of zip tone—For calls interflowed from another location (**Generic 2/System 85 only**).

Then, without pushing any buttons, the agent greets the caller.

Ringing (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 AUX-WORK button (or the dial access code, if no button is available) is assigned through switch administration.

On Generic 3/Generic 1, 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** (Generic 3, Generic 1)

The After-Call-Work (ACW) button is only available with Generic 3/Generic 1 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 a System 85/Generic 2, 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 AUX-WORK 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 Generic 3/

Generic 1, the second appearance can only be used to originate calls.

For Generic 2/System 85, the second appearance on a 2-appearance voice terminal should also be originate only, 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 Generic 2/System 85 R2V4 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** (Generic 3)

For Generic 3 Version 3 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** (Generic 3)

For 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 Generic 2/System 85, the agent can press this button after placing an ACD call on hold, then return to the call after talking with the supervisor. On Generic 3/Generic 1, pressing the ASSIST button automatically puts the current call on hold.

- **AUDIO TROUBLE** (Generic 3, Generic 2, System 85)

For Generic 3, Generic 2, and System 85, 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 7, "Exceptions."

Stroke count button "0" is used for reporting audio difficulty.

- **CONFERENCE**

Press this button to add another person to a 2-person call. For Generic 3/Generic 1, an agent with a multi-appearance voice terminal can add up to four additional people to a 2-person call. For Generic 2/System 85 and single appearance voice terminals on Generic 3/Generic 1, 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** (Generic 3, Generic 2.2)

For Generic 2.2 and Generic 3, 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. *CentreVu* CMS is required to store Call Work Codes.

- **CALLER-INFO** (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** (Generic 3, Generic 2, System 85 R2V4)

Press this button to report a malicious call to the attendant. The attendant 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 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** (Generic 3)

For Generic 3 Version 3 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, System 85 R2V4)

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** (Generic 3, Generic 2, System 85)

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** (Generic 3)

For 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 D-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.

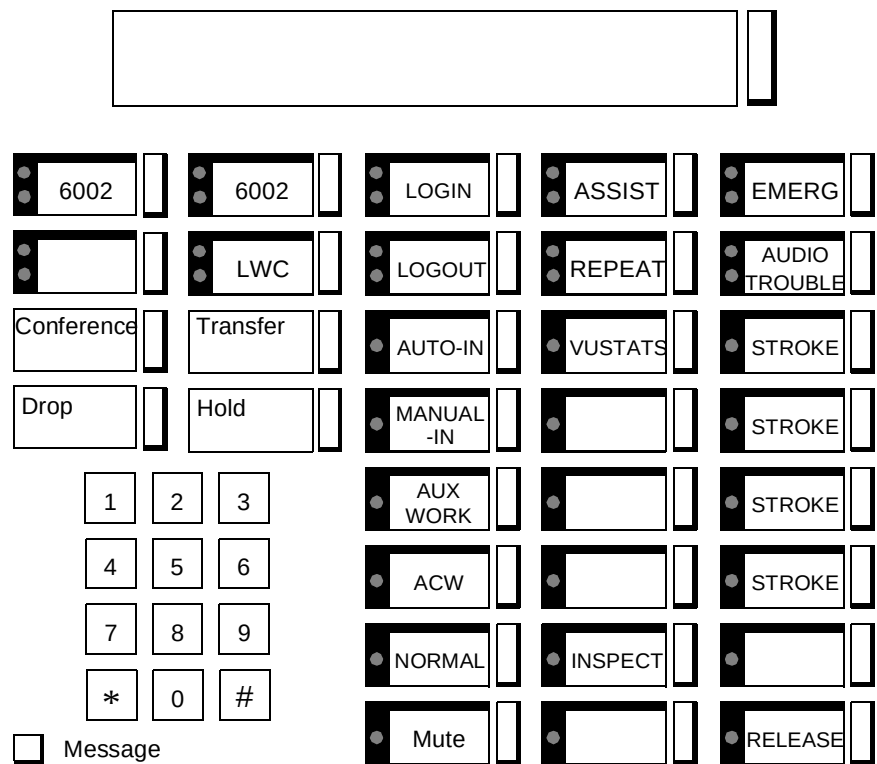


Figure D-3: Sample Button Layout for the *Callmaster* Voice Terminal

Incoming Call Announcements for Agents on Generic 2/ System 85

On Generic 2/System 85, 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/ System 85

On a Generic 2/System 85, 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/System 85 R2V4

For Generic 2/System 85, 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 this:

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/System 85, 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 "****".

Incoming Call Displays for Generic 3/ Generic 1

Incoming call displays for Generic 3/Generic 1 are similar to Generic 2/System 85 with the following exceptions:

- Generic 2/System 85 stores and displays as many as 30 characters for a split or trunk group. Generic 3/Generic 1 stores and displays as many as 15 characters.
- Generic 2/System left adjusts the split or trunk group name. Generic 3/Generic 1 right adjusts the split or trunk group name.

A city-of-origin display might look like this:

a= Detroit to Sales

Queue Status Displays for Generic 3/ Generic 1

Agents with display voice terminals see queue status displays that are similar to Generic 2/System 85 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 and System 85 display queue time in seconds).

A queue status display might look like this:

Sales Q_time 4:37 calls 16

Queue Status Lamps on Agent Voice Terminals for Generic 3/Generic 1

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 Generic 3/Generic 1

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.

Split Supervisor Voice Terminal buttons

A split supervisor is normally assigned to each split. For Generic 2/System 85, the voice terminal assigned to the split supervisor can be used to monitor agent performance, add and remove agents, and perform other split-related activities. Most of these capabilities become automatically available when the split supervisor extension is created. For Generic 3/Generic 1, these capabilities must be assigned with separate switch administration procedures.

The following voice terminal buttons are available only to the split supervisor's extension:

- **ADD AGENT** (Generic 2/System 85)
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/System 85)
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/System 85)
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/System 85)
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** (Generic 3/Generic 1)
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** (Generic 3/Generic 1)

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.

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/System 85)

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** (Generic 3)

For Generic 3 Version 3 and later switches, split supervisors 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 D-4 shows an example of a button layout for a split supervisor's voice terminal.

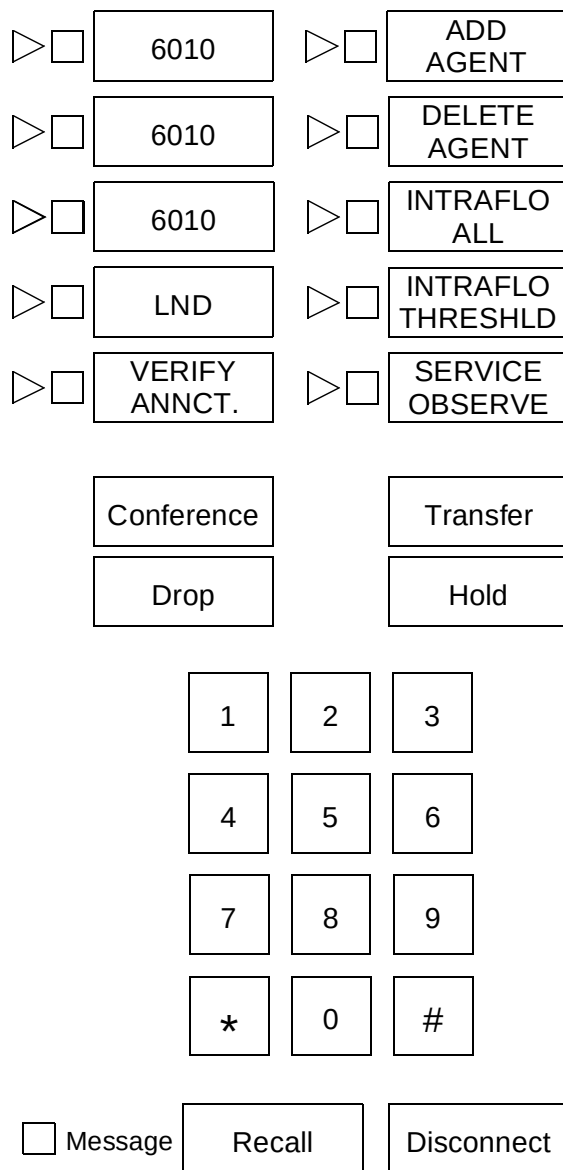


Figure D-4: Sample Button Layout for Split Supervisor Without Agent Responsibilities

Assigning *CentreVu* CMS Measurement of the ACD

CentreVu CMS collects data on splits/skills, agents, extensions, trunks, and trunk groups. However, for *CentreVu* CMS to collect data, the appropriate items (splits/skills, extensions, and so on) must be identified as **measured**. Measured means that, for any split/skill, extension, agent, trunk, trunk group, VDN, or vector, *CentreVu* CMS will collect data on that item. The *CentreVu* CMS ACD Status window (see Chapter 11, “Maintenance”) lists the total number of measured splits/skills, extensions (Agent Positions), trunks, and trunk groups established in an ACD.

Note

On a Generic 3 Version 2 switch, 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 Generic 2.1/ System 85 ACD**

On Generic 2.1/System 85, 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.

***CentreVu* CMS Measurement of the Generic 3, Generic 2.2, and Generic 1 ACD**

For the Generic 3, Generic 2.2, and Generic 1 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, and 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.

Switch Features That Affect *CentreVu* CMS Data

Hold, Conference, and Transfer

For Generic 2.2 and Generic 3 switches, *CentreVu* CMS tracks any type of call an agent puts on hold using any means including: 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 Generic 2.1 and System 85 R2V4 switches, *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 1, Generic 2.1 and System 85 R2V4, 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 these switch releases.

Multiple Call Handling

For System 85 R2V4, 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.

Generic 3 Version 4 adds 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. When the current call is placed on hold or released, ringing time accumulates for the forced call.

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 Generic 3/Generic 1, 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 Generic 3 Version 2 and later, 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 CMS Release 3 Version 2 and later, the database item NOANSREDIR is also incremented. 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.

Phantom Abandon Call Timer

CentreVu CMS can collect information about phantom abandon calls from Generic 3 Version 4 and later switches. When this capability is enabled, calls with a duration shorter than the administered value (0 - 10 seconds) are counted as phantom abandon calls. Setting the timer to zero disables it. *CentreVu* CMS uses the PHANTOMABNS database item to store information about 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. Ghost calls are a problem because they waste agents' time, and they can delay or prevent other calls from connecting to an agent.

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 the customer's future growth expectations when determining the requirements for the ACD. If a growth factor is not included and the customer decides 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 D-1 through Table D-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.

The number of agents and trunks required to handle the incoming calls to an ACD depends on the business being served by the ACD. For example, if a business has a captive customer base and each call represents the pay out of money, the business may want to provide fewer trunks than agents. An example might be the claims department of an insurance company. On the other hand, when each call represents a new customer and each blocked call represents potential lost income, the business will probably want to provide more trunks than agents to minimize the blocking.

The point is this: the design of the ACD should be based on how a business values a lost or blocked call.

Interpolation

Interpolation is a method of estimating tabular values of a function between two known values of that function. When using Table D-1 through Table D-11 to determine the number of agents required and Table D-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 D-1 through Table D-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.

Note

The entries in Table D-1 through Table D-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 D-1 through Table D-5 show where the maximum number of *busy-hour calls* handled by *CentreVu* CMS have been exceeded.

To determine how many agents will be required to handle the incoming call load of an ACD, use Table D-1 through Table D-11 as follows:

- Estimate the average service time (the time an agent spends processing a call, or talking to a caller). Table D-1 through Table D-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 the customer desires for the ACD.
- 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 routed 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 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 D-1 through Table D-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 D-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 $425 * 0.05 / 25 = 0.85$ 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 18.0 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 D-1 through Table D-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 D-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:

y = number of agents needed

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 400 + \left[(450 - 400) \frac{5000 - 4697}{5295 - 4697} \right]$$

$$y = 400 + \left[50 \frac{303}{598} \right]$$

$$y = 425.335$$

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 all parameters—first, 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 D-5 and Table D-6, you will 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

Now interpolate between delay time and calls per hour in both tables to obtain calls per hour for a 40-second delay time.

y = number of calls per hour

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 1322 + \left[(1364 - 1322) \frac{40 - 30}{45 - 30} \right]$$

$$y = 1322 + \left[42 \frac{10}{15} \right]$$

$$y = 1350$$

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 D-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 D-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 D-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 D-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 D-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 D-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 D-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 D-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 D-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 D-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 D-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). As in the case of agents, 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 D-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 D-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 D-12 to:

- Estimate the average call duration: the total time a caller spends waiting for an answer, plus any time on hold (in queue), 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 D-12 are offered loads in *erlangs*.

Example 4:

An airline reservation agency has an ACD that queues calls after two ring cycles. 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?

$$\text{average call duration} = 12 + 30 + 380 = 422 \text{ seconds or } 0.11722 \text{ hours}$$

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 follows:

y = number of trunks

$$y = y_0 + \left[(y_1 - y_0) \frac{x - x_0}{x_1 - x_0} \right]$$

$$y = 250 + \left[(275 - 250) \frac{232.1 - 226}{250.2 - 226} \right]$$

$$y = 250 + \left[25 \frac{6.1}{23.2} \right]$$

$$y = 256.3$$

Therefore, the agency will need 257 trunks to satisfy its customers.

Table D-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

General Information

Audience

Appendix E is written for *CentreVu*™ Call Management System (*CentreVu* CMS) administrator and users who need a general understanding of the Expert Agent Selection (EAS) feature on the *DEFINITY*® Communications System Generic 3 and Generic 2.2 switches.

Introduction

This appendix:

- Describes the optional Expert Agent Selection (EAS) feature and the advantages to your call center using the *DEFINITY* Generic 3 Version 2 or later, or Generic 2.2 switch.
- Describes the planning you should do for your call center before activating the EAS feature.
- Explains what *CentreVu* CMS and switch administration should be completed prior to activating the EAS feature.

Generic 3 Expert Agent Selection

Expert Agent Selection (EAS) is an optional feature that builds on the power of the Call Vectoring and ACD features of the switch to match the skills required to hand a particular call to an agent who has at least one of the skills that a caller requires. The 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. With EAS, call distribution is based on **skill**. You can match the skills required to handle a particular call to an agent who has at least one of the skills that a caller requires.

Note

For more detailed information about EAS, read the *DEFINITY*® *Communications System Generic 3 Call Vectoring/EAS Guide* (AT&T 555-230-520), and the EAS and Call Vectoring feature descriptions in the *DEFINITY Communications System Generic 3 Version 4 Feature Description* (AT&T 555-230-204) document that came with your switch.

Because the Call Vectoring feature is required to use EAS, see Appendix B, “Call Vectoring for Generic 3,” in this document for more information about Call Vectoring.

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 (see the VDN Skill Preference Report). You can see whether vectors are performing as expected.

Skill Definitions

It is important that you understand the different skill definitions:

- **Skill**—In relationship to your call center, think of skill as a specific customer need/requirement or perhaps a business need of your call center. You will be defining your skills based on the needs of your customers and your call center.
- **Agent Skill**—The different types of calls a particular agent can handle. An agent can be assigned up to four skills. These skills are assigned as either primary or secondary skills.
 - **Primary Skill**—An agent will handle calls to primary skills before calls to secondary skills.
 - **Secondary Skill**—An agent will handle secondary skill calls after primary skill calls.
- **Skill Hunt Group**—Calls route to specific skill hunt groups, and 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.
- **Caller Needs**—The reason(s) a customer calls your call center. When a customer calls your call center, the customer dials a specific number which will get the customer to the required skill, or the customer dials a general number and then is prompted (Call Prompting feature) to indicate the reason for the call (caller skill).
 You define the caller requirements in the vector for routing calls to an ACD agent with a particular set of skills 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 vector directory number (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,” “3rd.”

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.

EAS Capabilities

The EAS feature offers three major capabilities.

- **VDN/Agent Skill Call Distribution**
- **Logical Agent**
- **Direct Agent Calling.**

VDN/Agent Skill Call Distribution

The EAS feature enhances the Call Vectoring and Automatic Call Distribution features of the switch by distributing incoming calls based on specific skills assigned to a Vector Directory Number (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 caller's 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.

You can assign agents up to four skills. Each of these skills can be designated as primary or secondary skills. An agent will only receive calls to a secondary skill if there are calls waiting for any of the agent's primary skills. The type of call distribution only affects how a call is distributed if there are multiple agents available to take the call. Skill calls are distributed 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 (primary skill agent). Agents who are idle and have secondary agent skills will receive the call queued for a skill if there are no primary agents available.

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.

The following call center example is the “Candy Store Inc.” company. The Candy Store Inc. call center concentrates on: catalog orders for retail customers which includes 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 complaints from all customers.

Table E-1: Customer Needs/Agent Skill Example for Candy Store Inc.

Customer Needs	Required Agent Skill
Retail Orders	Know retail products, shipping interval, billing
Wholesale Orders	Know wholesale product line, shipping interval, billing
Customer Service	Handle problems associated with orders/billing

After determining your customer needs and the skills your agents need, you will assign caller needs on the switch. This means identifying skill hunt groups. In the case of the Candy Store Inc. example, hunt group skills 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

Note

Skill Hunt Groups and VDNs must be assigned on the switch.

Assigning skill preferences and a vector to each VDN:

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 skills to agents.

Agent	Skills Assigned
Mary Smith	11 primary

Agent	Skills Assigned	
Jo Little	21 primary	11 secondary
Sally Jones	31 primary	21 secondary
Ted Montez	11 primary	21 secondary
Ty Chin	99 primary	

Logical Agent

- With logical agent and skills, 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 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. Logical Agent 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 with Logical Agent, agents are not assigned to skill hunt groups. Instead, an agent has specific skills (up to four) 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).

Note

Agent login IDs are assigned 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, 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 an 800 number and be prompted for the agent's login ID extension.

Generic 2.2 Expert Agent Selection

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 (see the VDN Skill Preference Report). You can see whether vectors are performing as expected.
-

Identifying Caller Needs

- You can have callers dial different telephone numbers based on their needs (DNIS).
 - You can have callers use voice prompting to select their needs at a voice response unit (VRU).
 - You can use ANI in an ASAI Gateway application that looks up a client host record and determines the caller's needs (for example, agent the client has been working with).
 - 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 10 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 E-1. For example, 123, the “12” means the skill tens group and the “3” means the actual skill number. An incoming call can queue up to three skills active 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 E-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.

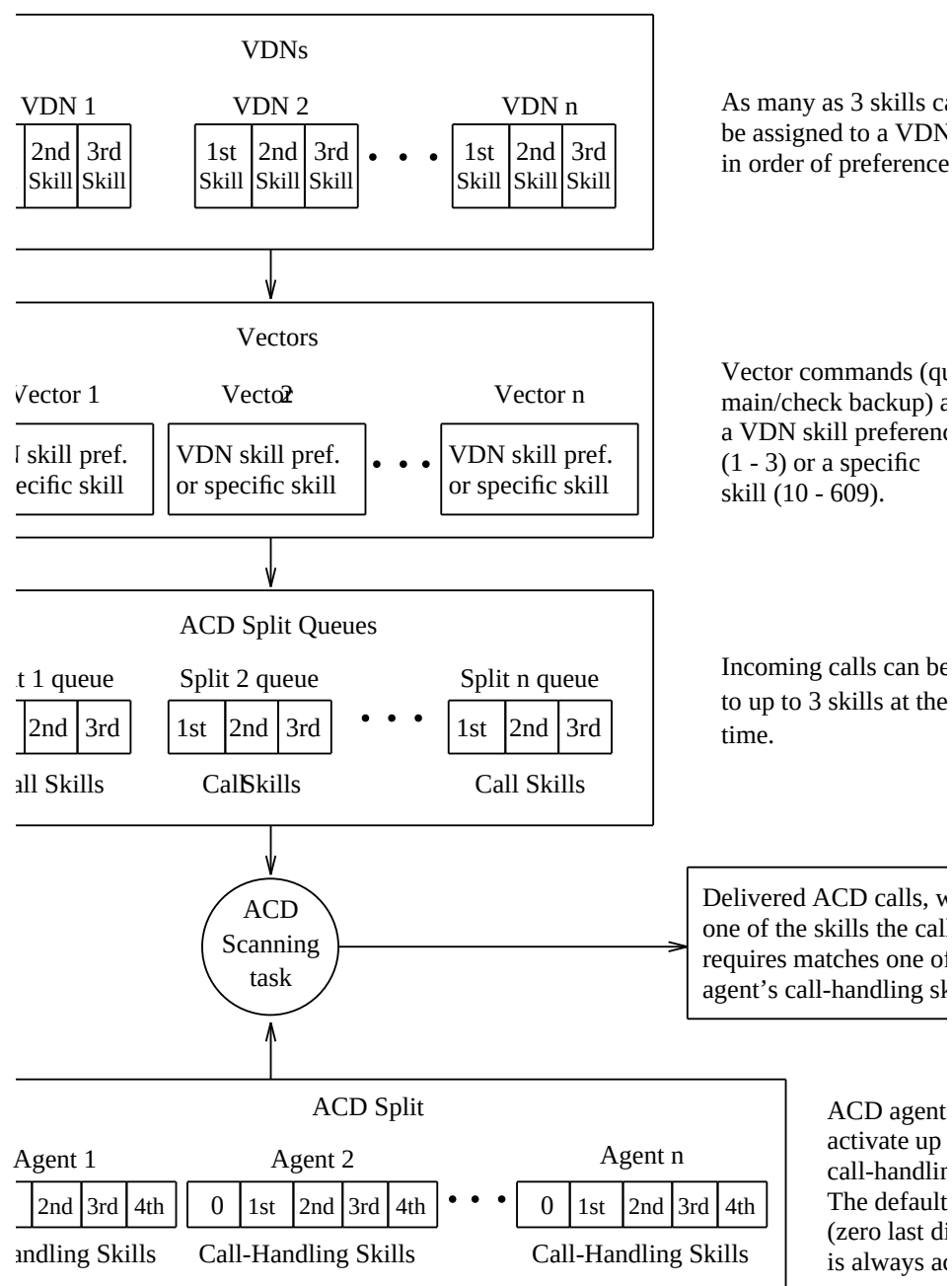


Figure E-1: Expert Agent Selection for Generic 2.2

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 an agent has activated skill codes or not. 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 E-1, scans the incoming call queue and the agent queue associated with each ACD skill hunt group trying to match the skills a call has acquired to an agent's call-handling skills.

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 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 effect 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. Any 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.

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

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 Between Generic 2.2 EAS and Generic 3 Version 2 EAS

The following information is useful if you have both a Generic 2.2 switch with EAS and a Generic 3 Version 2 switch with EAS.

- Agents can be assigned *four* skills on Generic 3 Version 2 and can log into **five** on Generic 2.2 (four plus the default skill).
- On Generic 2.2, agents can log into multiple splits skills only within a skill tens group.
- On a Generic 2.2, calls can be queued up to 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 the queue of the original skill group. This also applies to calls queued using VDN Skill Preferences.
- Generic 2.2 does not have Logical Agent capabilities. On a Generic 2.2, 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. On a Generic 3 Version 2, 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 in which the agent is currently logged into.

- Generic 2.2 does not support direct agent calling.
- Generic 2.2 and Generic 3 Version 2 have different login procedures.
- On a Generic 2.2, agents log into skills individually. On a Generic 3 Version 2, agents are assigned skills and automatically take calls for those skills when they login. Generic 3 Version 2 agents cannot change their skills.
- On a Generic 2.2, the agent's default skill can be change through *CentreVu* CMS if the agent is unstaffed. On a Generic 3 Version 2, 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.
- On a Generic 3 Version 2, primary and secondary priorities are assigned to the skills an agent is assigned. You cannot do this on Generic 2.2. Generic 2.2 does not support Expert Agent Distribution (EAD) call distribution.

-
- On Generic 3 Version 2, call prompting in a vector can be used to determine a caller's needs. A Generic 2.2 must use a Voice Response Unit (VRU). (Generic 2.2 does not support Call Prompting.)
 - On a Generic 2.2, the “oldest call waiting” condition on the *check backup* and *goto* vector commands support only the default skill (not on a per skill basis).
 - On a Generic 2.2, agent extensions are members of skill groups. On a Generic 3 Version 2, skills are assigned to agents.
 - Generic 2.2 supports a maximum of 600 skills. A Generic 3r Version 2 supports 255, Generic 3i Version 2 supports 99, and Generic 3s supports 24.
 - The maximum number of measured agents (that is, agents logged in at one time) on a Generic 2.2 is 1023 (each with up to five skills). The maximum number of measured agents on a Generic 3 Version 2 is 5200 (each with up to one skill) or 1300 agents (each with up to four skills).
 - On Generic 2.2, the Most Idle Agent (MIA) call distribution algorithm is a default skill (skill tens group) basis. On Generic 3 Version 2, the MIA algorithm is on a per skill basis (call Uniform Call Distribution on Generic 3 Version 2).

Planning for EAS

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
- 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 E-2 through Table E-12) 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 E-2 is an example of possible objectives.

Table E-2: 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%

Table E-3: Call Center Objectives Worksheet Generic 3

What Are My Call Center Objectives?

Table E-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 E-5: Individual Agent Skill Worksheet Generic 3

Agent Name	Login ID	Direct Agent?	COR	Coverage Path

Table E-6: VDN Skill Preferences Worksheet Generic 3

VDN	VDN Name	Vector	COR	Skill Preferences		
				1st Skill Name/#	2nd Skill Name/#	3rd Skill Name/#

Table E-7: 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 E-8: Call Center Objectives Worksheet Generic 2.2

What Are My Call Center Objectives?

Table E-9: 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 E-10: Individual Agent Skill Worksheet Generic 2.2**Agent Name:****Agent Login ID:****Extension (Optional):****Skill Tens Group:**

Skill Name	Skill Number

Table E-11: VDN Skill Preferences Worksheet Generic 2.2

VDN	VDN Name	Vector	COR	Skill Preferences		
				1st Skill Name/#	2nd Skill Name/#	3rd Skill Name/#

Skill Tens Group Number _____

[illegible]

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 down.
- 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).
- Unused hunt groups/vectors can be administered as skill hunt groups/vectors prior to activating EAS, but hunt groups being used must be connected at the time EAS is activated.

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, 54321). 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.



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 adding or changing skills, an 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 AT&T 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 up to 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: 107 Agent Skill Entry	No

CentreVu CMS Administration to Use EAS

CentreVu CMS further enhances EAS tracking by allowing you to do the following:

- Reports (Chapter 3, “Real-Time Reports,” Chapter 4, “Historical Reports,” and Chapter 8, “ACD Administration—Configuration Reports”)

Agent activity is summarized over all skills or broken out by skill.

VDN skill activity is found in the VDN Skill Preference reports (one real-time and one historical).

- Dictionary (Chapter 6, “Dictionary”)

— Login IDs

Assign agent names to login IDs so agent names appear on *CentreVu* CMS reports. See “Prerequisite Generic 3 Switch Administration” or “Prerequisite Generic 2.2 Switch Administration” for more information on the recommended digit use for login IDs.

Note

It is recommended that on *CentreVu* CMS you use the same names administered on the switch Login form.

-
- Skill names

Assign names to skills so skill names appear on *CentreVu* CMS reports.

- Exceptions (see Chapter 7, “Exceptions”)

Administer appropriate skill exceptions.

- ACD Administration (see Chapter 8, “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 (Generic 3 Version 2). 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 with EAS only).
- User Permissions (Chapter 9, “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 (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 and 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 R3V4 Custom Reports* (AT&T 585-215-802) document for custom report creation information.

VDN/Vector Tables

The VDN and vector tables include direct agent calls with split/skill ACD calls. Specific tracking is not provided.

- **Personal calls**

The first measured skill a logical agent is logged into (whether primary or secondary) is used by *CentreVu* CMS to track non-ACD calls, unless the agent has an ACD call on hold and the agent is not yet available for other ACD calls. In this case, the non-ACD call is credited to the skill/split of the ACD call.

Database Items

The following database items (Table E-13, through Table E-17) have been added to the *CentreVu* CMS real-time and historical databases.

Real-Time

Table E-13: Agent Real-Time Database Items

Database Item	Description
DA_ACWINCALLS	The number of inbound extension calls received by an agent in ACW for direct agent calls.
DA_ACWINTIME	The talk time of all DA_ACWINCALLS (does not include HOLDTIME).
DA_ACWOCALLS	Number of outbound extension calls made by the agent in ACW for direct agent calls.
DA_ACWOTIME	Talk time of all DA_ACWOCALLS (does not include HOLDTIME).
DA_ACWOADJCALLS	Number of DA_ACWOCALLS that were placed by an adjunct (Generic 2.2 - AG, Generic 3 ASAI) on behalf of an agent (keyboard-dialed).
DA_ACWOFFFCALLS	Number of DA_ACWOCALLS that were made to an off-premises location.
DA_ACWOFFFTIME	Talk time of all DA_ACWOFFFCALLS (does not include HOLDTIME).
LOGONSKILL LOGONSKILL2 LOGONSKILL3 LOGONSKILL4 LOGONSKILL5 (G2.2 only)	The skill numbers with which the agent logged in.
SKILLTYPE, (G3V2 only) SKILLTYPE2 SKILLTYPE3 SKILLTYPE4	The type (primary or secondary) for each skill the agent logged into (G3V2 only).

Table E-14: Split Real-Time Database Items

Database Item	Description
WORKSKILL	The skill associated with the call the agent is on or for which the agent is in after call work. If the agent is available, nothing is shown here, since the agent must be available in all skills to show as available. If the agent is on an AUXIN call, an AUXOUT call, a direct agent call, or is in ACW not associated with a call, the skill shown will be the first one administered and logged into.
WORKSPLIT4*	A skill/split the agent is available in.
WORKSPLIT5 (Generic 2.2 only)	A skill the agent is available in.

* WORKSPLIT2 and WORKSPLIT3 already existed in R3.0 CMS for agents in multiple splits.

Historical

The following agent historical database items (Table E-15) have been added to the agent tables because of direct agent calling.

Table E-15: Agent Historical Database Items

Database Item	Description
DA_ACWINCALLS	The number of inbound extension calls received by an agent in ACW for direct agent calls.
DA_ACWINTIME	The talk time of all DA_ACWINCALLS (does not include HOLDTIME).
DA_ACWOCALLS	Number of outbound extension calls made by the agent in ACW for direct agent calls.
DA_ACWOTIME	Talk time of all DA_ACWOCALLS (does not include HOLDTIME).
DA_ACWOADJCALLS	Number of DA_ACWOCALLS that were placed by an adjunct (Generic 2.2 - AG, Generic 3 ASAI) on behalf of an agent (keyboard-dialed).
DA_ACWOFFFCALLS	Number of DA_ACWOCALLS that were made to an off-premises location.
DA_ACWOFFFTIME	Talk time of all DA_ACWOFFFCALLS (does not include HOLDTIME).

Table E-16: Agent Login/Logout Historical Database Items

Database Item	Description
LOGONSKILL LOGONSKILL2 LOGONSKILL3 LOGONSKILL4	The skill numbers with which the agent logged in.
LOGONSKILL5 (Generic 2.2 only)	The fifth skill number with which the agent logged in.
SKILLTYPE (G3V2 only) SKILLTYPE2 SKILLTYPE3 SKILLTYPE4	The type (primary or secondary) for each skill the agent logged into (G3V2 only).

Table E-17: VDN Database Items

Database Item	Description
SKILL1-3	Skill preference number for the VDN.
SKILLCALLS1-3	The number of calls answered by each VDN skill preference.
SKILLTIME1-3	The time spent talking on calls answered by each VDN skill preference.
SKILLACWTIME	The ACW time spent for calls answered by each VDN skill preference.

Glossary

3332 Platform	<i>Intel</i> [*] -based CMS platform
36386/25 Platform	<i>Intel</i> -based CMS platform
6386/33 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 or in a vector/VDN before it is abandoned.
Abandoned Call Search	An ACD capability that enables the system to make sure that the caller is on the line before passing the call to an agent.
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 must activate an agent trace to obtain an Agent Trace report.

^{*} Intel is a registered trademark of Intel Corp.

Active VDN Calls	The number of calls currently active in a VDN. The G3V4 vector enhancement “VDN Calls Routing” refers to the ability to program a vector step according to the number of active VDN calls. The number of active calls is referred to as “counted-calls” in the vector step.
ACW	See <i>After Call Work</i> .
Add	A CMS Action that adds the data entered in the given window to the database.
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 call in ACW. With Generic 1 and Generic 3, ACW is accessible by a button on the agent's set and may not be related to an ACD call.
Agent	A person who answers calls to an extension in 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/System 85) or a 1- to 9-digit number (Generic 1/Generic 3) entered by an ACD agent from a voice terminal to activate the agent position. Agent logins are required for all CMS-measured ACD agents.
Agent Occupancy	The average 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 (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 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 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 four 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 also <i>Primary Skill</i> and <i>Secondary Skill</i> .

Agent State	A feature of agent call handling. Agent states are the different call work modes 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 activate traces for a maximum of 25 agents at any one time. You can select the dates in which the trace will receive information. 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 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. Automatic Call Distribution (ACD) is software that channels high-volume incoming call traffic to agent groups (splits or skills).

Also an agent state where the extension is engaged in an ACD call (with the agent either talking to the caller or the call waiting on hold).

See also *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 number.

AUX

See *Auxiliary Work*.

Auxiliary Work (AUX)

An agent state. 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.

AVAIL

See *Available*.

Available (AVAIL)

An agent state. The extension is able to accept an ACD call.

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 in queue before connecting to an agent. ASA is usually an objective set by your call center's management.

The 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 and the time ringing an agent.

Interval ASA has been used for BCMS and pre-R3V4 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. Rolling ASA is used, beginning with R3V4 CMS, for vector routing. Rolling ASA is a running weighted average calculation without regard to any interval boundaries. Rolling ASA is calculated on the G3V4 switch and sent to R3V4 CMS.

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)	A smaller call center operation (fewer than 200 agents) that has the same basic MIS reporting capabilities as larger systems. A call center that allows <i>DEFINITY</i> [®] Generic 3 ACD call data to be collected and processed within the switch; an adjunct processor is not required to produce BCMS reports.
BCMS	See <i>Basic Call Management System</i> .
BRI	See <i>Basic Rate Interface</i> .
Calculation	A menu selection in the CMS Dictionary subsystem which gives the abbreviated name (calculation name) for the 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 Management System (CMS)	A software product used by business customers that have AT&T telecommunications switches and receive a large volume of telephone calls that are processed through the Automatic Call Distribution (ACD) feature of the switch. The CMS collects call-traffic data, formats management reports, and provides an administrative interface to the ACD feature in the switch.
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.
Call Vectoring	A switch feature that provides a highly flexible method for processing ACD calls. Similar to a computer program, a call vector is a set of instructions that controls the routing of incoming 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 makes sure that during or after the call, the agent can enter a string of digits and send them to the <i>DEFINITY</i> Call Management System for management reporting.
Caller Needs	The reason(s) a customer calls your call center (used with the Expert Agent Selection feature).
Calls Carried	Trunk data. The number of inbound/outbound calls carried.
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 have changed color or intensity indicating that the data being displayed met your defined first threshold limit, or the bars have changed from the Warning condition back to the Caution condition.
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. The Change Agent Skills Window allows the user to change the skill assignments for one agent. Through this window a user can quickly see what skills are currently assigned to an agent and the user can easily change the agent's skill assignment. 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.
CO	See <i>Central Office</i> .
CMS	See <i>Call Management System</i> .
CMS Large	One of two hardware configurations for the CMS product line. This configuration has 64MB RAM, a 3GB hard disk, and one processor.
CMS Options	The optional features available with CMS. CMS options include graphics, forecast, and vectoring.

* Microsoft is a registered trademark of Microsoft Corp.

† Windows is a trademark of Microsoft Corp.

CMS QL	A relation database management system used to organize most of the CMS data. CMS QL is used in place of <i>INFORMIX</i> [*] SQL.
CMS X-Large	One of two hardware configurations for the CMS product line. This configuration has 128MB RAM, a 3GB hard disk, two processors.
Configuration	The way that the computer is set up to allow for particular uses or situations. (Mention ATT-OMS, DOSS, and OMNI Configurators.)
CONN	See <i>Connected</i> .
Connected (CONN)	A trunk state. A caller and an agent are connected on an ACD call.
Connected Call	A non-ACD call is considered to be connected to an extension (not a VDN or direct agent) when the call rings at the station and the caller does not abandon.
Continue	A CMS action that resumes the suspended Restore or Migration operation.
CONVERSANT	<i>CONVERSANT</i> [®] is a powerful system which interfaces 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 action that displays data from the current interval.
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.
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 AT&T 585-215-802, <i>Call Management System R3V4 Custom Reports</i> , document for more information.
Customer	The individual installing <i>CentreVu</i> .
CWC	See <i>Call Work Code</i> .

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

DABN	See <i>Direct Abandon</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. If you turn off data collection, CMS will not void data on current call activity.
Data Collection On	CMS is collecting ACD data.
Data Points	Dates of historical data. 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 or range of dates 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.
Default Skill (Generic 2.2 with EAS)	Every skill that ends with a "0" is called a default skill, since every 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.
Dialed Number Identification Service (DNIS)	An ACD capability that enables calls to be routed based on the number dialed by the caller (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.
DID	See <i>Direct Inward Dialing</i> .
Dimmed	Unavailable or disabled. A dimmed menu item, button, or command is displayed in a lighter shade than the standard display and cannot be selected. See also <i>Grayed Out</i> .
Direct Abandon (DABN)	A trunk state. The caller abandoned the call, and the trunk quickly goes to idle.
Direct Agent ACD (DACD)	An agent state. The agent is on a direct agent ACD call.
Direct Agent ACW (DACW)	An agent state. 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 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 Inward Dialing (DID)	An incoming trunk used for dialing directly from the public network into a communications system without help from the attendant.
DNIS	See <i>Dialed Number Identification Service</i> .

EAD	See <i>Expert Agent Distribution</i> .
EAS	See <i>Expert Agent Selection</i> .
Entity	A generic term that refers to one of the following: Agent, Agent Group, Split/Skill, Trunk, Trunk Group, VDN, Vector, or Call Work Code.
Error Message	A response from a program indicating that a problem has arisen or something unexpected has happened, requiring your attention.
EWT	See <i>Expected Wait Time</i> .
Exception	A type of activity on the ACD which falls outside of the limits you have defined. An exceptional condition is defined in the CMS Exceptions subsystem, and usually indicates abnormal or unacceptable performance on the ACD (by agents, splits/skills, VDNs, vectors, trunks, or trunk groups).
Exception Reports	Display occurrences of unusual call-handling events.
Expected Delay	See <i>Expected Wait Time</i> .
Expected Wait Time (EWT)	Also referred to as <i>expected delay</i>. An estimate of how long a caller will have to wait to be served by a Call Center while in queue considering the current and past traffic, handling time, and staffing conditions. Time spent in vector processing before being queued and the time spent ringing an agent with manual answering operation is not included in the EWT prediction. With the G3V4 and R3V4 CMS, the EWT is a switch-based calculation.
Expert Agent Distribution (EAD)	A call queued for a skill will go to the most idle agent (primary skill agent). Agents who are idle and have secondary agent skills will receive the call queued for a skill if there are no primary agents available.
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. 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. With EAS call distribution is based on skill . You can match the skills required to handle a particular call to an agent who has at least one of the skills that a caller requires.

CMS collects data on skills in the same manner as it collects data on splits. Real-time Agent reports generally indicate which skills the agents have, and in which skill they 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, these include calls an agent makes to set up a conference or transfer.

FBUSY

See *Forced Busy*.

FDISC

See *Forced Disconnect*.

Find One

A CMS action that searches the database for entries that match the input value.

First Threshold

A graph term. The lower limit you enter for a particular condition in a graph report. The bar(s) change color/intensity when the defined limit is met. You are telling the system that when this limit is met, you want to be notified that a Caution condition could exist.

Flexible Routing

An ACD capability that allows customers to choose how incoming calls should be routed to agents within a split. Calls can be routed to the first available agent or to the most idle agent.

Forced Busy (FBUSY)

A trunk state. The caller receives a forced busy signal.

Forced Disconnect (FDISC)

A trunk state. The caller receives a forced disconnect.

Forced Multiple Call Handling (FMCH)

A feature available with G3V4 or later switches 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.

Get Contents

A CMS action that provides access to the members of an agent group.

Graphics	A CMS reporting option that allows you to view some reports in bar graph format.
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 also <i>Dimmed</i>.
Historical Database	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 for each CMS-measured agent, split/skill, trunk, trunk group, vector, and VDN.
Historical Reports	Display past ACD data for various agent, split/skill, trunk, trunk group, vector, or VDN activities. A report summary of call data into daily, weekly or monthly totals.
HOLD	A trunk state. The agent has put the call on this trunk on hold.
ICM	See <i>Inbound Call Management</i> .
IDLE	A trunk state. The trunk is not in use.
II	See <i>Information Indicator</i> .
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 data.
INFORMIX SQL	The interactive interface typically used to view the <i>INFORMIX</i> database. For CMS purposes, CMS QL is used instead 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 <code>Split</code> are integers from 1 through 255 (Generic 3r Version 2 or later) 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. This system may someday replace our existing telephone lines.

Interval-Based Items	A category of database items. These items 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).
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.
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 agent's to log in at any available set. 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" or "AI" button is lit, the agent is available to take a call in any assigned skills. 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 trace work mode. An agent is logged out and not available to take ACD calls.
LOGON	An agent trace work mode. An agent is logged in and available to take ACD calls.

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. The trunk is maintenance busy, that is, out of service for maintenance purposes.
Manual In (MI)	An ACD work mode. MI 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 CMS for collection of data. If the ACD element is not measured, 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. Messages 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, as a result of executing 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)	An ACD distribution method that maintains a queue of idle agents. An agent is put at the end of the list for a particular split when the agent completes an ACD call for that split. The agent continues to advance in the list as long as the agent remains staffed and in ACW, available, or on AUXIN/OUT extension calls from the available state. In G3V2, if the agent is in ACW or is on an AUXIN/OUT extension call from the available state then the agent is marked as unavailable to take an ACD call but remains in the list, moving up. An agent in the AUX mode (either by pressing the AUX button or by logging in) is not in the list of eligible agents. Agents in multiple splits/skills are in multiple “eligible agent” lists, one list for each split/skill. An agent who is in ACW, on an AUXIN/OUT extension call from the AVAIL state, or on an ACD call for another split/skill, continues to move up the list of eligible agents for other split/skills. With EAS, if there are no calls waiting in queue for an agent’s primary skill(s), the agent is put into the MIA queue for primary and secondary skills, and then receives the next call for any of the skills logged into.
Multi-Agent Skill Change Window	This window allows the user to perform the following administration actions: add one or more agents to a skill; move one or more agents from one skill to another; and remove one or more 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. The agent must put the current call on hold and press AI/MI in order to receive another ACD call.
Multiple Split Queuing	With Call Vectoring, a call can be directed to up to four splits at the same time, with the first agent who is free getting the call.
Multiuser Mode	Any administered CMS user can log into CMS. Data continues to be collected if data collection is “on.”
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 (disabled)	A CMS action that is not available because a “Find One” has not been executed.

Next (enabled)	A CMS action that displays the next match found.
Night Service	A switch capability that assists calls that come in after business hours or on weekends to be automatically rerouted to a split or an announcement 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. The bars in the graph report are within your defined acceptable limits.
OCM	See <i>Outbound Call Management</i> .
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. The agent is working on a direct agent call, working on a call for another split or skill, or has put a call on hold and has not chosen another work mode.
PEC	See <i>Price Element Code</i> .
Percent (%) Within Service Level	The percentage of calls that you are expecting or targeting to be answered by an agent within a specific number of seconds.
Previous	A CMS action that displays data from the previous interval.
Previous (enabled)	A CMS action that displays the previous match found.
Previous (disabled)	A CMS action that is not available because a "Find One" has not been executed.
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 AT&T has assigned to each deliverable part.
Primary Skill	The skills assigned to an agent. Primary skills are the areas in which the agent has the most expertise. See also <i>Agent Skill</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.
Printer	A physical device that takes electronic signals, interprets them, and prints them on paper.
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. 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> .
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, trunk, trunk group, vector, and Vector Directory Number (VDN).
Real-Time Reports	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 constantly 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

An ACD capability that, in a typical Call Center, if no agent is available to handle a call, the caller hears a recorded announcement and the call is placed in a queue where the caller can hear music or another announcement.

Redirect On No Answer

An ACD capability that assists the user if a call is not answered in a specified number of rings (preset by the Call Center Manager), the terminal extension, including ports with VRUs, is busied out and the call goes back into the queue at top priority.

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 which hardware platform it is being run on.

Release 3 Version 4 (R3V4)

The Call Center 1995 release of the CMS software. R3V4 can refer to *CentreVu* CMS or *CentreVu* Supervisor.

RING

An agent state. The time 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, Load 3.1 or later with the ring state enabled and with Generic 3.*

A trunk state. A call is ringing at the agent's voice terminal.

Rolling ASA

See *Average Speed of Answer (ASA)*.

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 the query results in CMS.

Second Threshold

A graph term. The upper limit you enter for a particular condition in a graph report. When this limit is met, the bar(s) change color/intensity.

	You are telling the system that when this second limit is met, you want to be notified 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. See also <i>Agent Skill</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. A call is using the trunk either incoming or outgoing.
Select Tables	A CMS action allows you to select specific tables to Backup or Restore.
Service Level	A time specified in seconds within which all calls should be answered. Normally set as an objective by management.
Service Observing— Remote Single-User Mode	Only one person can log into CMS. Data collection continues if data collection is “on.” This mode is required to change some CMS administration.
Service Observing— VDNs	A feature available with G3V4 or later switches that gives a voice terminal user the ability to monitor the treatment a call receives as it is processed by a VDN.
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. Agent Skills can be thought of as the ability for an agent with a particular set of skills to handle a call which requires one of those skills. In relationship to your call center, think of skill as a specific customer need/requirement or perhaps a business need of your call center. You will be defining your skills based on the needs of your customers and your call center.
Skill Hunt Group	Calls route to specific skill hunt groups, and 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, Primary	See <i>Primary Skill</i> .
Skill, Secondary	See <i>Secondary Skill</i> .
SLK	See <i>Screen-Labeled Key</i> .
SPARCserver[*] 5	See <i>Sun[†] SPARCserver</i> Computers.
SPARCserver 10	See <i>Sun SPARCserver</i> Computers.
SPARCserver 10	See <i>Sun SPARCserver</i> Computers.
SPARCstation[‡]	A workstation client for the <i>SPARCserver</i> .
Split	A group of extensions that receives special-purpose calls in an efficient, cost-effective manner. Normally, calls to a split arrive primarily over one or a few trunk groups.
Split/Skill ACD Call	A split/skill ACD call is a call that queued to a split/skill and was answered by an agent in that split/skill.
SQL	See <i>INFORMIX Structured Query Language</i> .
Staffed Agent	An agent who is currently logged in to the switch.
Standard Reports	The set of reports that are delivered with the CMS or <i>CentreVu</i> Supervisor software.
StarServer Platform	<i>Intel</i> -based platform.
Station	An unmeasured 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 Bits	The Stop Bits Combo Box allows the user to select the number of stop bits to be used (1, 1.5, or 2) from this box. The default setting will be one stop bit.

* 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.

String Values	The descriptive words that appear on reports dealing with agents, splits/skill, 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 Structured Query Language</i> .
Structured Query Language Criteria	The SQL text box allows the user to type any SQL text. The user can change the selection point by clicking anywhere in the text. They can select text and replace it using the AND or OR buttons.
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 throughout this document.
Sun Microsystems	Manufactures the <i>Sun SPARCserver</i> 5, 10, and 20, the host computer for the CMS High-Performance Platform, and the <i>SPARCstation</i> clients.
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 tool that opens the Form Selector dialog box with the caption, "System Setup." This menu item fills the Form Selector list box with the names of System Setup forms.
Terminal	A combination of monitor (video display) and keyboard used to communicate with a remote computer to type and display information. See also <i>Agent Terminal</i> .
Tertiary Split/Skill	Generic 3 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: • AM/PM format (for example, 7:30AM-5:00PM). • Military 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	An activity task or group of activities tasks (like 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 translations 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)	The most idle agent for the skill will receive the call (if the agent is available).
UNIX[*] System	A multi-user operating system developed by AT&T in 1969. The operating system on the computer on which CMS runs. A user can access the UNIX system from the Commands SLK.
UNKNOWN	An agent state. CMS does not recognize the current state. A trunk state. CMS does not recognize the state of the trunk.
UNSTAF	An agent state. The agent is not logged in and, therefore, is not being tracked by CMS.
Update	To modify a customer's exiting 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.

* UNIX is a registered trademark of Novell, Inc.

Upgrade	Moving 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 CSM 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.
Vector	A list of steps that process calls in a user-defined manner. The steps in a vector can send calls to splits, 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 or when calls arrive over a dial-repeating (DID) trunk group and the final digits match the VDN. 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.
VDN	See <i>Vector Directory Number</i> .
VDN Calls-Counted	Also known as counted-calls to VDN and active VDN calls. 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.

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

Up to three skill(s) 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,” or “3rd.”

A prioritized list of agent skills administered for a VDN that are required or preferred for the answering agent. VDN Skill Preferences represent the requirement that a call be routed to an ACD agent with a particular ability or set of abilities.

VOA

See *VDN of Origin Announcement*.

Voice Terminal

A telephone set, usually with buttons, that gives an agent some control over the way calls are handled.

VRU

See *Voice Response Unit*.

Warning Condition

A graph term. The bars in the graph report have changed color or intensity indicating that the data being displayed met your defined second threshold limit.

Weekly Data

Daily data that have 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.

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