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Call Management System Release 3.0

Administration

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Acknowledgment

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Introduction

1

Description of CMS

The Release 3 Call Management System (R3 CMS) is a software product used by business customers 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 R3 CMS collects call-traffic data, formats management reports, and provides an administrative interface to the ACD feature in the switch.

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

⇒ NOTE:

Read this chapter and Chapter 2, "User Basics," to familiarize yourself with the R3 CMS user interface and the basic procedures. If you are unfamiliar with the Automatic Call Distribution (ACD) feature, see Appendix D, "ACD Basics."

CMS interfaces with the UNIX operating system of the R3 CMS supported computer and uses several UNIX system utilities to communicate with terminals and printers, log errors, execute processes, and so forth. CMS works with the INFORMIX* database management system which provides an interface to the CMS historical database.

* Registered trademark of Informix Software, Inc.

The R3 CMS software can run on the following 3B computers: 522, 622, and 1000/70; and the 6386 Work Group Station (WGS) Model 25S and the 6386 WGS Model 33S computers. These computers connect to the following AT&T switches:

- DEFINITY Communications System, Generic 3i and 3r (These switches will be referred to as Generic 3 throughout this document unless an area applies to one switch in particular.)
- DEFINITY Communications System, Generic 1 all versions (hereafter referred to as Generic 1)
- DEFINITY Communications System, Generic 2 all versions (hereafter referred to as Generic 2)
- System 85, Release 2, Version 4 (R2V4).

ACD Administration

Your switch administrator can specifically add or remove measured splits from your system, add announcements, add agents to the system, terminate trunk groups to splits, and specify that they be measured (see Appendix D, "ACD Basics").

⇒ NOTE:

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

R3 CMS Vectoring Feature

The R3 CMS software also provides an administration interface to the Call Vectoring feature that is available with the Generic 2, System 85 Release 2 Version 4 (R2V4), and Generic 3 switches. Call Vectoring is a flexible and sophisticated way of routing and processing incoming calls to the switch.

The R3 CMS Vectoring feature allows you to create, copy, and edit Call Vectors (vector tables). Call Vectors are user-definable, multistep routing tables. These programmable call vectors direct calls to specified on-network or off-network destinations, to queues in ACD splits, or to treatments such as forced first announcements, multiple recorded announcements, forced disconnect, forced busy, or delay.

On both the switch and CMS, the Call Vectoring feature is a separately purchased feature. A description of Generic 3 Vectoring is in Appendix B, "Call Vectoring and Related Generic 3 Features" and Generic 2/System 85 vectoring is in Appendix C, "Call Vectoring and Related System 85/Generic 2 Features." All vectoring windows are described in this document.

R3 CMS Graphics Package

Graphics is an optional software package that uses bar graphs to graphically represent real-time or historical data for various agent, split, vector directory number, or system activities such as ACD calls, calls abandoned, average speed of answer, etc. 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 with three levels of color/intensity indicators for normal, caution, and warning situations.

The graph reports are described in Chapter 4, "Real-Time Reports" and in Chapter 5, "Historical Reports."

R3 Forecasting

Forecasting is an optional feature that allows you to generate forecast reports which predict both future call traffic and the resources required to meet call-handling objectives. See Chapter 14, "Forecasting."

Important Terms

Before administering CMS, you need to know the meaning of several terms.

- **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.

- **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).
- **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, trunk, trunk group, vector, and VDN.
- **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.
- **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.
- **Daily Data** — Interval data that has been converted to a 1-day summary.
- **Weekly/Monthly Data** — Daily data that has been converted to a weekly or monthly summary.
- **Real-Time Reports** — Display current ACD call activity on agents, splits, trunks, trunk groups, vectors, and VDNs.
- **Historical Reports** — Display past ACD data for various agent, split, trunk, trunk group, vector, or VDN activities.
- **Exception Reports** — Display occurrences of unusual call-handling events.
- **Forecast Reports** — Display expected call traffic and agent/trunk group requirements for your call center for a particular day or period in the future.
- **Custom Reports** — Real-time or historical reports that have been customized from standard reports or created from scratch. See the *Call Management System Custom Reports* (585-215-513) document for more information.

ACD/CMS Parameters

Table 1-1 shows the maximum values of the Automatic Call Distribution (ACD) parameters supported by the AT&T switches. Table 1-2 shows the maximum values of the ACD parameters supported by CMS.

Table 1-1. ACD Parameters Supported by AT&T Switches

Host Switch	ACD Parameters						
	Splits	Agents	Trunk Groups	Trunks	Vectors	VDNs	Call Arrivals (Per Hour)
Generic 1	99*	400	99	400	n/a	n/a	4,000† or 5,500‡
Generic 3i	99	500	99	400	256	500	7,000
Generic 3r	99	3,000	666	4,000	512	3,000	70,000
System 85 R2V4	60	1,024	18-999**	6,000	128	32,000	25,000 (Vectoring) 32,000 (No Vectoring)
Generic 2.1	60	1,024	18-999**	6,000	128	32,000	25,000 (Vectoring) 32,000 (No Vectoring)
Generic 2.2	60	2,048	18-999**	6,000	128	32,000	25,000 (Vectoring) 32,000 (No Vectoring)

* 99 splits are available only on the Generic 1.1 Load 5.0 PBX. For earlier versions of Generic 1, the number of available splits is 32.

** The switch can have a maximum of 999 trunk groups, but CMS can only measure 238 trunk groups. In addition, to be measured, a trunk group must be assigned a trunk group number from 18 to 255.

† These rates assume an ideal ACD scenario in which incoming ACD calls comprise 100% of call traffic on trunks to the PBX, and the calls are equally divided between two general types of splits, each with the following call flow:

- For the first type of split, calls receive a forced first announcement and are then answered immediately.
- For the second type of split, calls go into queue, where half of the calls receive a first announcement and are then answered immediately, and the other half receive a first announcement, a second announcement, and are then answered immediately.

If other applications or other types of call flow are involved with the PBX, call arrivals will be lower.

‡ The 5,500 call arrival rate on Generic 1 applies **only** to the Generic 1.1 Load 5.0 PBX. For earlier versions of the Generic 1 PBX, the call arrival rate is 4,000.

Table 1-2. ACD Parameters Supported by R3 CMS

Host Switch	ACD Entities Measured by CMS						
	Splits Note 1	Agents	Trunk Groups	Trunks Note 2	Vectors	VDNs	Call Arrivals (Per Hour)
Generic 1.1	99	400	99	200/100	n/a	n/a	5,700
Generic 3i	99	400	99	400/100	256	500	7,000
Generic 3r	99	1,023	255	2,000/100	512	2,000	40,000
System 85 R2V4	60	1,024	238*	2,000/100	128	2,000	25,000 (Vectoring) 32,000 (No Vectoring)
Generic 2.1	60	1,024	238*	2,000/100	128	2,000	25,000 (Vectoring) 32,000 (No Vectoring)
Generic 2.2	60	1,023	238*	2,000/100	511	2,000	25,000 (Vectoring) 32,000 (No Vectoring)
1. In Generic 1 and Generic 3 switches, an agent can be assigned to as many splits as desired. Of those assigned splits, an agent can log into up to three splits at the same time. Each split an agent is assigned to counts as another "agent" regardless of whether the agent is logged into the split(s). For example, if the maximum measured agent capacity for your call center is 400 and each agent is assigned to four splits, the actual agent capacity is reduced to 100 even though each agent can only log into a maximum of three splits each. 2. These numbers are for measured and unmeasured trunks. 100 unmeasured trunks must be set aside for use with transfers, conference calls, and other calls internal to the PBX. * Measured trunk groups must be numbered between 18 and 255.							

⇒ NOTE:

Your switch and CMS will probably be configured differently than the maximum values shown in Tables 1-1 and 1-2. Make note of these differences. You will need your particular CMS values to initially start administering CMS.

How CMS Stores and Tracks ACD Data

How CMS Stores Data

CMS stores the ACD data (Figure 1-1) received from the switch in the Real-Time and Historical database. Within each of these databases, CMS stores the specific ACD data for agents, splits, 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 Storages Interval window in the System Setup subsystem).

The historical database includes tables for the **intrahour historical**, **daily historical**, **weekly historical**, and **monthly historical** data. CMS can store intrahour data for 62 days, daily data for 5 years, and weekly/monthly data for 10 years.

As CMS collects the real-time data from the ACD, the data is stored in the current intrahour interval tables (agent, split, trunk, trunk group, vector, and VDN) until the end of the interval. (An interval can be 15, 30, or 60 minutes.) 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 designed data summarizing time, the historical intrahour data is summarized into daily data. At the end of your designated week (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 started from the daily data for the previous month.

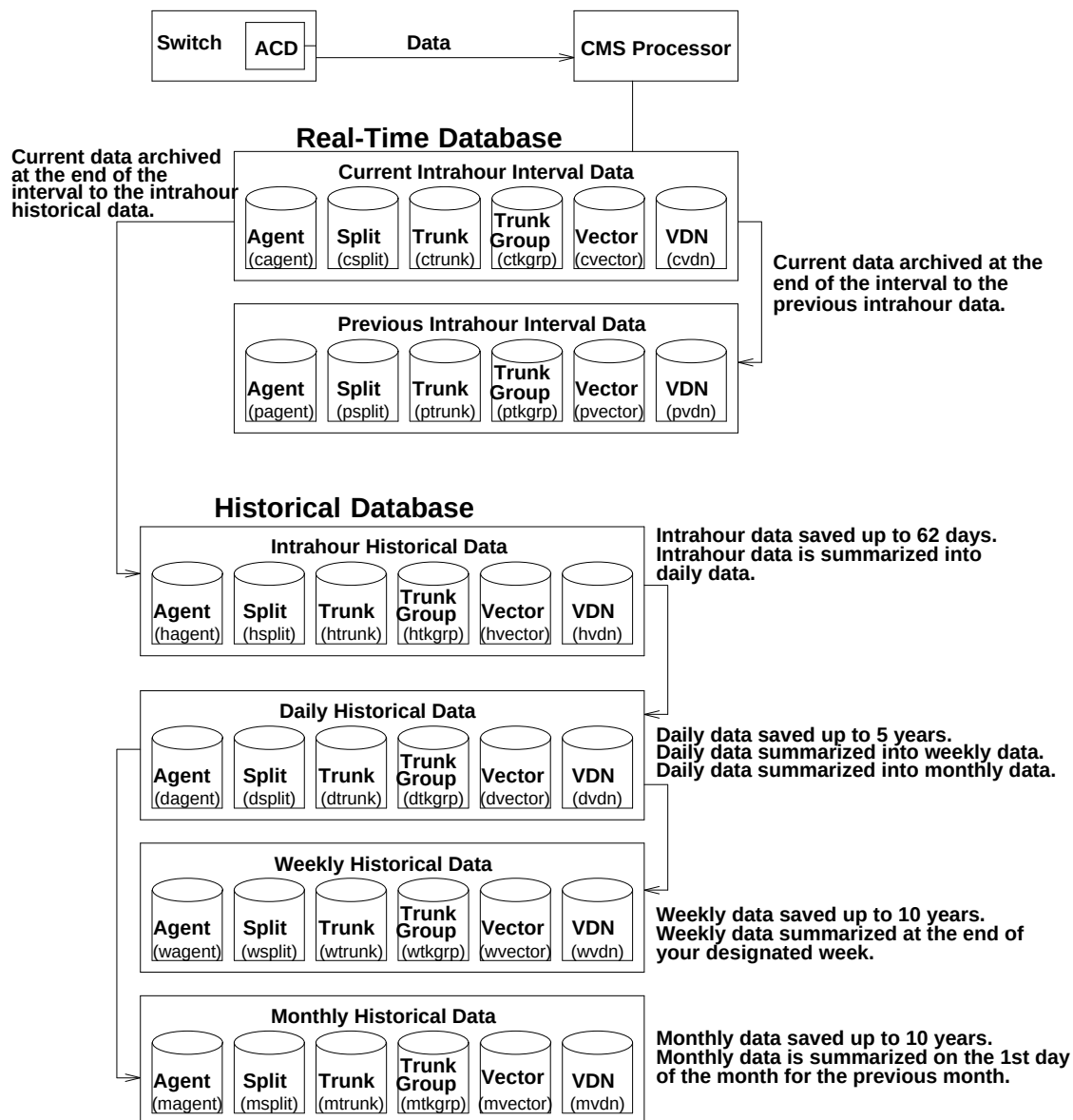
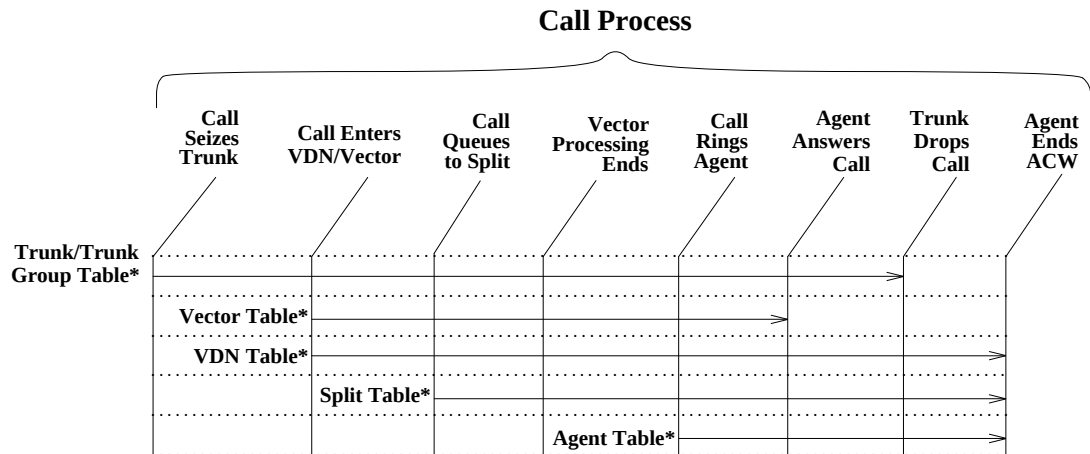


Figure 1-1. How CMS Stores Data

How CMS Tracks ACD Data

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



*The CMS database table that stores the call data. This is also the point at which CMS starts collecting call data, and the arrow is the point at which CMS stops collecting data. Also, with vectoring, the "Stop" command stops vector processing.

Figure 1-2. How CMS Tracks a Call

The agent table starts tracking non-ACD calls when the agent answers or completes dialing.

The split table ends processing when ACW for a completed call ends, the call abandons, or the call leaves the queue and is forwarded to another destination (e.g., intraflow).

Vector processing continues until the caller is answered by an ACD agent, abandons, or routes to a station, trunk, or another VDN or vector. Calls that route to a split do not leave vector processing (Generic 3 only).

VDN processing ends when ACW for a ACD completed call ends, the call abandons, the call routes to a trunk or VDN, or the call is transferred.

CMS User Hardware

Terminals

Display terminals connected to the 3B computer and 6386 WGS can be used to administer the Call Management System. In addition, the UNIX system can be accessed by these terminals. If terminals incompatible with the CMS application are used, if terminals are not properly identified within the CMS environment, or if terminal options are not properly set up, the terminals will not operate correctly. The following terminals have been approved for use with the R3 CMS software application:

- 615 Multitasking Color (CMT) Terminal
- 620 Multitasking Graphics (MTG) Terminal
- 705 Multitasking Terminal
- AT&T 6500 Display Terminals (6528, 6529, 6538, and 6539) with vt220 terminal emulation.
- 605 Business Communications Terminal (BCT)
- 610 BCT
- 615 Multitasking (MT) Terminal
- AT&T DATASPEED* 4425 Terminal



NOTE:

If the screen on a 4425 terminal becomes garbled or confused, redraw the screen by using a **Ctrl** **L** or the Redraw menu selection from the **Window** SLK.

See *Call Management System Installation and Maintenance for 3B Computers* (585-215-111) or the *Call Management System Installation and Maintenance for WGS Computers* (585-215-112) for information about other terminal requirements and for troubleshooting.

*

Registered trademark of AT&T.

Console Terminal

One system terminal should be set up as the Console Terminal.

3B Computer

The console terminal for a 3B computer is installed and wired to allow AT&T Services technicians to remotely log into your system to help diagnose the causes of remote alarms or other troubles. If you are using the console terminal and an AT&T Services technician logs into your system, you may lose control of the computer. Therefore, **it is recommended that the console terminal not be used in normal CMS administration.**

Printers

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

For a complete listing of compatible printers, see the *Call Management System Planning, Configuration, and Implementation* (585-215-611) document.

CMS Main Menu With Subsystem Menus

Reports

- Real-time*
 - Split
 - Status
 - Report
 - Call Profile
 - Agent Report
 - Agent Group Report
 - Queue/Agent Summary
 - Trunk Group Report
 - Event Count Summary
 - Graph
 - Split
 - Queue
 - Split Call Profile
 - VDN Call Profile
 - Vector Report
 - VDN
 - Report
 - Call Profile
- Historical*
 - Agent
 - Summary
 - Split
 - Attendance
 - Group Attendance
 - Login/Logout
 - Trace
 - Event Count
 - Group Summary
 - In/Outbound Call
 - Split
 - Status
 - Report
 - Summary
 - Call Profile
 - Outbound
 - Forecast Summary
 - System
 - System
 - Multi-ACD
 - Multi-ACD by Split
 - Trunk/Trunk Group
 - Trunk
 - Trunk Group
 - Trunk Group Summary
 - Busy Hour
 - Graph
 - Split Call Profile
 - Split Service Level
 - Split Avg Speed Answer
 - VDN Call Profile
 - VDN Service Level
 - Call Work Code
 - VDN
 - Status
 - Report
 - Call Profile
 - Busy Hour
 - Multi-ACD Flow
 - Vector

Dictionary

- Login Identifications
- Agent Groups
- Calculations
- Constants
- Database Items
 - Agent String Values
 - Split String Values
 - Trunk String Values
 - Standard CMS Items
- Custom Items
- ACDs
- Splits
 - Trunk Groups
- Global Search
- Report
- Call Work Codes
- VDNs
- Vectors

Exceptions

- Real-time Exception Log
- Historical Reports
 - Agent Exceptions
 - Split Exceptions
 - Trunk Group Exceptions
 - Vector Exceptions
 - VDN Exceptions
 - Other Exceptions
 - Malicious Call Trace
 - Data Collection
- Administration
 - Agent Exceptions
 - Split Exceptions
 - Trunk Group Exceptions
 - Vector Exceptions
 - VDN Exceptions

Forecasting

- Reports
 - Longterm
 - Financial
 - Current Day
 - Intraday
 - Special Day
 - Agent Positions Required
 - Trunks Required
 - Trunk Performance
- Hypothetical
 - Data
 - Copy Historical Data
 - Edit Values
 - Report
 - Financial Report
- Administration
 - Call Handling Profiles
 - Costs Profiles
 - Trunk Group Profiles
 - Current Day Configuration
 - Special Days
 - Data Storage Allocation
 - Forecast Manager

ACD Administration

- Move Extensions Between Splits
- Trunk Group Assignments
- Split Parameters
- Split Call Profile Setup
- Activate Agent Trace
- Configuration Reports
 - Split Members
 - Trunk Group Members
- Vector
- Call Work Codes
- VDN Assignments
- VDN Call Profile Setup
- Vector Contents
- Split References in Vectors

Custom Reports

- Real-time
- Historical
- Edit Report

User Permissions

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

System Setup

- Switch Setup
- Pseudo-ACD Setup
- Load Pseudo-ACD
- Data Storage Allocation
- Free Space Allocation
- Storage Intervals
- Agent Trace Record Contents
- Main Menu Addition
- CMS State
- Data Collection
- Data Summarizing
- R2 Migrate Data

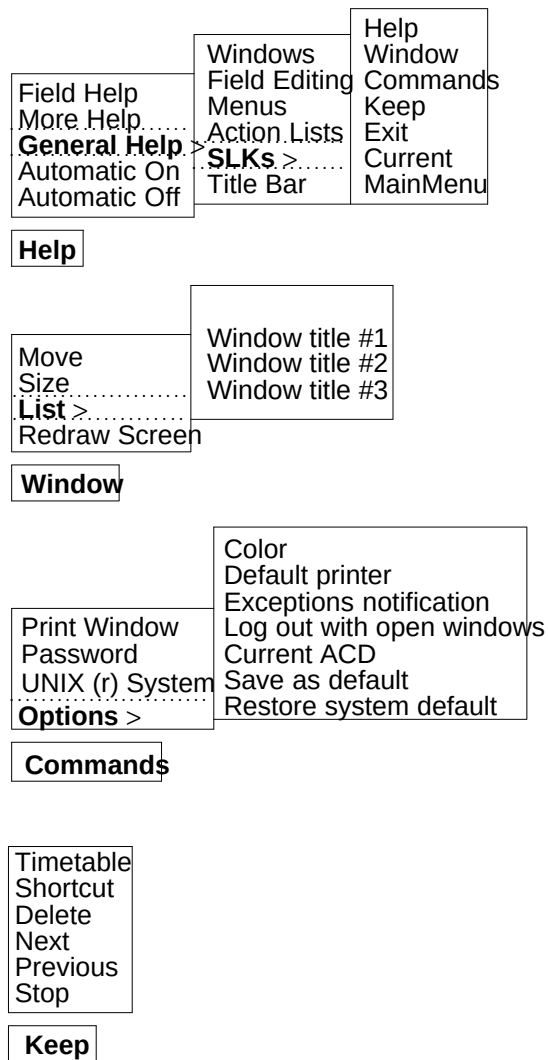
Maintenance

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

** This listing assumes you have purchased the Vectoring, Graphics, and Forecasting features of CMS. **

Screen-Labeled Keys With Menus and Submenus

The following pictorial listing shows the screen-labeled keys with menus and submenus. Descriptions of each SLK appear in Chapter 2, "User Basics." The **Exit**, **Current**, and **MainMenu** SLKs do not have menus.



Helpline/Escalation

Who to Contact

If the problem is with R3 CMS software, call the **AT&T ACD/CMS Help on 1-800-344-9670** to report the problem and obtain a trouble ticket number to escalate the problem through the services organization.

 NOTE:

The ACD/CMS Help number is staffed by trained R3 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.

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 problem as a “R3 Call Management System problem”
- The Installation Location (IL) number

This is 10-digit number from an AT&T database that helps service personnel look up the details of your CMS installation and environment.

- The phone number that off-site technicians can use to remotely dial into your system
- The password for the *root* login ID
- The R3 CMS version (load) number

This number appears in the form of a digit, a decimal point, and another digit, and is pronounced as “x dot x.” For example, 3.0 is pronounced “three dot O” (not zero).

- Your computer model, switch model, and any unique characteristics of your computer-switch environment you think might be relevant.
- The type and symptoms of the problem — describe exactly.
- The type of service contract your organization has with AT&T, if any.

If the trouble report 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.

After the Initial Contact

When you report the trouble to AT&T, you should receive a **trouble-ticket number**. Be sure to get this number from the person you are talking to. Use this number when you talk to an AT&T representative about the problem after the initial report.

According to AT&T's internal rules, the trouble ticket must be *cleared*. This means that *you* must receive notification that the trouble has been cleared up, and agree that it has. If you receive no such notification in a reasonable period, call 1-800-344-9670 again and ask for a resolution on your trouble ticket number.



General Information

The User Basics chapter explains the R3 CMS User Interface and provides you the necessary information for completing any action using this interface. The following information is covered in this chapter.

- Necessary terms for using R3 CMS
- The R3 CMS User Interface
- Special key movement
- 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 your ACD (real or pseudo)
- Saving and restoring default values
- Logging out of CMS
- Logging into CMS.

⇒ NOTE:

It is extremely important that you read this chapter before logging into CMS and trying to complete any task.

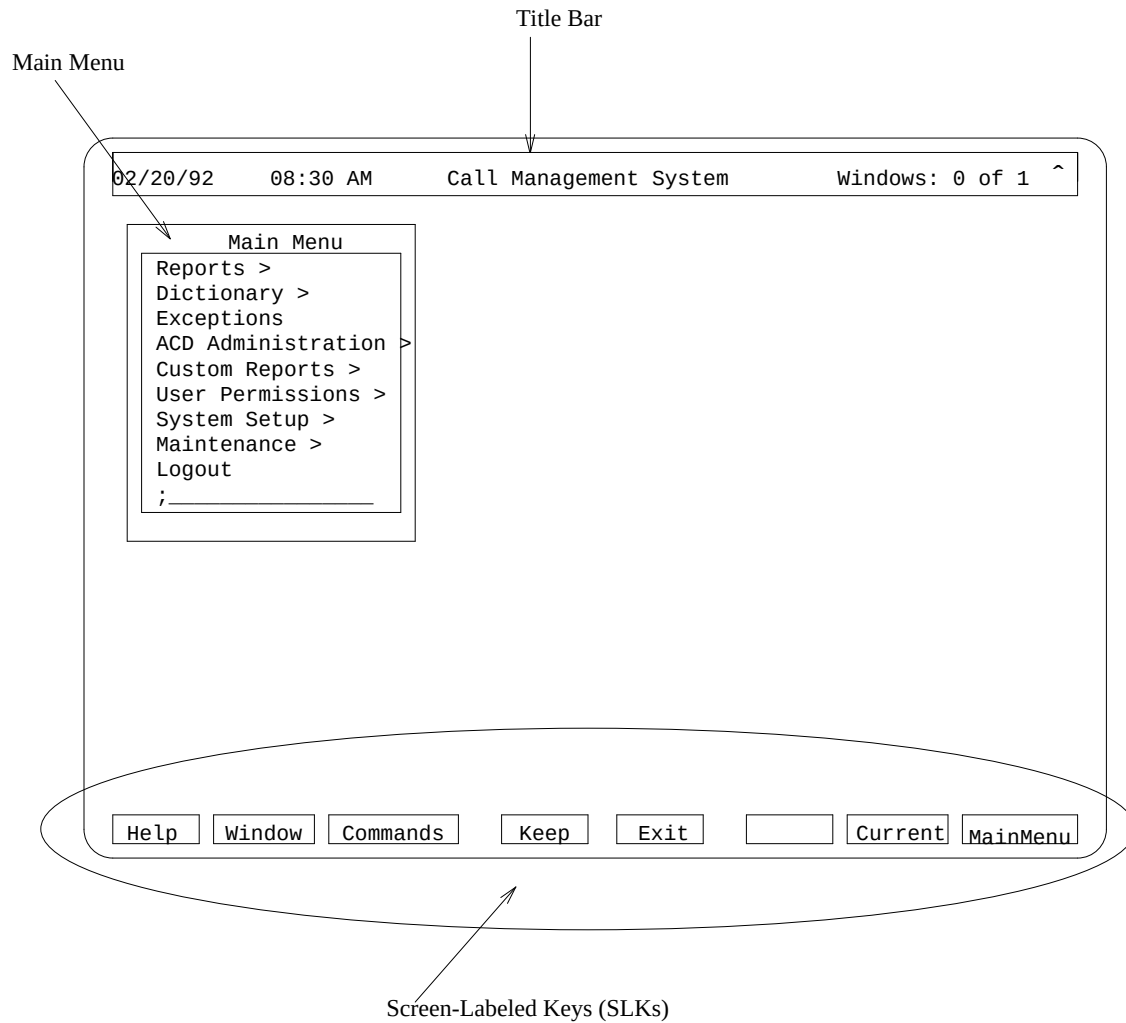
Terms

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

- **Window** — Any rectangle on your screen that encloses a menu, data entry fields, reports, or messages.
- **User Window** — A window you can move, size, or scroll. It may contain input fields, reports, or help information.
- **Current Window** — The user window in which you are currently working.
- **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.
- **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.
- **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.
- **Window Count** — The number of primary windows that can be open at any one time.
- **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.
- **Submenu** — A menu that appears as a result of a menu selection. All menu selections followed by an “>” have submenus.
- **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.
- **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.

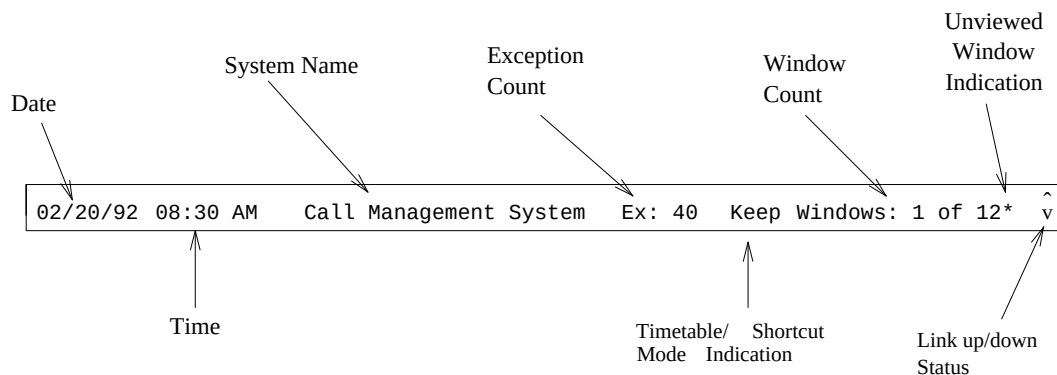
-
- **Acknowledgment** — A window that requires you to confirm an action or to acknowledge a system message (e.g., warning or fatal error for the user window). This window cannot be moved, sized, or scrolled and disappears only when you confirm the message. This window does not count in the user window 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 (e.g., add, modify, delete, etc.). You select an action after entering necessary data in the user window.
 - **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).
 - **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, agent groups, trunk groups, vectors, VDNs).

Basic CMS Screen



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** — CMS time as well as the switch time of the master ACD in hours and minutes. The time is updated every 60 seconds.
- **System Name** — Call Management System
- **Exceptions Count** — The number of current exceptions (See Chapter 8, “Exceptions,” for more information.)
- **Keep** — Only appears when you are creating or editing a timetable or shortcut (i.e., in “Keep” mode). (See Chapter 6, Timetables and Shortcuts, for more information.)
- **Window Count** — The first number is the number of primary windows currently open, and the second number is the maximum number of allowed primary windows for you.



NOTE:

There is a maximum limit of 12 open primary windows at one time. You, as the CMS administrator, can limit the number of windows open at any one time (1 to 12) for each user. See Chapter 10, “User Permissions — User Data,” for more information.

-
- * — An unviewed window indication. An asterisk appears any time a newly opened window is not made current using the **Current** SLK or **Window** SLK — List menu item. The asterisk serves as a reminder that the new window has arrived, but may not be visible.
 - **Link Status** — A “^” displays if data collection is on, and a “v” displays if data collection is turned off or the link is down for some other reason.

Main Menu, Submenus, and SLK Menus

Menu Characteristics

The following items are common for all menus (main menu, submenus, and SLK menus).

- Menus guide you through the Call Management System and cannot be moved, sized, or scrolled.
- An ">" after **any** menu selection indicates another menu (submenu) will appear.
- Some SLK menu items bring up primary windows which count in the user window count and act as any other user window.
- If you turn off read permission (see Chapter 10, "User Permissions") to a particular subsystem for a user, that subsystem will not be shown on the menu for that user.
- Menu selections that do not make sense at the moment (for example, Co`l`or if you are using a monochrome terminal) will be grayed out, and the cursor will jump over these choices.
- Menu selection is not case-sensitive (that is, either upper or lower case will work.)

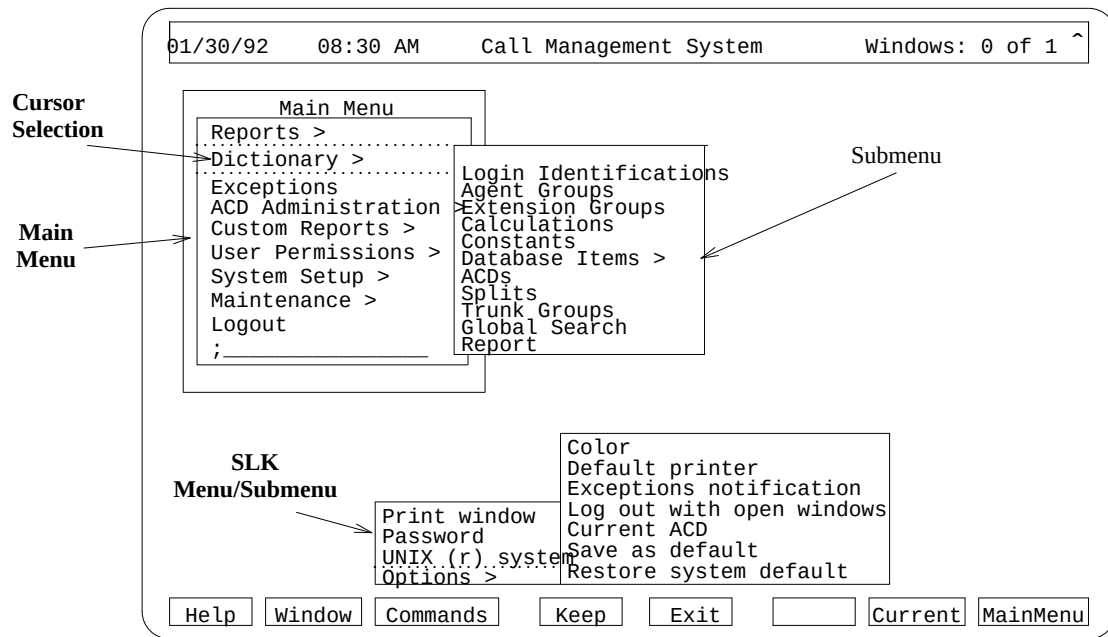


Figure 2-1. Main Menu/Submenu Example

Default Choice for All Menu Items

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

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

Making a Menu Selection

There are three ways you can make a menu selection:

- Typing the first unique letter(s) of the menu item (for example, **D** for Dictionary) and pressing **Return**. Either upper- or lower-case letters will work.



NOTE:

The letter search starts from the next menu item and goes down the menu. If necessary, the search will wrap around to the top of the menu and continue down until a match is found. In this process, the cursor may bounce between similar menu items (for example, Agent Report and Agent Group Report) until a unique letter is identified. If no match is found, you receive a beep. The cursor's position indicates what letter is currently being selected.

- Using the up or down arrow keys to make your selection, and then pressing **Return**, or using the **Tab** or **Shift Tab**.
- Combining both 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 go away.

User Windows

Common Characteristics

Windows with data entry fields and reports and some help windows are user windows. You can move, size, and scroll all user windows (unless there is nothing to scroll).

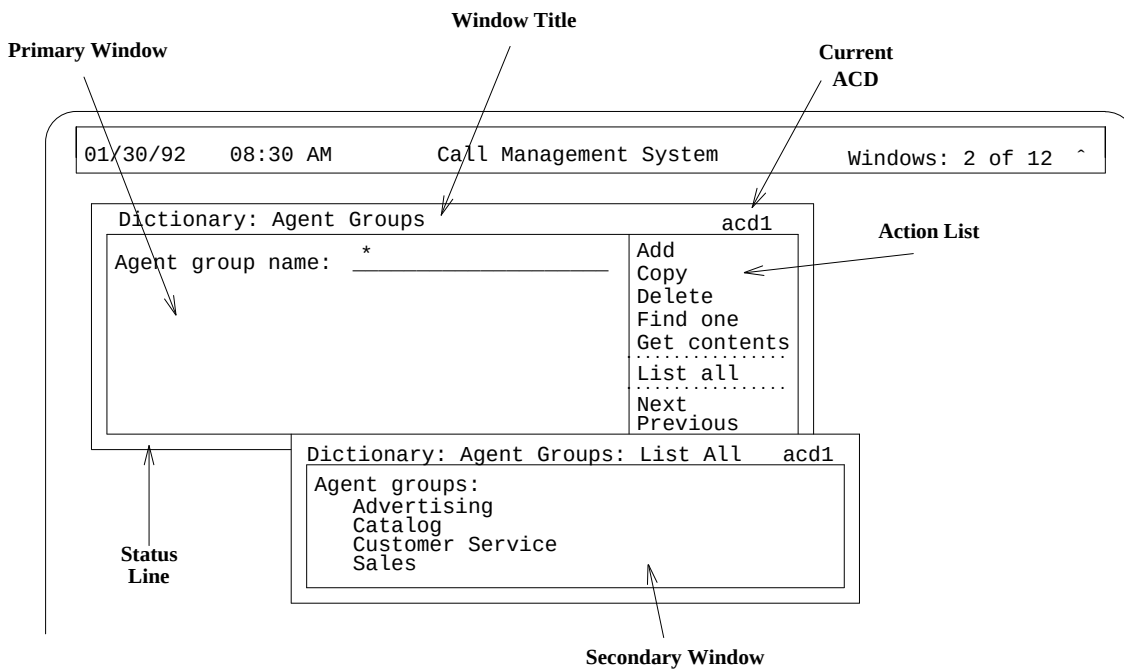


Figure 2-2. User Windows Example

There are two different types of user windows:

- **Primary windows** are used to complete a task and may generate another user window (secondary window). These windows can be moved, sized, or scrolled and count in the user window count. A primary window is generated from a menu selection or an SLK menu selection.
- **Secondary windows** are generated by a primary window and may complete a task. They can be moved, sized, or scrolled but do **not** count in the user window count.

User Window Count

Each CMS user can have up to **12** *open* primary windows at any one time. The number of open windows is administered through User Permissions (see Chapter 10), and the window count is kept on the title bar. If you attempt to exceed your user window limit, an error appears in a Message. You will not be allowed to open more windows until you have closed at least one window.

The number of open user windows directly affects processor resources.

Closing User Windows

User windows remain open until closed by the SLK or by logging out. [The Set destination window, Copy windows in Timetable and Shortcuts, and some custom report user windows close automatically when you select an action item that completes a task. See the CMS Custom Reports (585-215-513) document for the custom report user windows.]

Window Title

The window title indicates which CMS subsystem you are in and the ACD (real or pseudo) to which the window applies. If you make a change in the window, the change will be for the ACD indicated in the window title.

Messages

In conjunction with user windows, Message windows can appear and display information like field help and error messages. Message windows are display-only windows and cannot be moved, sized, or scrolled, 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 window, the error message also disappears.

Acknowledgments

Acknowledge windows also appear in conjunction with user windows to inform you that what you are currently doing is potentially hazardous or to notify you of errors (not field errors). Some acknowledge 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 only require a .

Moving Through CMS

Before you can make any menu selection or enter anything in an input window, you need to know how the special keys work.

Special Keys

Down Arrow	The down arrow moves the cursor down to the next menu item, action list selection, or input field. The down arrow is also used to page or scroll output (like reports), see “Paging and Scrolling Data” after the “Special Keys” description.
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 “Paging and Scrolling Data” after the “Special Keys” description.
Right Arrow	Moves the cursor to the right in an input field and stops when you reach the end of the field. This movement is nondestructive (that is, any information in the field is not changed). The right arrow can also select menu items.
Left Arrow	Moves the cursor to the left in an input field and stops when you reach the beginning of the field. This movement is nondestructive (that is, any information in the field is not changed). The left arrow can also exit submenus.
Tab/Shift Tab	Pressing the Tab key moves the cursor to the next field or menu selection. The Shift plus Tab keys move the cursor to the previous field or menu selection.  NOTE: Not all terminals support Shift plus Tab.
Enter/Return	Pressing the Enter or Return key indicates that you have completed an action (for example, entered data, made a menu selection).

Back Space	The  h or the  key erases the previous character (destructive backward space).
Space Bar	Pressing the Space Bar erases the next character (destructive forward space).

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 will show the next page of data in the direction of the arrow. For example, pressing the down arrow in a list all window will show 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 a "10" followed by the down arrow will scroll the window contents by 10 lines.

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 along with an Acknowledgment when an action request cannot complete.
- **Does not exist** — Displays when a record you are trying to modify or delete is *not* found in the database.
- **Already exists** — Displays when a record you are trying to add *is* 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 which do not exist will be added to the database; the ones which exist will be left unchanged.

-
- **Cancelled** — Displays after an Acknowledgment when you cancel a potentially destructive action.
 - **Inserting** — Displays when a field is being edited using **Ctrl** + **I** to insert characters.
 - **N matches found** — Displays when a Find one action is complete.
 - **N matches found; permitted ones displayed** — Displays after the List all action list item completes to indicate the number of matches found. This message 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 display 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.
 - **Destination is xxxxxxxx** — Displays when you select an input window with the action list item Set dest. "Destination is xxxxxxxx" indicates where the report will display or print when Run is selected.
 - **Updating translations** — Displays when the link to the switch is busied out or released. If this message appears, your real-time reports will not be updating because CMS is in the process of receiving translation data from the switch. Reports will update once the link is up completely.
 - **Data collection off** — Displays when running real-time reports and data collection has been turned off.
 - **Switch link down** — Displays on real-time reports when the link between the switch and CMS is down.

Common Rules for Field Entry Items

When you are entering data into fields, the following rules apply.

- Names (synonyms) must begin with an alphabetic character and are case-sensitive.
- Names may be from 1 to 20 characters (alphanumerics, underscore, blank, comma, period, and plus accepted).
- Field descriptions may be from 1 to 50 characters. All typewriter characters are allowed except the backslash (\), grave accent (`), tilde (~), double quotes ("), pipe symbol (|), asterisk (*), and question mark (?).
- Numeric ranges may be entered by placing a hyphen between entries (for example, Login IDs: 1000-1053), and you may enter a list by separating the individual items with a semicolon (for example, Login IDs: 1002;1100;2022). You can also use a combination of the two types (that is, ranges and lists).

⇒ NOTE:

A numeric range cannot consist of more than 1000 numbers (for example, 1000-1999, 1050-2049, 2000-2999). You will receive an error message if your range is greater than 1000 or you mistakenly leave out a semicolon that separates the range from other list items or ranges.

- 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 number or character that follows the “ac”. You could have several matches, no match, or only one match. If you enter the “*” in the field and nothing else, you will get a list of everything that matches that particular field. (You can also leave the field blank to get a list of everything that matches.)

⇒ NOTE:

You cannot enter patterns in name (synonym) fields, except in the Dictionary subsystem. Name (synonym) fields are designated by “(s).” For example, in a report input window with a Split(s): field, you can enter a list of splits or a range of numeric splits, but you cannot enter **Sa***.

- You must press **Return**, **Enter**, or an SLK before an action will occur.

Field Editing

You can edit a field at any time by using:

- The arrow keys and overtyping.
- The **Back Space** or **Ctrl** h key and overtyping.
- The Space Bar and overtyping.
- **Ctrl** e for inserting text.



NOTE:

To stop your insert, press **Ctrl** e again, or you can use the **Tab** or arrow 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 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.

Moving and sizing can also be canceled prior to completing the move or resizing. You can also cancel block-oriented activities in custom reports. See the *Call Management System Custom Reports* (595-215-513) document for any custom report information.

Searching for an Entry in the CMS Database

From the action list, you can select **Find one** or **List all**. **Find one** searches the database and displays the first occurrence that matches the searched field(s). You can then use **Next** and **Previous** to view all the other matches, one at a time. **List all** brings up a secondary window that displays all occurrences that match on the searched field(s).

⇒ NOTE:

CMS searches the database for anything that matches any entries left in the fields on the window. If you do a **List all**, CMS will find only the items that match what was left in the fields and then displays those items in the **List all** window. Therefore, if you wanted a list of all splits and left the name of split 1 in the name field on the window, you will only get split 1 displayed in the **List all** window. If you want to search on all fields in a window, use **Ctrl Z** to clear all fields. Then select **Find one** or **List all** to display all matches.

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 number of characters that follows the “ac”. You could have several matches, no match, or only one match. If you enter the “*” in the field and nothing else, you will 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 (synonym) fields are designated by “(s).” For example, in a report input window with a **Split(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 a 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 are attached to the inside upper right corner of user windows in a menu format. 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 CMS. A few windows have unique action items, and the procedures for those action items are described with those particular windows.

⇒ NOTE:

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 will be 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, `Already exists` displays on the status line.
- **Delete** — Removes the entry on the current user window from the database. If the database entry does not exist, `Does not exist` displays on the status line.
- **Find one** — Searches the database for an entry that matches 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 partial strings (that is, if you know your field entry begins with the letters "ac", you can enter "ac*" in a field and select **Find one**). You cannot use an * or ? in synonym fields marked with (s), for example, `Split(s)`. **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, leave all fields blank.

- **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 will 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** — Run the process (for example, report) for the current window.
- **Set dest** — Allows you to select the destination where you want your report sent (that is, terminal, printer, or file).

Making an Action List Selection

- 1 After completing all required field entry items, press **Return**. → *The cursor automatically moves to the action list.*
- 2 Type 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 your selection.
- 3 Then press **Return** to make your action list selection. → *Appropriate status line messages appear, and the cursor returns to its previous location in an input field.*



NOTE:

Use the left arrow to return to field entry items at any time without selecting an action.

Adding an Entry to CMS

- 1 Make a selection from the 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 appears.*
- 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 CMS database.*

⇒ NOTE:

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

Deleting an Entry From CMS



CAUTION:

You may delete records in the database using pattern searching; but if you do, an Acknowledgment will appear warning you that more than one record may be deleted if you continue. The Acknowledgment allows you to back out without deleting the records.

- 1 Make a selection from the 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 appears.*
- 2 Enter the appropriate data in the input field(s) on the user window.



NOTE:

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 appears on the status line until the action completes. Then Successful appears to indicate that the information has been deleted from the CMS database.*



NOTE:

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

Finding One CMS Database Entry

⇒ NOTE:

With **Find one**, 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 consist of more than a 1000 numbers at one time (for example, 1000-1999, 1050-2049, 2000-2999).

- 1 Make a selection from the 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 appears.*
- 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 appears on the status line until the action completes. Data from the first entry that matched will be displayed in the fields, and the total number of entries that matched will be displayed in the status line.*

Finding the “Next” 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 will still be grayed out.

If the search is on the last match and you select Next again, Next will start over with the first match found.

- 1 After completing a Find one, press Return. → Cursor moves to the action list.
- 2 Press **N** to move your cursor to Next on the action list, and press Return again. → *Working appears on the status line until the action completes, then Successful appears. The next match found appears in the input fields.*

Finding the “Previous” CMS Database Entry

⇒ NOTE:

Previous is greyed out until you do a **Find one**.

If you do a **Find one** that found only one match, **Previous** is still grayed out.

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

- 1 After completing a **Find one**, **Next**, or **Previous**, press Return. → 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 appears in the input fields.*

Listing All CMS Database Entries

⇒ NOTE:

With `List all`, CMS searches for records that match the data entered in all fields. With searching, fields left blank match everything in the database table.

- 1 Make a selection from the 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 appears.*
- 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 appears with the List all information.*

⇒ NOTE:

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

Modifying a CMS Entry



CAUTION:

You may modify records in the database using pattern searching; but if you do, an Acknowledgment will appear warning you that more than one record may be changed if you continue. The Acknowledgment allows you to back out without changing the records. You should do a Find one before making changes.

- 1 Make a selection from the 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 appears.*
- 2 Do a Find one to view values that you want to modify. → *Current window values appear.*
- 3 Enter the appropriate data in the input field(s) on the user window.
- 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 CMS database.*

⇒ NOTE:

If you leave any fields blank with **Modify**, those blank fields will blank out (nullify) the data currently in the database. Therefore, you should do a Find one first to view the data, and then the **Modify**.

⇒ NOTE:

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

Running All Reports

1	Make a selection from the appropriate menu(s).	→	<i>The report input window appears.</i>
2	Enter appropriate data in the report input window, and press Return .	→	<i>Cursor moves to action list.</i>
3	Press R to select Run , and press Return again.	→	<i>Working appears on the status line until the report displays on screen. When the report displays, the input window then disappears, and it will reappear when you exit the report window.</i>

Sending Historical Reports to Alternate Destinations

With all historical reports (including exceptions and configuration), you can select your report destination with Set dest and then Run the report. Your report destination appears on the status line.

⇒ 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 on the status line. Terminal is the default destination.

Select one:	Modify
<x> Terminal	
< > Printer , Printer name _____	
< > File ,	
File name : _____	

1	Make a selection from the Historical reports menu.	→	<i>The report input window appears.</i>
2	Enter the appropriate data in the report input window, and press Return .	→	<i>Cursor moves to the action list.</i>

-
- 3 Select Set dest and press . → *The Set dest window appears.*
 - 4 Enter an "x" next to Printer or File. → *Cursors moves to the input field.*
 - 5 If you selected Printer and want to use a printer other than your default printer, enter the printer name and then press .
If you selected File, enter a file name and then press . 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 UNIX system (/usr/<your login ID>). → *Cursor moves to action list.*
 - 6 Press again to Modify your selection. → *Working appears on the status line until the action completes, then Successful appears.*
The input window then becomes the current window, and the Set destination window disappears.
 - 7 Press again. → *Cursor moves to the action list.*
 - 8 Select Run to print, display, or file the report and press again. → *Working appears on the status line until the action completes. For printed reports, this is when the report has been queued for the printer. It does **not** mean the report has printed.*

Screen-Labeled Keys

The first eight “f” (function) keys at the top of your keyboard correspond to the screen labels (in reverse video) at the bottom of your terminal screen. The screen labels indicate the function each key performs (See Figure 2-3). A description follows for each SLK and its menus.

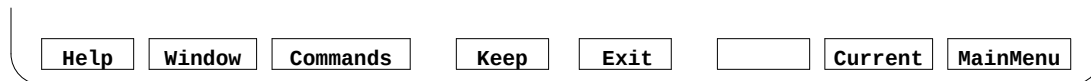


Figure 2-3. CMS Screen-Labeled Keys

Help SLK

The **Help** SLK brings up the Help SLK menu (Figure 2-4) that allows access to the basic CMS user information. For example, if you need help with a particular entry in a field, you can press **Field Help** and get information pertaining to that particular field. If you need help on how to size or move a user window, again you can select the appropriate help menu item and get the information.

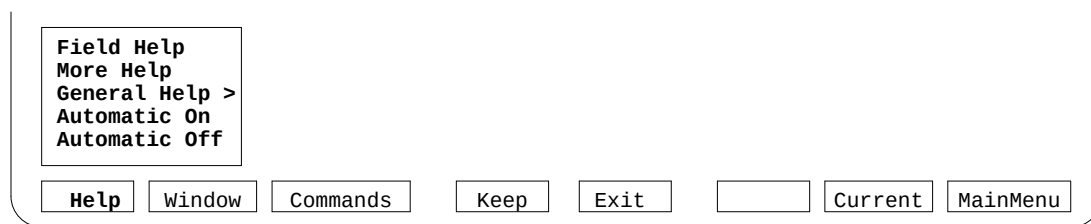


Figure 2-4. Help SLK Menu

Field Help

Field Help messages are available for all data input fields and menu items (except for SLK menus/submenus; General Help provides these). These messages list the valid input information and a short description of the field. 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 will remain and could be overlapped by the new current window.

Using Field Help

To use field help, select `Field Help` from the Help SLK.

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).

Using More Help

To use More help, select More Help from the **Help** SLK.

General Help

The General Help submenu (Figure 2-5) gives information about the 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, and user windows can be moved, sized, and scrolled.

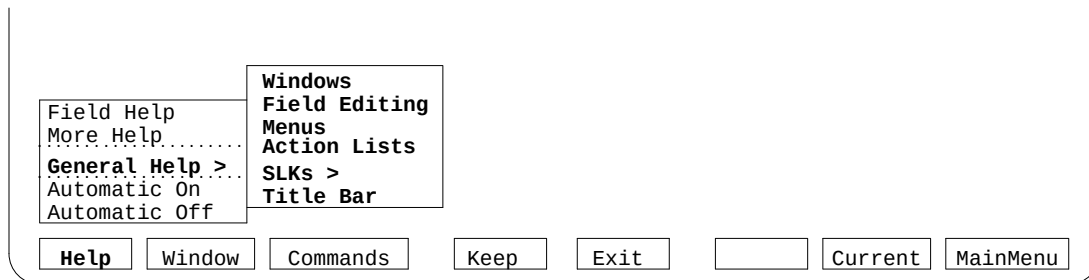


Figure 2-5. Help SLK — General Help Menu

Windows

Provides you with general information on 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

Lists actions that can be performed on user windows.

SLKs >

Tells you how to select screen-labeled keys (SLKs) and briefly what each SLK will do. The SLKs menu (Figure 2-6) follows.

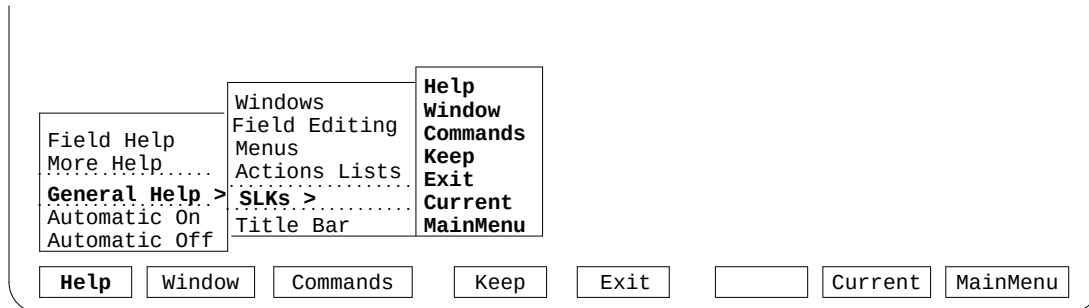


Figure 2-6. Help SLK — SLKs Menu

Title Bar

Gives you information about the content and location of the 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.

Automatic On

Automatic on provides a “Field Help” message for each field or menu item as you step through CMS. Automatic help messages will appear 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. The Window menu (Figure 2-7) follows.



Figure 2-7. Window SLK Menu

Move

This menu item allows you to “move” the current window. You cannot move a window off the screen.

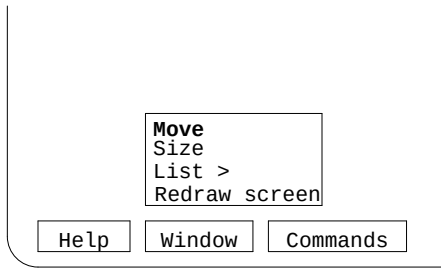
Things to Know About Move

- **Ctrl** plus **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, the SLK will beep. Hit **Return** to complete the move.

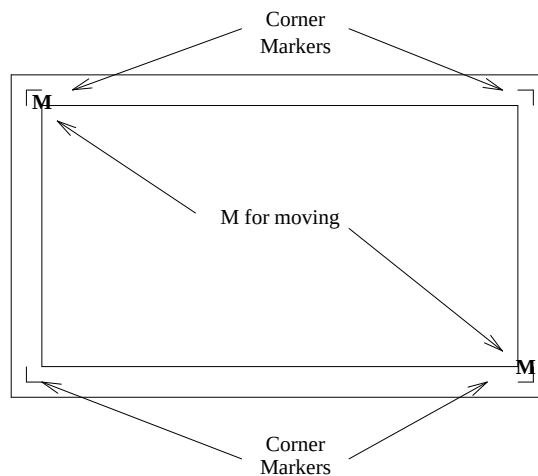
Moving a Window

To move open windows, do the following:

- 1 Press the **Window** SLK. → *The Window menu appears.*



- 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 where you want the window placed, 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 “size” the current window. You can size report windows so that you only see what you are interested in.

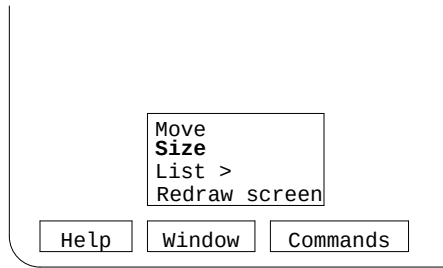
Things to Know About Size

- You cannot size a window smaller than its action list, and you cannot size an input window horizontally (that is, smaller than the default size).
- **Ctrl** plus **C** cancels a move.
- 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 also 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 do select an SLK before completing the size, the SLK will beep. Hit **Return** to complete sizing the window.

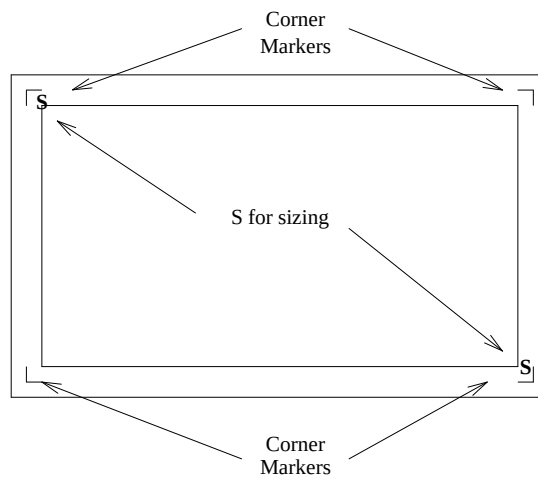
Sizing a Window

To size the current window, do the following:

- 1 Press the **Window** SLK. → *The Window menu appears.*



- 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 your desired size and press **Return**. → *The window moves to the corner markers. The corner markers disappear, 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 will automatically become the current window. Figure 2-8 shows the List menu; the procedures follow Figure 2-8.

Things to Know About List

- 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, you are in the process of bringing up a window and hit 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.

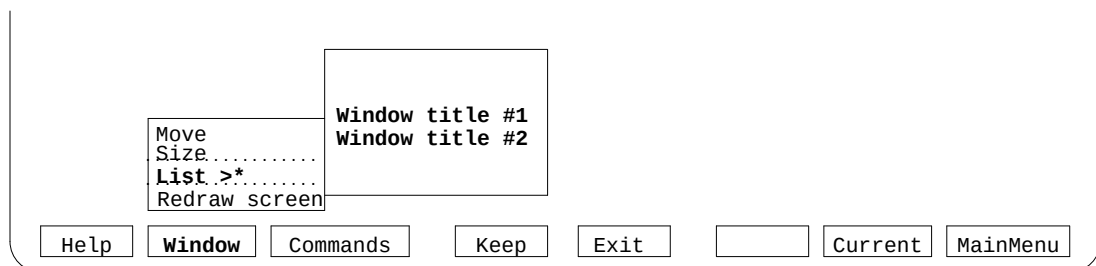


Figure 2-8. Window SLK — List Menu

Listing Open Windows

To list open windows, do the following:

- 1 Press the **Window** SLK. → *The Window menu appears.*
- 2 Select **List** and press **Return**. → *A menu appears 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 appears as the current user window.*

Redraw screen

This selection automatically redraws your terminal's screen. You can do this at any time to refresh the screen. **Ctrl** plus the **L** key can also be used to redraw the screen.

⇒ NOTE:

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

Commands SLK

The **Commands** SLK allows you to print the current window, create and change passwords, access the UNIX 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. The Commands menu (Figure 2-9) follows.

⇒ NOTE:

Access to the UNIX system requires feature permission. This selection will not be displayed if permissions are not granted. See Chapter 10, "User Permissions," for more information on granting user permissions.

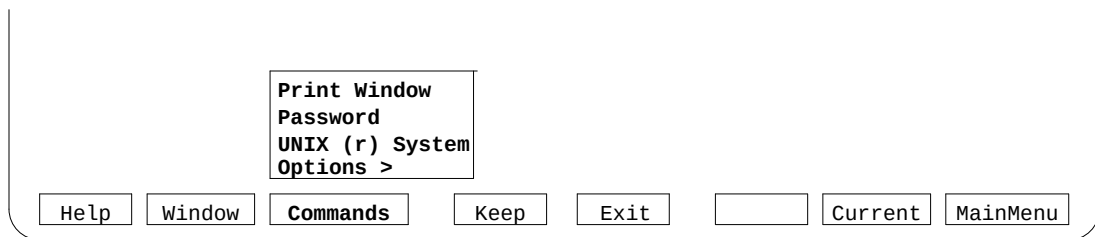


Figure 2-9. Command SLK Menu

Print Window

This selection prints the text and data (not the action list) of the current window including multiple pages if applicable. You cannot print any menu.

⇒ NOTE:

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

Printing a Window

To print an open window, do the following:

- 1 Press the **Commands** SLK. → *The Commands menu appears.*
- 2 Select **Print Window** and press **Return**. → *An appropriate message appears on the status line when printing completes.*

Password

This selection allows you to enter and change **your** password. Changing a forgotten password for a CMS user must be done from the UNIX system. See Chapter 13, “UNIX System — Changing a CMS User’s Password,” for the procedures.

⇒ NOTE:

For system security, passwords are recommended for all 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 appears.*
- 2 Select **Password** and press **Return**. → *The Password screen appears.*
- 3 Follow the directions on the screen.

UNIX (r) System

This selection takes you to a UNIX shell in the UNIX operating system and leaves CMS. The shell takes over the entire screen and keyboard (that is, all windows, SLKs, and the title bar disappear). For the procedures, see “Accessing the UNIX System” in Chapter 13, “UNIX System.”

⇒ NOTE:

To return to CMS from the UNIX system, type `exit` or **Ctrl** **D**.

Options >

From the Options menu (Figure 2-10), you can do any one of the following.

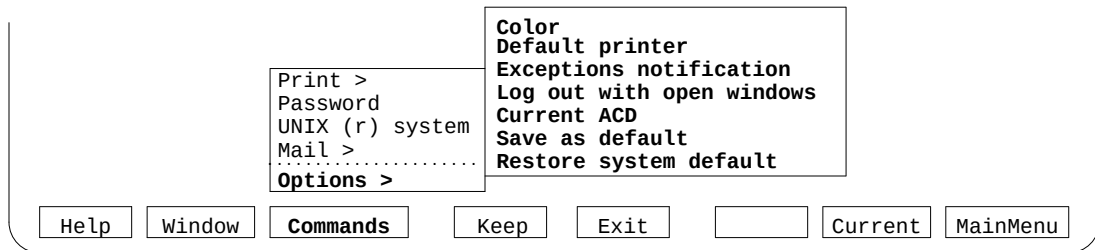


Figure 2-10. Options Menu

Color

From Color, you will be able to 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 color 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 will then have to reopen all previously opened windows to see the new colors.

Default Colors. R3 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

For users with the graphics package, see Chapter 4, “Real-Time Reports — Graph” and Chapter 5, “Historical Reports — Graph” for the default text and background color information.

⇒ 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.

Modifying Your Colors. To modify your colors, complete the following procedures.

- 1 Press the **Commands** SLK. → *The Commands menu appears.*
- 2 Select Options and press **Return**. → *The Options menu appears.*
- 3 Select Color and press **Return**. → *The Color window appears.*

Color		All ACDs	
Input number from the legend below:		Modify	
Menus and user windows:	Text	Background	
Current window border:	—	—	
Other window borders:	—	—	
Title bar:	—	—	
Grayed out:	—	—	
Legend:			
For graphics users:	1		2
Normal bar: _	3		4
Exceeds first threshold: _	5		6
Exceeds second threshold: _	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 selecting the Restore system default option from the **Commands** SLK, Options selection and selecting Modify.

Default printer

At any time, you can change your default printer name and see a list of all available printers. Also, a default printer is assigned when a CMS user is added (see Chapter 10, "User Permissions — User Data" for more information). Your default printer name is displayed in the Default printer name: field input field when you first open the window.

See Chapter 12, "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 appears.*
- 2 Select Options > and press **Return**. → *The Options menu appears.*
- 3 Select Default printer and press **Return**. → *The Default Printer window appears.*

Default Printer	
Default printer name: <u>printer1</u>	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 and return to another open window. → *The Default Printer window disappears.*

Exceptions notification

You can select whether you want your terminal to *beep*, *flash*, *beep and flash*, or *not beep* and *not flash* when you receive an exception. See Chapter 8, “Exceptions — Selecting Your Exception Notification,” for the procedures and more information on exceptions.

Log out with open windows

This option allows you to receive a warning if you try to log out of CMS with open windows.

To be notified if you try to log out of CMS with an open window, complete the following procedures.

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

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**. → *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

At any time, you can change which ACD (real or pseudo) you want to get information on. In most cases, the window you are viewing is for a specific ACD (that is, the current ACD). You may change the ACD you normally track, but only for the current login session.

Changing Your Current ACD.

To change the current ACD, complete the following procedures:

- 1 Press the **Commands** SLK. → *The Commands menu appears.*
- 2 Select Options > and press **Return**. → *The Options menu appears.*
- 3 Select Current ACD and press **Return**. → *The following window appears.*

Current ACD	
Current ACD: <u>Chicago</u>	Find one List ACDs Modify Next Previous

- 4 Enter the ACD name or number you want to modify, and press **Return**. → *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 no open window, the main menu.*

Save as default

This option tells 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 will be displayed. These are saved until you change them or restore the system defaults. The defaults saved are only for your login ID, no one else's ID on the system. Also defaults are not saved unless the values displayed in the window come from CMS and indicate the current values in the CMS database.

Saving Your Default Entries. To save your entries as defaults, complete the following procedures.

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

Restore system default

This option 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, complete the following procedures.

- 1 Press the **Commands** SLK. → *The Commands menu appears.*
- 2 Select Options > and press **Return**. → *The Options menu appears.*
- 3 Select Restore system default and press **Return**. → *The system defaults will now be used and displayed for the current open window.*

Keep SLK

From the **Keep** SLK menu (Figure 2-12), you can create, modify, view, or delete timetables and shortcuts.

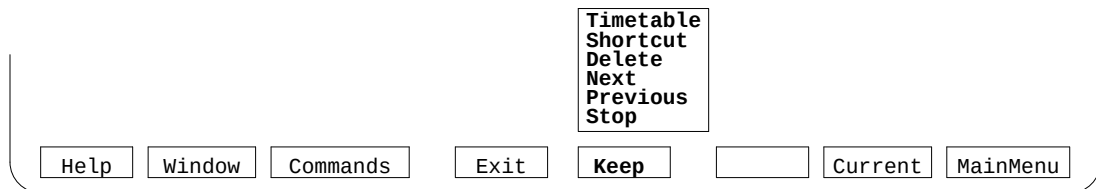


Figure 2-11. Keep SLK Menu

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) on a timetable.

A **task** is a combination of inputs on a user window (like a report input window) and the completed action list selection (Add, Modify, Delete, Run, Set dest, or List all) which, when executed, performs an operation (for example, filling in a report input window and then running the report).

See Chapter 6, “Timetables and Shortcuts,” for more information.

Shortcut

A shortcut is a series of tasks saved by 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 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 6, “Timetables and Shortcuts,” for more information and the procedures.

Delete

Removes the timetable or shortcut task currently displayed. You must be in the “Keep” mode (that is, editing or creating a shortcut or timetable). Otherwise, this selection is grayed out.

Next

Displays the next task when viewing the contents of a timetable or shortcut. You must be in the “Keep” mode. Otherwise, this selection is grayed out.

Previous

Displays the previous task when viewing the contents of a timetable or shortcut. You must be in the “Keep” mode. Otherwise, this selection is grayed out.

Stop

Takes you out of the add or edit mode and puts up an acknowledgment window asking you whether to save the changes. You must be in the Keep mode. Otherwise, this selection is grayed out. See Chapter 6, “Timetables and Shortcuts,” for more information.

Exit SLK

The **Exit** SLK works as follows:

- With **user windows**, the **Exit** SLK allows you to close the current window and move to the previously opened window, or if no other windows are open, returns you to the 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.

Current SLK

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

MainMenu SLK

This selection returns you to the CMS Main Menu and leaves the current window open. Any displayed submenus or SLK menus will disappear.

Logging Into CMS

CMS is a menu-driven system that is operated through a series of interactive screens. In order to use the screens to administer CMS, you must first log into the system.

You are given an ID during the initial CMS installation. (Get this information from the "Pre-CMS Login Information Worksheet.")

⇒ NOTE:

If CMS is in the single-user mode and you log out, you must wait at least 10 seconds before trying to log in again.

To log into CMS, do the following:

1. Turn on your terminal or press the **Return** key if your terminal is already on. The following prompt appears:

```
login:
```

-
2. Type your login ID and press **Return**.

password:

- 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.

3. Type your password (it will not appear on the screen) and press **Return** again.

[The following window appears.]

Enter your terminal type (default is xxx):

4. Enter your terminal type. If the default terminal is the kind of terminal you have, hit **Return**.

[You will then see the CMS Main menu.]

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

Logging Out of CMS

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

→ *All windows are closed, and the login prompt appears. If you asked to be notified of open windows when logging out and you have open windows, you will receive an Acknowledgment message that allows you to remain logged in until you close all open windows.*

Getting Started and Using CMS Daily

3

Getting Started

General Information

This chapter will help you become familiar with your call center's objectives if you complete the appropriate worksheets before you log into CMS. This chapter will not tell you how to use your CMS. The information is presented in a step-by-step sequence with worksheets and a checklist to help you through the **beginning** phase of CMS administration, and then onto the daily maintenance and use of CMS.

This chapter also refers you to the appropriate chapter, main menu item, and submenu item when completing any given task.

The information covered includes:

- Information required before you log into CMS
- A "Getting Started Checklist" and worksheets to help you administer the CMS
- Information on generating reports, configuring splits, administering CMS users, and maintaining CMS
- Agent login/logout procedures.

Computer Worksheet

The information from this worksheet will be helpful when you call the ACD/CMS Helpline or for your own routine maintenance.

What kind of computer is running your CMS software?
Where is the computer and system console located?
Have you identified the link cable between the computer and the switch?
What is the serial number on your computer?
Where is the on/off switch on your computer?
What is the dial-up number assigned for off-site technicians to dial into your system?
Does your system have remote alarming?

Switch Worksheet

You will need to coordinate with the switch administrator when new agent sets, splits, trunk groups, vectors, and VDNs are added; you will also need to identify and resolve link down conditions.

Who is the Switch Administrator?
Will you coordinate any changes with the Switch Administrator?

Login/Password Worksheet

After your system has been installed by an AT&T technician, complete the following worksheet before you begin administering CMS. If you have questions, contact the AT&T technician who installed your system and get the needed information.

For system security, **passwords should not be written down.** If they are, put them in a secured area.

The password for the <i>root</i> login ID. (Also passwords for the system login IDs if they were assigned.)	1.	_____
The CMS administrator login ID and password. (This login ID is <i>cms</i> .)	2.	_____
Additional CMS-administrator login IDs and passwords	3.	_____ _____ _____

Split Objectives Worksheet

By answering the following questions, you will have a better idea of your call center's objectives for each split. Copy the worksheets as needed. It is helpful to have this information before using CMS.

1. How many splits were assigned when your CMS was installed?
2. What are the hours each split will take calls?

Split Name/Number	Time	Time	Time
Sales	7 AM - 3 PM	3PM - 11 PM	11 PM - 7 AM

-
3. What are your call center's objectives for each split? Make as many copies as needed.

Split Name/Number _____
Service Level (How quickly should calls be answered?)
What is the Average ACD Talk Time for this split?
What is the Average After Call Work Time for this split?
What is the Abandoned Calls objective for this split?
How many agents will be assigned to this split?

Split Intraflow/Interflow Worksheet

Fill out the following worksheet if your switch is a Generic 2 or System 85 **without** vectoring.

Will intraflow/interflow be set up for splits?
What is your inflow threshold?
What is your outflow threshold?
What is your intraflow type (none, conditional, all)?

Agent Sets/Voice Terminals Worksheet

If you will be responsible for agent voice terminals or training agents to use their voice terminals, this worksheet can be used to gather helpful information.

What types of sets/voice terminals will the agents be using?

(2500 sets, 7303S/7305S, 7406D with/without displays, 7410, 7405D with/without displays, 7407D, 7434 with/without displays, CALLMASTER or BRI terminals (Generic 2 only)).

What ACD buttons were assigned to agent sets (AUTO-IN, MANUAL-IN, AUX-IN, etc.)?

Will agents be using headsets?

Will agents have ACD User Instruction booklets for their agent sets/voice terminals?

Who is responsible for training agents on sets/voice terminals?

Who do agents contact if their agent set is not working?

Split Supervisors Worksheet

Objective	Answer
How many split supervisors will have terminals?	
Do split supervisors have Supervisor Console User Instruction Booklets?	
What kind of terminal training is needed for split supervisors?	
What kind of CMS training is needed for split supervisors? For example, will the split supervisor(s) be: ■ creating shortcuts or timetables? ■ viewing only the reports subsystem? ■ using the dictionary or exceptions subsystem? ■ trained in forecasting? ■ trained as backup CMS administrator(s)?	
Who will train split supervisors on their terminals/CMS?	
Have you filled out the "CMS Split Supervisor Login IDs/Access Permissions/Printer Worksheet"?  NOTE: Before you fill out this worksheet, you will need to know what CMS functions each split supervisor will be performing. This will determine what access permissions you grant each split supervisor. You should be familiar with what functions are performed in each subsystem before granting any permissions.	

CMS Split Supervisor Login IDs/Access Permissions/Printer Worksheet

Split Supervisor Name: _____

CMS User ID: _____

Room Number: _____

Telephone Number: _____

Printer Name: _____

System Access	Read?	Write?

Reports:	_____	_____

Dictionary:	_____	_____

Exceptions:	_____	_____

ACD Administration:	_____	_____

Forecast:	_____	_____

Custom Reports:	_____	_____

User Permissions:	_____	_____

System Setup:	_____	_____

Maintenance:	_____	_____

Timetable:	_____	_____

UNIX System:	_____	_____

Main Menu Addition:	_____	_____

Which Split(s) Access: _____

Which Trunk Groups(s) Access: _____

Which ACD(s) Access: _____

Which VDN(s) Access: _____

Which Vector(s) Access: _____

Trunks and Trunk Groups Worksheet

How many trunk groups were assigned during installation?	
How many trunks were assigned?	
Will all trunk groups be measured by CMS?	
List your measured trunk groups	

VDNs and Vectors Worksheet

**NOTE:**

VDNs and Vectors only apply if you have purchased the CMS Vectoring feature.

How many VDNs were assigned?	
How many Vectors were assigned?	
Who is responsible for designing, programming, and changing vectors?	
Do you have a printout of assigned Vectors?	

Vector Design Worksheet

**NOTE:**

Vectors and VDNs only apply if you have purchased the CMS Vectoring feature.

It is recommended that you create vectors on paper before administering the vectors on your system.

Vector #: _____ **Name:** _____ **Description:** _____

Assigned VDN(s): _____ **Assigned Trunk Group(s):** _____

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Terminals Worksheet

You may be responsible for terminal maintenance, training, or problems. This worksheet can provide some basic information.

How many terminals were administered during installation?
What are your terminal types (i.e., 705MT, 615MT, etc.)?
Who do you contact for terminal problems?
What is the location of each terminal?
Will you be showing split supervisors how to use their terminals?

Printers Worksheet

To print CMS reports and printers, you need to know where the CMS printers are located and how these printers were administered.

How many printers were administered during installation?
What are the printer types and models?
Where are the printers located?
What were the printers named at installation?
Have the printers administered during installation been administered in CMS via the Printer Administration window in the Maintenance subsystem?
Who orders printer supplies?
Who do you contact for printer problems?

Night Service Worksheet

Your call center may require special arrangements for calls after normal working hours. If so, you will need to know what the night service arrangement is for each split.

Split Name/Number	Night Service Arrangement

Split Announcements Worksheet

Split Name/Number _____
How many announcements were assigned to this split?
How long does each announcement last?
What does each announcement say?
If a split has a second delay announcement, does it repeat?
Does your system have music-on-hold?
Who is responsible for recording and changing announcements?
Will an emergency announcement be used?
What will the emergency announcement say?

CMS Agent Login ID/Extension Worksheet

Agent Name	Login ID	Extension

Tape Backups Worksheet

Where are the backup tapes located?
Do you have enough tapes to rotate the tapes daily?
 NOTE: Do not leave the same tape in the machine permanently.

Power Failure Worksheet

You may be responsible for CMS in the event of a power failure. If so, the following worksheet could help you.

Where are the power failure extensions located?
Does your system have an Uninterrupted Power Supply (UPS)? If yes, how long will your system operate without power?
If power fails, what do you do to your system?

Emergency Conditions Worksheet

In an emergency situation, you may be responsible for redirecting CMS calls, recording special announcements, be aware of your call center's special procedures. The following worksheet could help you with this information.

What do you do when the link goes down?
What do you do with CMS if you have a fire drill?
What do you do with CMS if you evacuate the building?
What do you do with CMS if you have unusual weather conditions?
What do you do with CMS if you have any other emergency?
In case of an emergency, will calls be routed to another location?
Will you have an appropriate emergency announcement? What will the announcement say?

Other Items Worksheet

Do you have a printed copy of output* from a command called *df -t*

*The printed output contains the names of disk partitions on which different portions of the UNIX system and CMS files reside. It also contains information on the number of blocks being used and blocks still available in given areas of the UNIX system and CMS file structure. You should keep this information for reference.

Have you determined the refresh rates for terminals?

Have you set realistic exceptions?

Set exceptions that you will act on when CMS notifies you of an exceptional condition.

Has the current interval length been set (15, 30, or 60 minutes)?
(System Setup subsystem — Storage Intervals window)

If you are using Forecasting, have you started the Forecast Manager?

Getting Started Checklist

Use this checklist as a guide when you first use your CMS. This checklist gives you the task to be completed and the appropriate chapter, main menu item, and submenu item to select. The submenu item is in italics.

	Task	Chapter	Main Menu Item and <i>Submenu Item</i>
	1. Have you completed all the appropriate worksheets?	3	
	2. Do you know how to log in?	3	
	3. Have you changed your password?	2	
	4. Is the link between the CMS processor and the switch up?	11	Maintenance <i>Connection Status</i>
	5. Have you verified the number of measured splits, agents, trunks, trunk groups, VDNs, and Vectors?	11	System Setup <i>Free Space Allocation</i>
	6. Did the AT&T technicians back up the UNIX file systems before turning the system over to you?		
	7. Have you assigned agent names to agent login IDs? <i>Using zero-length login IDs (possible for Generic 1 prevents the collection of agent data from the switch.</i>	7	Dictionary
	8. Have you assigned CMS user IDs and access permissions for split supervisors?	10	User Permissions <i>User Data</i> <i>Feature Access</i> <i>Main Menu Access</i> <i>Split Access</i> <i>Trunk Group Access</i> <i>ACD Access</i> <i>VDN Access</i> <i>Vector Access</i>

Getting Started Checklist (Contd)			
	Task	Chapter	Main Menu Item and Submenu Item
	9. Have you made sure your free space parameters match your system design. If disk space is expected to be a problem, consider changing the Data Storage Allocation.	11	System Setup <i>Free Space Allocation</i>
	10. Send a report to each CMS printer to verify that the printer is working. See Chapter 2, "User Basics," for the procedures.	1	
	11. Schedule CMS timetables. <i>Optional:</i> Assign responsibility for manual daily CMS backups.	5	Timetable
	12. Train agents on voice terminal login procedures.	3	
	13. Give agents their assigned login IDs.		
	14. Train split supervisors and other CMS users on CMS.		
	OPTIONAL TASKS		
	15. Schedule an incremental backup.	6	Timetables and Shortcuts
	16. Schedule a full backup.	6	Timetables and Shortcuts
	17. Schedule the daily historical reports.	6	Timetable and Shortcuts
	18. Schedule the weekly/monthly historical reports.	6	Timetable and Shortcuts
	19. Assign names for splits, trunk groups, ACDs, VDNs, and Vectors.	7	Dictionary
	20. Assign agents to Agent Groups.	7	Dictionary
	21. Create desired shortcuts.	6	Timetables and Shortcuts
	22. Define your acceptable service level.	9	ACD Administration <i>VDN Call Profile Setup</i> <i>Split Call Profile Setup</i>

Using CMS Daily

Although CMS is divided into subsystems, you use the subsystems to perform four overall functions:

1. Generating reports from call data collected from your call center's ACD(s)
2. Configuring the splits in your call center
3. Administering the access permissions for CMS users, usually split supervisors or telecommunications managers. Each CMS user must have a login ID and (optionally) a password for increased security.
4. Maintaining the CMS.

Generating Reports

CMS collects data from ACD activity and stores it in one of the 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 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

NOTE:

See the *Call Management System Custom Reports* (585-215-513) document for information on Custom Reports.

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

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

Configuring Splits

Splits, extensions, and trunk groups are initially created and assigned at the switch. However, once they have been created, you can control the configuration of your splits in 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. Note: Not available on Generic 1.	ACD Administration	Trunk Group Assignments
Set up call forwarding (intraflow) from a split to other destinations. Note: Not available on Generic 1 or System 85/Generic 2 with Vectoring.	ACD Administration	Split Parameters
Set up delay times for announcements for calls queued to a split. Note: Not available on Generic 1 or System 85/Generic 2 with Vectoring.	ACD Administration	Split Parameters
Change the number of measured splits. Note: Not available on Generic 1 and Generic 2.2.	Maintenance	ACD Status
Create special reporting groups — Agent Groups that are reported independently of existing split assignments.	Dictionary	Agent Group

Administering CMS Users

CMS provides you with a User Permissions subsystem that you can use to limit access by CMS users 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
Create CMS login IDs	User Data
Set open window limit	User Data
Set minimum refresh rate	User Data
Set read and write permissions for CMS subsystems	Feature Access
Set read/write permissions for splits and exceptions	Split Access
Set read/write permissions for trunk groups and exceptions	Trunk Group Access
Set read/write permissions for ACD access and exceptions	ACD Access
Set read/write permissions for VDN access and exceptions	VDN Access
Set read and write permissions for vector access and exceptions	Vector Access

Maintaining CMS

CMS provides additional tools with which to maintain your system (including tools to protect your data and software). Using the Maintenance subsystem or UNIX system, you can perform the following tasks:

If you want to:	Select Main Menu Item	Then Submenu Item/Window
Create backup copies of CMS data files	Maintenance	Back Up Data
Restore lost CMS data to the system	Maintenance	Restore Data
Create backup copies of CMS software	Commands SLK	UNIX 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	UNIX system

Agent Login/Logout Procedures

Considerations

Agents in a call center handle calls using voice terminals that are connected to the switch. For CMS to record agent activity, agents must log into their voice terminals using login IDs assigned to them by the CMS administrator. The CMS administrator can determine what agent login IDs are available from the Dictionary subsystem. Also in the Dictionary subsystem, the CMS administrator can assign agent names to login IDs.



CAUTION:

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 will keep the intrahour agent table files from becoming overfilled with logout/login pegs, and it will save disk space.

Login Procedures for Generic 2/System 85

To log into an ACD agent position, follow these steps on the voice terminal:

1. Press any idle call-appearance button.
[You will hear a dial tone.]
2. Dial the agent login access code number, or press the LOGIN button. The login access code is available from the switch administrator.
[You will hear a dial tone.]
3. Dial your login identification number twice. Any 4-digit number — where the first digit is not zero — is valid, but the login ID assignment is a CMS responsibility.
[You will hear a confirmation tone if successful, or you will hear an intercept tone if unsuccessful because:]
 - Login ID is not the same both times.
 - Login ID is already in use.
 - Login ID is out of range.
4. Press the appropriate button to disconnect your voice terminal from the line.
[Your position is now in the AUX state.]

Logout Procedures for Generic 2/System 85

To log out from an agent position:

1. Go off-hook on an idle appearance.
[You will hear a dial tone.]
2. Dial the log-out access code (this is also available from switch administration), or press the LOG-OUT button.
[You will hear a confirmation tone. An intercept tone means the position was already logged out.]
3. Press the RELEASE button or go on-hook.
[Your position is now in the UNSTAFFED state.]

Inadvertent logging off could result in unstaffing the position. You could unstaff the position by:

- Pressing the STAFF button
- Dialing the staff access code
- Going on-hook during the AUTOMATIC ANSWERING operation
- Disconnecting the headset during AUTOMATIC ANSWERING operation.

Login Procedures for Generic 1 and Generic 3

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

1. Go off-hook on an idle appearance.
[You will hear a dial tone.]
2. Dial the agent login access code number, or press the LOGIN button. The login access code is available from the switch administrator.
[You will hear a dial tone.]
3. Dial the split number.
4. Dial your login identification number.
[You will hear a confirmation tone.]
 - Any 1- to 9-digit number is valid for CMS. A 0-digit login, which means that no login IDs are required, may be specified at the switch, but CMS will not be able to collect data for these agents.
5. Press the RELEASE button or go on-hook.
[The agent position is now in the AUX state.]

Logout Procedures for Generic 1 and Generic 3

To log out from an agent position:

1. Go off-hook on an idle appearance.
[You will hear a dial tone.]
2. Dial the log-out access code (this is also available from switch administration), or press the LOG-OUT button.
3. Dial the split number.
[You will hear a confirmation tone. The intercept tone means the agent was already logged out.]
4. Press the RELEASE button or go on-hook.
[The agent position is now in the UNSTAFFED state.]

Inadvertent logging off could result in unstaffing the position. You could unstaff the position by:

- Going on-hook during the AUTOMATIC ANSWERING operation
- Unplugging a headset during the AUTOMATIC ANSWERING operation.

Temporarily Leaving a Headset-Equipped Position

If you want to leave your position temporarily, taking your headset with you, follow this procedure.

1. Press AUX WORK.
2. Pull out your headset from the voice terminal.
[This places the position in AUX WORK, and no ACD call 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.

Real-Time Reports

4

General Information

Standard real-time reports:

- Show the current status of ACD activity.
- Display data for the current interval for the various agent, split, 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 11, "System Setup — Storage Intervals.")

⇒ NOTE:

You cannot put a real-time report on a timetable. You can, however, use a shortcut to display a real-time report. For more information and the procedures on shortcuts, see Chapter 6, "Timetables and Shortcuts."

The Vectoring and Graphics reports are included in this chapter. If you do not have the Vectoring feature or Graphics package, those report items will not appear on your menu.

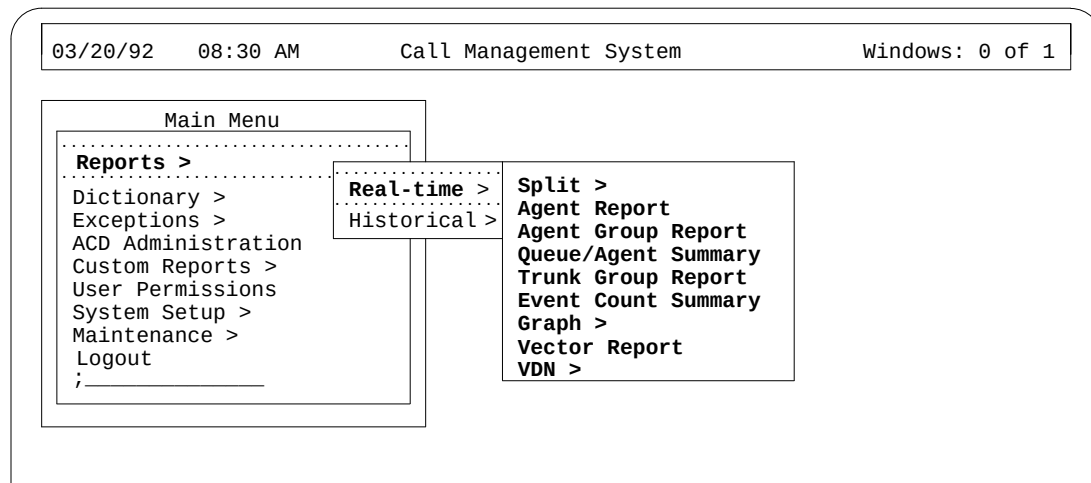


Figure 4-1. Real-Time Reports Menu

Exceptions in Real-Time Reports

An exception is a condition that falls outside of the limits you have defined. When an exception occurs, CMS notifies you in three ways:

- The terminal will beep, flash, or beep and flash at the same time — unless you have disabled both the beep and flash (see Chapter 13, “UNIX System,”). See Chapter 8, “Exceptions — Selecting Your Exception Notification,” to turn on or off the beep and/or flash.
- The Ex field on the CMS title bar will show a running count of current exceptions. Whenever an exception occurs within the current interval, the count will increase by one.

⇒ NOTE:

Exceptions are cleared at the end of your designated interval. The title bar count starts at zero (0) when you log in or change your current ACD. To be notified of exceptions, you must have exception permission turned on for the specific split(s), trunk group(s), ACD(s), VDN(s), and vector(s). You assign exception permissions in the User Permission subsystem. (See Chapter 10, “User Permissions,” for more information.)

Exceptions are entered in the real-time exceptions log. See Chapter 8, “Exceptions,” for more information on the real-time exceptions log.

Refresh Rate in Seconds 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 updates itself to display new data.

Your fastest allowable refresh rate is defined in the User Permissions — User Data window as minimum refresh rate (see Chapter 10, “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. If you want to calculate the shortest refresh rates you can get in CMS real-time reports, see the “Real-Time Refresh Program” section in this Chapter.

The default refresh rate when you bring up the report input window is your minimum refresh rate **plus** 15 seconds.

Real-Time Refresh Program

The Real-Time Refresh program calculates the best (shortest) refresh rates you can get in CMS real-time reports. The program bases its calculations on your computer type, your ACD configuration, and the ways in which you will use CMS reports.

Refresh Program Options

The program gives you two basic options for finding refresh rates:

■ Different periods

The program finds different minimum refresh rates for each type of report. These refresh rates will stabilize use of the computer's central processing unit (CPU), assuming the following things are true:

- The total number of real-time reports that are simultaneously running remains constant
- Each report is running with the minimum refresh rate for its type.

This means that the mix of report types running can change and the minimum refresh rates will still be valid.

For example, the program might determine that you can run any Agent report at a 26-second refresh rate, any Group report at a 45-second refresh rate, and any Split report at a 23-second refresh rate. Then, if the total real-time reports running at any one time is 15, then CMS can maintain these minimum refresh rates if all 15 reports running are Agent reports, if all 15 reports running are Group reports, or if the 15 reports consist of 5 Agent reports, 5 Group reports, and 5 Split reports.

With this option, the program also lets you define refresh rates for a number of **preferential reports** (reports that you want to **refresh more often** than the minimum). The program also asks you to give it a number of **sacrificial reports** (reports that should **refresh less often** than the minimum). The program will then tell you how often each type of preferential report can refresh and how often each type of sacrificial report can refresh.

■ Single period

The program finds one minimum refresh rate that applies to all reports that are running. For this option, you must specify the exact number of reports of each type (that is, how many Agent reports, how many Split reports, how many Vector reports, and so on) you will be running simultaneously. The program then will find a single minimum refresh rate that applies to all the reports, regardless of the type.

For example, the program might determine that if users will be running 30

Agent reports and 30 Split Status reports simultaneously — and **no** others, all reports can refresh at 29 seconds. However, if the mix of reports were to change to 25 Agent reports and 35 Split Status reports, the overall refresh rate would change.

Running the Program

Use the following steps to determine refresh rates using the Real-Time Refresh program.

1. Access the UNIX system via the **Commands** SLK.
2. Type the following command:

```
$ /cms/toolsbin/realtime
```

The following prompt appears:

```
enter customer name, or just  
hit return if it's not known:
```

3. Enter the name under which you would like to store the program output, and press **Return**.

-
4. Continue to enter data according to the program's instructions.
 - You can exit the program at any time by pressing **Delete**.
 - Some questions and prompts require you to enter multiple values. For these questions, always include a space between values. For example, look at the values input in the following illustration:

Enter # of agents, # of splits, and # of VDN's: **200 40 200**
200 agents, 40 splits, 200 VDNs.

Do not add punctuation between values.

- Use **Back Space** to erase characters in a field.
 - If you want to go back to the previous question to change your response, type **-1** in the current field. The previous question will be redisplayed.
 - If you want to find preferential refresh rates, you must enter a decimal (a positive number less than 1) to tell the program how much to improve refresh rates. For example, **.5** would cut a minimum refresh rate of 28 seconds to 14 seconds. **.75** would cut a 28-second refresh rate to 21 seconds.
5. To save output to a file, you must exit the program by answering the final prompts with **n**. The final prompts are:

do you want to change the number of reports? (y or n):
do you want to analyze another case? (y or n):

The final output lists the shortest refresh rates you can get for all reports. The program sends the refresh rate output to a file with the name you entered and the prefix **r.**. The program sends the configuration data you entered to another file with the name you entered and the prefix **c.r.**. If you do not enter a name, the program saves refresh rate output to a file called **refresh** and the configuration output to a file called **c.refresh**.



NOTE:

If you exit the program with , the program will **not** send output to a file.

Printing Output From the Real-Time Refresh Program

Print the refresh rate output with the following command:

```
$ lp refresh  
or  
$ lp r.<filename>
```

Remove the refresh rate output with the following command:

```
$ rm refresh  
or  
$ rm r.<filename>
```

Current Interval

The current interval is a set number of minutes which means that CMS starts collecting ACD event occurrences at the beginning of the interval and continues collecting ACD event occurrences until the end of the interval. When the current interval changes, all ACD event occurrences are cleared, and CMS begins counting event occurrences 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 11, "System Setup — Storage Intervals," for more information.)

Interactions With Switch Features

Real-time reports interact as stated with the following switch features.

Direct Agent Calling (Generic 3 only)

Direct agent calls are tracked separately from other ACD calls in the CMS database tables. Since direct agent calls are not split 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_". Reports can be customized to include direct agent data. In the real-time split 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. Only the **OTHER** value will appear on standard real-time reports. The number of direct agent calls queued appears on the Queue/Agent Summary report.

Multiple Call Handling (Generic 2 only)

The Multiple Call Handling feature allows an ACD agent to put a call on hold and to become available to take another ACD call. 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 will accrue 10 minutes' time on hold for the two calls in the space of only 5 minutes on the clock.

Hold Tracking (Generic 3, Generic 2, and System 85 R2V4)

CMS will track and report hold state for calls in the hold state for a Generic 3, Generic 2, and System 85 R2V4 switch. This means that CMS will be notified when an agent puts a call on hold. For Generic 3, CMS tracks **all** calls put on hold. For Generic 2 and System 85 R2V4, CMS tracks **split** calls put on hold.

Ringling

In real-time reports, CMS displays the number of agents with split ACD calls ringing at their voice terminals. This information is only meaningful if agents' voice terminals are programmed to ring rather than receive zip tone. the switch sends a message to CMS when a call is directed to an agent and alerting begins. Currently, this is only supported on System 85 R2V4, Generic 2, and Generic 3. If your switch does not have this change, the ring state columns in standard reports will display blanks.

Transfer Tracking

CMS tracks and reports transfers of ACD calls out of a split for Generic 2.2. For Generic 3, CMS tracks all transferred calls made by measured agents. For Generic 2.1 and System 85 R2V4, transferred calls to a VDN are tracked in the VDN tables. The agent and split reports display these transfers. Transfers into a split, agent, or VDN are not tracked explicitly (i.e., the party initiating the transfer is credited with a transfer, not the party receiving the transfer).

Conference Tracking

Conference tracking is equivalent to Transfer Tracking. Agents that transfer a call by conferencing and then dropping off will be credited with a conference and not a transfer.

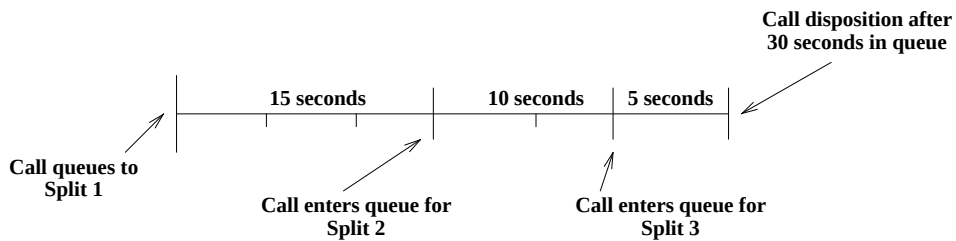
Call Pickup

CMS tracks ACD calls that are answered by an agent using the Call Pickup feature as AUXIN calls.

Multiple-Split Queuing

On a Generic 3 or Generic 1, calls can be queued to as many as three splits simultaneously. For the first split to which a call is queued (primary split), CMS pegs an answer, outflow (leaves vector processing or is answered by an agent in another split), or abandon. For the second or third split to which a call is queued, CMS pegs an answer and an inflow if the call is answered in that split. If the call is answered in another split, the call outflows, or the caller abandons, CMS pegs a dequeued. When a call is queued to multiple splits and is then answered by an agent in one of those splits, the call is counted as an answered call for the answering split and as a *dequeued* call for all other splits to which the call was queued at the time it was answered.

In the following Multiple-Split Queuing example, you see the call queue to Split 1 first, then queue to Split 2 after 15 seconds, then after another 10 seconds, the call enters Split 3's queue. The call is now queued to Split 1, 2, and 3 at the same time. See the example for disposition of the call for all three splits if the call abandoned, was answered, or routed to a VDN.



Call Disposition	Split 1	Split 2	Split 3
Abandoned	ABNTIME = 30	DEQUETIME = 15	DEQUETIME = 5
Split 2 Answered	OUTFLOWTIME = 30	ANSTIME = 15 INFLOWCALLS	DEQUETIME = 5
Route to VDN	OUTFLOWTIME = 30	DEQUETIME = 15	DEQUETIME = 5

Figure 4-2. Multiple-Split Queuing Example

Agents in Multiple Splits

CMS requires agents to log into multiple splits using the same login ID for all splits. This allows CMS to track the agent as a single person and to coordinate the data for that agent.

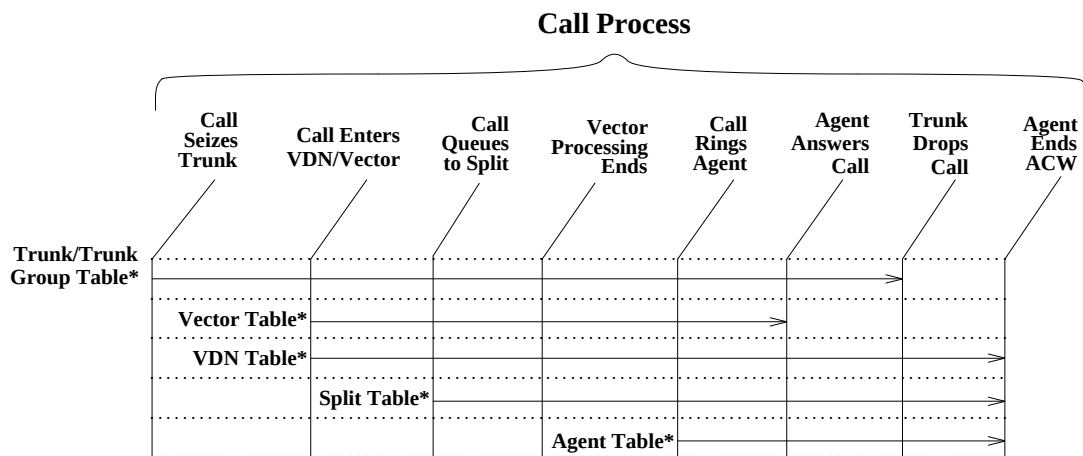
Real-time reports assume that agents can only be doing one thing at a time. Agents can be in the following states: AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, or UNSTAFFED. When an agent logs into multiple splits, the split number(s) will be shown on the report(s) for the states (ACD, DACD, ACW, AVAIL, and RING) associated with the call. For example, if an agent logged into Split 1 and Split 2 and answers an ACD call for Split 2, the split number shown in the standard real-time report(s) will be "2".

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 will show all the splits in which the agent is available. If an ACD call is ringing the agent's voice terminal, the real-time report will show the RING state (Generic 3 only). If a personal call is ring the agent's voice terminal, the real-time report will show the OTHER state. No split will be shown for the AUX and UNKNOWN states because these states are not split related. The agent will be shown as being in AUX **only** if the agent is in AUX in **all** splits.

With real-time split reports, if an agent is available in Split 1 and in AUX in Split 2 and you request the Split report which displays both splits, the report will show the agent as AVAIL in Split 1 and as OTHER in Split 2.

How CMS Tracks ACD Data

Using the data in the real-time and historical databases, CMS can generate standard reports which allow you to track your call center's activities. CMS tracks the various agent, split, trunk, trunk group, vector, and VDN activities at different points in the call process. Figure 4-2 shows how CMS tracks these call activities from the time the call seizes a trunk till an agent ends after call work (ACW) activity.



*The CMS database table that stores the call data. This is also the point at which CMS starts collecting call data, and the arrow is the point at which CMS stops collecting data. Also, with vectoring, the "Stop" command stops vector processing.

Figure 4-3. How CMS Tracks a Call

The agent table starts tracking non-ACD calls when the agent answers or completes dialing.

The split table ends processing when ACW for a completed call ends, the call abandons, or the call leaves the queue and is forwarded to another destination (e.g., intraflow).

Vector processing continues until the caller is answered by an ACD agent, abandons, or routes to a station, trunk, or another VDN or vector. Calls that route to a split do not leave vector processing (Generic 3 only).

VDN processing ends when ACW for a ACD completed call ends, the call abandons, the call routes to a trunk or VDN, or the call is transferred.

Agent States

Status changes sent from the switch are the source of all ACD data (for splits and trunk groups, as well as agents and trunks). As a result, the states of agent extensions and trunks form the basis of all other data. The following list explains what the agent states are. These states appear on CMS standard real-time reports as CMS records the current status of the ACD. The trunk states are described with the Trunk Group Report.

■ ACD

The extension is engaged on an ACD call (with the agent either talking to the caller or the call waiting on hold).

■ Available (AVAIL)

The extension is able to accept an ACD call. An extension is AVAIL in AUTO-IN any time it is not on a call. An extension is also AVAIL in MANUAL-IN immediately after the MANUAL-IN button is pressed.

■ After Call Work (ACW)

The agent is engaged in bookkeeping, data entry, or other work related to the previous call, and is not available to receive another call. The extension enters after-call work after an ACD call on MANUAL-IN. On a Generic 3/Generic 1, the agent can select the state with the AFTER CALL WORK button, even when the agent has been in the AUTO-IN mode.

An agent's time in ACW includes time an agent is on an incoming or outbound call while in ACW, as well as time in ACW when the agent is not connected to any calls.

■ Auxiliary Work (AUX)

The agent is engaged in non-ACD work, is on break, in a meeting, or at lunch. The agent presses the AUX WORK button when the agent wants CMS to recognize the extension as staffed, but does not want the ACD to distribute calls to the voice terminal.

On Generic 3/Generic 1, when an agent logs into more than one split, the agent will generate excessive AUX-WORK time since CMS shows the agent to be in AUX-WORK in one split while the agent is handling an ACD call in another split. Therefore, to get an accurate account of AUX-WORK time for an agent in a split, the agent's ACD time for the other splits should be subtracted from the agent's AUX-WORK in the split in question.

Directions of AUX WORK are:

— IN

The extension received an extension-in call while in AUX WORK. If an extension in AVAIL receives an extension-in call, the state changes to AUX-IN.

— OUT

The agent placed an outgoing call while in AUX WORK. If an agent places an extension-out call while in AVAIL, the state changes to AUX-OUT.

An agent's time in AUX includes time in AUXIN and AUXOUT, as well as time in AUX when the agent is not connected to any calls.

■ Unstaffed (UNSTAF)

The agent is not logged in and being tracked by CMS.

■ 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 call, working on a call for another split, or has put a call on hold and has not chosen another work mode.

■ UNKNOWN

CMS does not recognize the current state. For example, the link is down, or an error has been detected. UNKNOWN remains until the condition is cleared (link comes up) and/or the agent completes the current ACD call and any associated ACW, or a current agent state message is sent to CMS from the switch.

■ RING

The time a call rings at an agent's voice terminal after leaving the queue and before the agent answers the call. *Available only with Generic 2, Load 3.1 or later with ring state enabled or Generic 3.* With this state, you can actually determine how long a call rings before an agent answers, and thereby determine the actual time a caller waits in queue and waits while the call is ringing to better analyze your call center's performance.

Items That Can Affect Real-Time Report Data

At times your report data could look peculiar or be missing data. Any of the following items could cause this.

Switch Clock



CAUTION:

*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 will be marked as incomplete.*

If you cannot turn off data collection before changing the switch clock, 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) will be 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 will 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.

Agents in Multiple Splits

- If an agent is logged into multiple splits, in the AUTO-IN mode, and is available (AVAIL) in the three splits, the split names or numbers could appear in any order on the report (e.g, Split 3, Split 1, Split 2).
- If you display several real-time reports on your screen and have agents available in multiple splits, agent time on the reports may appear to be wrong, but it is **not**. You could see this if:
 - The refresh rate is different between the reports. For example, one report will have a refresh rate of 30 seconds and the other may have a refresh rate of 35 seconds — a difference of 5 seconds. When the report is updating, the difference of these few seconds could make the reports appear to not add up.
 - You are using same refresh rate but bring the reports up at a different times.

Service Level Increments for Call Profile Reports



CAUTION:

If you change the increments, data will be distorted for the interval in which you made the change. CMS deletes the split call profile data already collected for that interval and only keeps the split call profile data that occurred in that interval after the change. Then CMS tries to combine the split/VDN call profile data gathered both before and after the change into a single daily record of split call profile data. As a result, some data is placed in the wrong time intervals. See the appropriate split or VDN Call Profile Report for more information.

Split > Reports

From the Split > menu (Figure 4-4) you can select Status, Report, or Call Profile. The Split Status report shows the status of one split. The Split report shows the status of up to six splits. The Call Profile report shows the wait times for incoming calls handled and abandoned in a split during the current interval. Each report is described in this chapter.

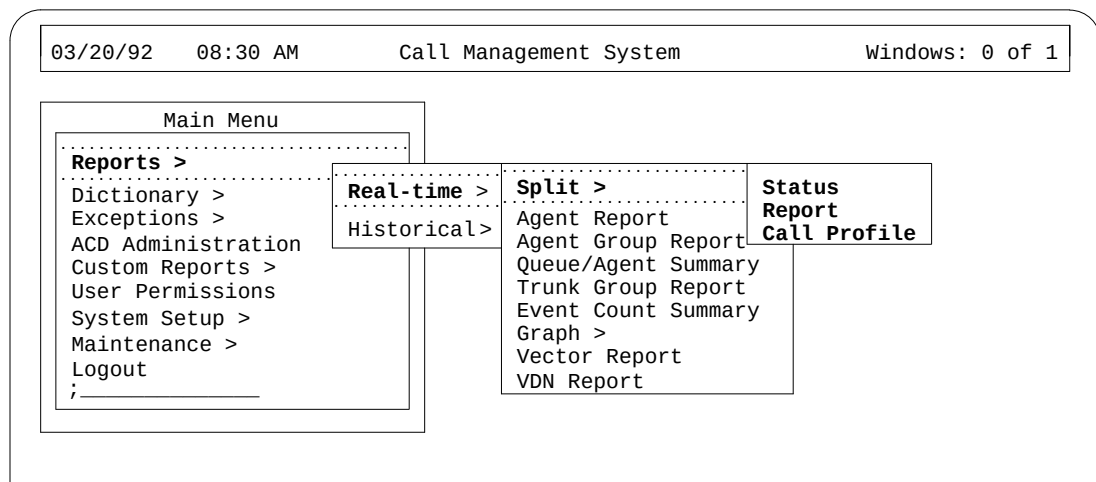


Figure 4-4. Split Reports Menu

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.

Things to Know About This Report

- All agents who are logged into the selected split are displayed.
- See Chapter 2, “User Basics,” for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have **read** permission for the report subsystem and the particular split you are viewing in this report. See Chapter 10 “User Permissions — Feature Access and Split Access.”

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

If you want to be notified of exceptions via the terminal beep/flash and the exception count on the title bar, you must have exceptions permission for the split (see Chapter 10, “User Permissions — Split Access”).

To view the Real-Time Exceptions Log, you must have read permission for the Exceptions subsystem (see Chapter 10, “User Permissions — Feature Access”).

Dictionary

For split names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Split Status Input Window

You must fill in the report input window to run the report. Field descriptions for the window follow.

The screenshot shows a window titled "Call Management System" with a status bar at the top displaying "03/20/92 08:30 AM" and "Windows: 1 of 1". The main content area contains a form with the following elements:

- A header row: "Rpts: Real: Split: Status Input" followed by a button labeled "ACD1".
- A "Split:" label followed by a text input field.
- A "Refresh rate in seconds:" label followed by a text input field.
- A "Run" button located to the right of the "Split:" input field.

Figure 4-5. Split Status Input Window Example

Field Descriptions

Split:

Enter the split name or number you want to view.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Split Status Report Example

A description of each report item follows the report example.

```
Split: Ordering
Calls Waiting      25
Oldest Call Waiting 1:08

Agent      State  Split(s)  Time
Jones, M   ACD IN   7         1:40
Garcia, J   ACD IN   7         1:35
Masters, K  ACD IN   7         1:29
Tenneyson, A ACD IN   7         1:23
Watson, T   ACD IN   7         1:06
```

Figure 4-6. Split Status Report Example

Table 4-1. Split Status Report Description

⇒ NOTE:

The database items and calculations for the report headings **Split**, **Calls Waiting**, and **Oldest Call Waiting** apply to the *csplit* table for the current interval and the *psplit* for the previous interval. All other database items and calculations in this report apply to the *pagent* table for the previous interval or *cagent* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	Name or number of the split selected for this report.	<i>SYN(SPLIT)</i>
Calls Waiting	The number of calls waiting to be answered. This includes calls that are in queue or ringing at an agent voice terminal but does not include direct agent calls (Generic 3 only).	<i>INQUEUE+INRING</i>
Oldest Call Waiting	The number of seconds the oldest call in queue or ringing at an agent voice terminal has waited. This does not include direct agent calls.	<i>OLDESTCALL</i>
Agent	Names (or agent IDs if the names have not been assigned in Dictionary) of the agents assigned to this split and logged in.	<i>SYN(LOGID)</i>
State	The current work mode (state) the agent is in (AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, UNSTAFF) and the call direction (IN or OUT).	<i>WORKMODE and DIRECTION</i>

Table 4-1. Split Status Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split(s)	When an agent is on a split or direct agent call or in the ACW (After Call Work) mode, this is the split associated with the call or the ACW. When an agent is on an AUXIN or AUXOUT call, this is the split that the agent has been logged into the longest. When an agent is available, this is the last split in which the agent became available. For agents in multiple splits (Generic 3 only), all of the splits the agent is available in are listed.	<i>WORKSPLIT, WORKSPLIT2, WORKSPLIT3</i>
Time	The amount of time the agent has been in the current work mode (AVAIL, ACD, etc.) and the call direction. Time is zeroed whenever the work mode or call direction changes. That is, if the agent goes from ACD-IN to AVAIL, time will start over.	<i>AGTIME</i>

Split Report

The Split report displays real-time call-handling information for up to six splits simultaneously. It allows the supervisor to evaluate and compare each split's workload and call-handling performance and determine agent reassignment or other ACD configuration alternatives to balance workloads and/or reduce abandoned calls.

Things to Know About This Report

- You can enter a range or list of splits. If you only want to view one split, you may size the window down.
- See Chapter 2, "User Basics," for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have **read** permission for the reports subsystem and all splits that you want to view. See Chapter 10, "User Permissions — Feature Access and Split Access."

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

If you want to be notified of exceptions via the terminal beep/flash and the exception count on the title bar, you must have exceptions permission for the split (see Chapter 10, "User Permissions — Split Access").

To view the Real-Time Exceptions Log, you must have read permission for the Exceptions subsystem (see Chapter 10, "User Permissions — Feature Access").

Dictionary

For split names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Split Input Window

You must fill in the report input window to run the report.

Rpts: Real: Split: Report Input	ACD1
Split(s):	Run
Refresh rate in seconds: ___	

Figure 4-7. Split Input Window Example

Field Descriptions

Split(s):

Enter the split name(s) or number(s) that you want to view in this report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Split Report Example

A description of each report item follows the report example.

Splits:	Orderin	Purcha	Billin	Credit	Travel	Maint
Calls Waiting	21	21	21	20	20	1
Oldest Call Waiting	:54	:54	:54	:57	:57	:02
Avg Speed of Answer	1:02	1:01	1:02	1:01	1:01	:02
Split ACD Calls	174	174	174	171	171	34
Avg Split ACD Talk Time	4:00	4:00	4:00	4:00	4:00	2:00
Abandoned Calls	36	35	36	20	20	0
Avg Time to Abandon	1:08	1:10	1:08	1:07	1:07	
Agents: Available	0	0	0	0	0	0
Ringing	0	0	0	0	0	0
ACD Calls	70	70	70	70	70	6
After Call Work	0	0	0	0	0	7
Other	0	0	0	0	0	0
Aux Work	0	0	0	0	0	0
Staffed	70	70	70	70	70	15

Figure 4-8. Split Report Example

Table 4-2. Split Report Description



NOTE:

All database items and calculations apply to the *psplit* for the previous interval or *csplit* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	Name or number of the split(s) selected for this report.	SYN(SPLIT)
Oldest Call Waiting	The number of seconds the oldest call in queue or ringing at an agent voice terminal has waited. This does not include direct agent calls.	OLDESTCALL
Calls Waiting	The number of calls waiting to be answered. This includes calls that are in queue or ringing at an agent voice terminal but does not include direct agent calls (Generic 3 only).	INQUEUE+INRING
Avg Speed of Answer	The average time calls waited in queue or ringing before an agent answered. This does not include direct agent calls.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>
Split ACD Calls	The number of calls to the split that were answered by an agent. This does not include direct agent calls.	ACDCALLS
Avg Split ACD Talk Time	The average talk time (does not include hold time) for all ACD calls to this split. This does not include direct agent calls.	ACDTIME/ACDCALLS <AVG_ACD_TALK_TIME>
Abandoned Calls	The number of calls to the split that were abandoned before an agent answered. This includes calls that are ringing at a voice terminal but does not include direct agent calls. If a call is queued to more than one split (Generic 3 only), an abandon is only pegged for the first split to which the call is queued.	ABNCALLS
Avg Time to Abandon	The average time a caller waited before hanging up.	ABNTIME / ABNCALLS <AVG_ABANDON_TIME>

Table 4-2. Split Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Agents: Available	The number of agents who are available to receive calls to the split.	AVAILABLE
Agents: Ringing	The number of ACD calls ringing at agent voice terminals. This does not include direct agent calls.	AGINRING
Agents: ACD Calls	The number of agents handling inbound and outbound ACD calls. This does not include direct agent calls. If the PBX has the ASAI feature, this may include calls initiated by an adjunct processor or host computer.	ONACD
Agents: After Call Work	The number of agents who are in the after call work mode.	INACW
Agents: Other	The number of agents handling direct agent calls (calls to a specific agent) or doing direct agent ACW (After Call Work) or handling an ACD call or in ACW for another split, or agents with calls on hold and no other state selected.	OTHER
Agents: Aux Work	The number of agents who are in the auxiliary work mode including agents who are handling AUXIN or AUXOUT calls.	INAUX
Agents: Staffed	The number of agents logged into this split.	STAFFED

Split Call Profile Report

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

Things to Know About This Report

- Calls are displayed in ten columns, with each column representing a progressively longer wait time (increment).

Prerequisite System Administration

- You must first define your acceptable service level and service level increments for this split in the Split Call Profile Setup window. If you do not define your service level and increments, zero (0) will be used for all increments (therefore, all calls will appear in the first increment). For more information, see Chapter 9, “ACD Administration — Split Call Profile Setup.”



CAUTION:

If you change the increments, data will be distorted for the interval in which you made the change. CMS deletes the split call profile data already collected for that interval and only keeps the split call profile data that occurred in that interval after the change. Then CMS tries to combine the split call profile data gathered both before and after the change into a single daily record of split call profile data. As a result, some data is 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 Call Profile report will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 1, 5, 7, 10 for the date of the change.

To avoid misleading split 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.

Split Call Profile Input Window

You must fill in the Split Call Profile report input window to run the report. Field descriptions follow the input window.

Rpts:	Real:	Split:	Call Profile Input	acd1

Refresh rate in seconds:

Run

Destination is pr1

Figure 4-9. Split Call Profile Input Window Example

Field Descriptions

Split:

Enter the appropriate split name or number.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Split Call Profile Report Example

An example of the report follows, along with a description of each report item.

	Split: Wholesale										% Within Service Level 0.00																												
Secs.	0	-	3	-	6	-	11	-	15	-	20	-	24	-	30	-	38	-	45	-	>																		
Ans	0		0		0		0		0		0		0		0		0		0		192																		
Aban	0		0		0		0		0		0		0		0		0		0		30																		
Total Calls Answered										191										Total Calls Abandoned										30									
Average Speed of Answer										1:02										Average Time to Abandon										1:07									
Percentage Answered										86.42										Percentage Abandoned										13:57									

Figure 4-10. Split Call Profile Report Example

Table 4-3. Split Call Profile Report Description



NOTE:

All database items and calculations apply to the *psplit* for the previous interval or *csplit* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	The name or number of the split selected for this report.	SYN(SPLIT)
% Within Service Level	The percentage of calls to the split that were answered by an agent within the predefined acceptable service level. Calls to the split include calls that were abandoned and calls that were not answered, but do not include direct agent calls. Calls that were not answered may include: forced busy calls, forced disconnect calls, calls redirected to another destination, and calls queued to more than one split and answered in another split.	100*(ACCEPTABLE/ CALLSOFFERED) <PERCENT_SERV_LVL_SPL>
Secs	The size (in seconds) of each increment. Each increment of seconds represents a progressively longer wait time for a call in queue, and each increment can be a different length. These increments are defined in the ACD Administration subsystem Split Call Profile Setup window.	PERIOD1-9
Answered	Within each increment, the number of calls to the split that were answered by an agent. This does not include direct agent calls (Generic 3 only).	ACDCALLS1-10
Abandoned	Within each increment, the number of calls to the split that were abandoned. This does not include direct agent calls.	ABNCALLS1-10
Total Calls Answered	The total number of calls to the split that were answered by an agent. This does not include direct agent calls (Generic 3 only).	ACDCALLS

Table 4-3. Split Call Profile Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Average Speed of Answer	The average time calls waited in queue or ringing before an agent answered. This does not include direct agent calls.	<i>ANSTIME/ACDCALLS</i> <AVG_ANSWER_SPEED>
Percentage Answered	The percentage of calls to the split that were answered by an agent. Calls to the split include calls that were abandoned and calls that were not answered, but do not include direct agent calls. Calls that were not answered may include: forced busy calls, forced disconnect calls, calls redirected to another destination, and calls queued to more than one split (Generic 3 only) and answered in another split.	<i>100*(ACDCALLS/CALLSOFFERED)</i> <PERCENT_CALL_ANS>
Total Calls Abandoned	The total number of calls to the split that were abandoned before being answered by an agent. This includes calls that are ringing at a voice terminal but does not include direct agent calls. If a call is queued to more than one split (Generic 3 only), an abandon is only pegged for the first split to which the call is queued.	<i>ABNCALLS</i>
Average Time to Abandon	The average time a caller waited before hanging up.	<i>ABNTIME/ABNCALLS</i> <AVG_ABANDON_TIME>
Percentage Abandoned	The percentage of calls to the split that were abandoned before being answered by an agent. This does not include direct agent calls (Generic 3 only).	<i>100*(ABNCALLS/CALLSOFFERED)</i> <PERCENT_CALL_ABAN>

Agent Report

Purpose

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

Things to Know About This Report

- Only the agents currently assigned to the split and logged in will display on this report.
- For information on Agents in Multiple Splits and Multiple Call Handling, see the beginning of this chapter in the "Interactions With Switch Features" section.
- See Chapter 2, "User Basics," for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have **read** permission for the reports subsystem and the split that you want to view. See Chapter 10, "User Permissions — Feature Access and Split Access."

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

If you want to be notified of exceptions via the terminal beep/flash and the exception count on the title bar, you must have exceptions permission for the split (see Chapter 10, “User Permissions — Split Access”).

To view the Real-Time Exceptions Log, you must have read permission for the Exceptions subsystem (see Chapter 10, “User Permissions — Feature Access”).

Dictionary

For split names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Agent Input Window

You must fill in the Agent Report input window to run the report.

03/16/92 00:30 PM Call Management System Windows: 1 of 1	
Rpts: Real: Agent Report Input TRAV1	
Split: Westtravel	Run
Refresh rate in seconds: 25	

Figure 4-11. Agent Input Window Example

Field Descriptions

Split:

Enter the split name or number that you want to view in this report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Agent Report Example

A description of each report item follows the report example.

Split: Westtravel					
Agent Name	Extn	State	Split(s)	Time	VDN
Barnes, Mary	1096	ACD IN	7	2:21	wtrav
Chavez, James	1097	ACD IN	7	2:16	wtrav
Chin, Lu	1099	ACD IN	7	2:07	wtrav
MacCullin, Sam	1100	ACD IN	7	2:04	wtrav

Figure 4-12. Agent Report Example

Table 4-4. Agent Report Description

**NOTE:**

All database items and calculations apply to the *pagent* table for the previous interval or *cagent* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	Name or number of the split selected for this report.	SYN(SPLIT)
Agent Name	Names (or agent IDs if the names have not been assigned in Dictionary) of the agents assigned to this split and logged in.	SYN(LOGID)
Extn	The extension the agent logged in from.	EXTENSION
State	The current work mode (state) the agent is in (AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, UNSTAFF) and the call direction (IN or OUT).	WORKMODE and DIRECTION
Split(s)	When an agent is on a split or direct agent call or in the ACW (After Call Work) mode, this is the split associated with the call or the ACW. When an agent is on an AUXIN or AUXOUT call, this is the split that the agent has been logged into the longest. When a agent is available, this is the last split in which the agent became available. For agents in multiple splits (Generic 3 only), all of the splits the agent is available in are listed.	WORKSPLIT, WORKSPLIT2, WORKSPLIT3
Time	The length of time the agent has been in the current work mode (AVAIL, ACD, etc.) and the call direction. Time is zeroed whenever the work mode or call direction changes. That is, if the agent goes from ACD-IN to AVAIL, time will start over.	AGTIME
VDN (Shows data only if you have the Vectoring feature)	The vector directory number that the call came into.	VDN

Agent Group Report

Purpose

This 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.

Things to Know About This Report

- Only one agent group will display on this report. If you want to compare groups, you can bring up two reports and then use the **Current** SLK to rotate between the reports.
- The agent group reports can have agents who are assigned to any split.
- Only the agents logged in and assigned to the group will be displayed in the report.
- See Chapter 2, "User Basics," for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- To see data in an Agent Group report, you must create and name agent groups in the Dictionary subsystem (see Chapter 7, "Dictionary").

NOTE:

If you modify or add an agent group in the Dictionary subsystem while displaying an Agent Group report, you will have to exit the report window and then reopen the window to see the changed or new agent group information.

- You must have **read** permission for the report subsystem. See Chapter 10 "User Permissions — Feature Access."

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

Agent Group Input Window

You must fill in the Agent Group Report input window to run the report. Field descriptions for the window follow.

03/20/92 08:30 AM Call Management System Windows: 1 of 1

Rpts: Real: Agent Group Report Input ACD1

Agent Group name: _____ Run

Refresh rate in seconds: ____

Figure 4-13. Agent Group Input Window Example

Field Descriptions

Agent Group name:

Enter the name of the group you want to view.



NOTE:

Make sure you enter the group name correctly. CMS does not check to see if the group name entered exists in the Dictionary subsystem. Therefore, if you enter a name that is misspelled, the report request will run, but will not contain data because the group does not exist. You will have to reenter the group name correctly.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Agent Group Report Example

A description of each report item follows the report example.

Agent Group: Newagents

Agent Name	Extn	State	Split(s)	Time	VDN
Smith, M	2002	ACW	1	:37	Billi
Thomas, S	2004	ACW	1	:02	Billi
Sanchez, T	2006	ACW	2	1:13	Order
Soo, M	2008	AVAIL	2	:11	
Vasquez, A	2010	ACD IN	4	:25	Order

Figure 4-14. Agent Group Report Example

Table 4-5. Agent Group Report Description

**NOTE:**

All database items and calculations apply to the *pagent* table for the previous interval or *cagent* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Agent Group Name	Name of the group selected for this report.	<i>SYN(GROUP)</i>
Agent Name	Names (or agent IDs if the names have not been assigned in Dictionary) of the agents assigned to this group and logged in.	<i>SYN(LOGID)</i>
Extn	The extension the agent logged in from.	<i>EXTENSION</i>
State	The current work mode (state) the agent is in (AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, UNSTAFF) and the call direction (IN or OUT).	<i>WORKMODE and DIRECTION</i>
Split(s)	When an agent is on a split or direct agent call or in the ACW (After Call Work) mode, this is the split associated with the call or the ACW. When an agent is on an AUXIN or AUXOUT call, this is the split that the agent has been logged into the longest. When an agent is available, this is the last split in which the agent became available. For agents in multiple splits (Generic 3 only), all the splits the agent is available in are listed.	<i>WORKSPLIT, WORKSPLIT2, WORKSPLIT3</i>
Time	The amount of time the agent has been in the current work mode (AVAIL, ACD, etc.) and the call direction. Time is zeroed whenever the work mode or call direction changes.	<i>AGTIME</i>
VDN (Shows data only if you have the Vectoring feature)	The vector directory number that the call came into.	<i>VDN</i>

Queue/Agent Summary Report

Purpose

This report summarizes the split'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).

Things to Know About This Report

- See Chapter 2, "User Basics," for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have **read** permission for the reports subsystem and the split that you want to view. See Chapter 10, "User Permissions — Feature Access and Split Access."

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

If you want to be notified of exceptions via the terminal beep/flash and the exception count on the title bar, you must have exceptions permission for the split (see Chapter 10, "User Permissions — Split Access").

To view the Real-Time Exceptions Log, you must have read permission for the Exceptions subsystem (see Chapter 10, "User Permissions — Feature Access").

Dictionary

For split names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Queue/Agent Summary Input Window

You must fill out the Queue/Agent Summary report input window to run the report. Field descriptions follow the window.

03/20/92 08:30 AM Call Management System Windows: 1 of 1	
Rpts: Real: Queue/Agent Summary Input	ACD1
Split: _____	Run
Refresh rate in seconds: ____	

Figure 4-15. Queue/Agent Summary Input Window Example

Field Descriptions

Split:

Enter the split name or number that you want to view in this report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Queue/Agent Summary Report Example

A description of each report item follows the report example in the Queue/Agent Summary Report Description table.

```
Split: Sales
Calls Waiting 2
Oldest Call Waiting :16
Direct Agent Calls Waiting 0
% Answered Within xxx Seconds 74

Agents:
  Staffed 15   ACD Calls 8
  Available 0   After Call work 7
  Ringing 0
```

Figure 4-16. Queue/Agent Summary Report Example

Table 4-6. Queue/Agent Summary Report Description



NOTE:

All database items and calculations apply to the *psplit* for the previous interval or *csplit* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	Name or number of the split selected for this report.	<i>SYN(SPLIT)</i>
Calls Waiting	The number of calls waiting to be answered. This includes calls that are in queue or ringing at an agent voice terminal but does not include direct agent calls (Generic 3 only).	<i>INQUEUE+INRING</i>
Oldest Call Waiting	The number of seconds the oldest call in queue or ringing at an agent voice terminal has waited. This does not include direct agent calls (Generic 3 only).	<i>OLDESTCALL</i>

Table 4-6. Queue/Agent Summary Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Direct Agent Calls Waiting	The number of direct agent calls (Generic 3 only) waiting in this split's queue.	DA_INQUEUE
% Answered Within Service Level	The percentage of calls to the split that were answered by an agent within the predefined acceptable service level. Calls to the split include calls that were abandoned and calls that were not answered, but do not include direct agent calls. If the switch has the Call Vectoring feature, calls that were not answered may include: forced busy calls, forced disconnect calls, calls redirected to another destination, and calls queued to more than one split (Generic 3 only) and answered in another split.	100*(ACCEPTABLE/ CALLSOFFERED) <PERCENT_SERV_LVL_SPL>
Seconds	The number of seconds that is acceptable for an ACD call to wait before connecting to an agent.	SERVICELEVEL
Agents: Staffed	The number of agents logged into this split.	STAFFED
Agents: Available	The number of agents who are available to receive calls to the split.	AVAILABLE
Agents: Ringing	The number of ACD calls ringing at agent voice terminals. This does not include direct agent calls or extensions calls.	AGINRING
Agents: ACD Calls	The number of agents handling inbound and outbound ACD calls. This does not include direct agent calls. If the switch has the ASAI feature, this may include calls initiated by an adjunct processor or host computer.	ONACD
Agents: After Call Work	The number of agents who are in the after call work mode. This does not include direct agent ACW time.	INACW

Trunk Group Report

Purpose

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.

Things to Know About This Report

The trunk states have the following meanings:

IDLE	The trunk is waiting for a call.
CONN	The caller and an agent are connected on an ACD call.
QUEUED	An ACD call has seized a trunk and is queued to a split waiting for an agent to answer.
SEIZED	A call is holding the trunk, either incoming or outgoing.
MBUSY	The trunk is maintenance busy, out of service for maintenance purposes.
HOLD	The agent has put the caller on this trunk on hold.
UNKNOWN	CMS doesn't recognize the state (for example, when the link first comes up and CMS is not receiving ACD data).
DABN	The queued caller abandoned the call. The trunk quickly goes to idle.
FBUSY	The caller receives forced busy signal if you have a Generic 1, Generic 3, or Generic 2/System 85 with Call Vectoring.
FDISC	The caller receives a forced disconnect. This appears only if you have the Vectoring feature.
RINGING	A call is ringing at the agent's voice terminal.

See Chapter 2, "User Basics," for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have **read** permission for the Reports' subsystem and the trunk group that you want to view. See Chapter 10, "User Permissions — Feature Access and Trunk Group Access."

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

If you want to be notified of exceptions via the terminal beep/flash and the exception count on the title bar, you must have exceptions permission for the trunk group (see Chapter 10, "User Permissions — Trunk Group Access").

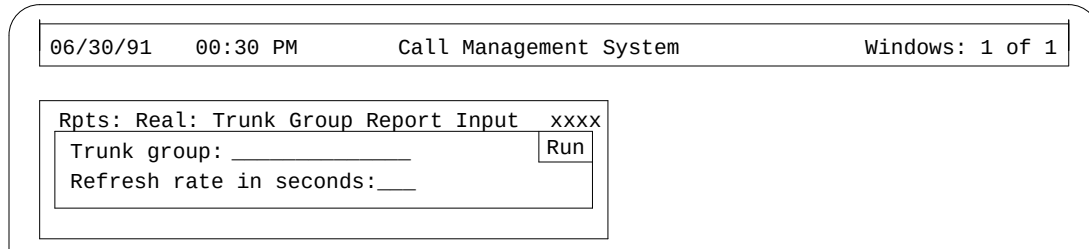
To view the Real-Time Exceptions Log, you must have read permission for the Exceptions subsystem (see Chapter 10, "User Permissions — Feature Access").

Dictionary

For trunk group names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Trunk Group Input Window

You must fill in the Trunk Group report input window to run the report. Field descriptions follow the window.



The screenshot shows a window titled "Call Management System" with a status bar indicating "06/30/91 00:30 PM" and "Windows: 1 of 1". The main content area displays "Rpts: Real: Trunk Group Report Input xxxx". Below this, there are two input fields: "Trunk group: _____" and "Refresh rate in seconds:____". A "Run" button is positioned to the right of the "Trunk group" field.

06/30/91 00:30 PM	Call Management System	Windows: 1 of 1

Rpts: Real: Trunk Group Report Input xxxx	
Trunk group: _____	Run
Refresh rate in seconds:____	

Figure 4-17. Trunk Group Input Window Example

Field Descriptions

Trunk group:

Enter the trunk group name or number that you want to view in this report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Trunk Group Report Example

A description of each report item follows the report example.

```
Trunk group: Billing

Trunk      State   Dir   Time   Agent      Extn  Split  VDN
000221301  CONN    IN    1:40   Smith,M    2002   11     Billi
000221302  CONN    IN    1:24   Sanchez,T  2006   11     Billi
000221303  CONN    IN    1:07   Brown,T    2202   12     Billi
000221400  IDLE                    :10        2022   11
000221402  IDLE                    :27        2009   12
```

Figure 4-18. Trunk Group Report Example

Table 4-7. Trunk Group Report Description

**NOTE:**

All database items and calculations apply to the *ptkgrp* for the previous interval or *ctkgrp* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Trunk group	Name or number of the Trunk group selected for this report.	<i>SYN(TKGRP)</i>
Trunk	The trunk equipment location assigned to this trunk group.	<i>EQLOC</i>
State	The current state of the trunk (IDLE, CONN, QUEUED, SEIZED, MBUSY, HOLD, UNKNOWN, ABANDON, FBUSY, FDISC, RING).	<i>SYN(TKSTATE)</i>
Dir	The direction the trunk is carrying the call (in or out).	<i>SYN(DIRECTION)</i>
Time	Time the trunk has spent in the current state.	<i>DURATION</i>
Agent	The name of the agent handling the call on the trunk.	<i>SYN(LOGID)</i>
Extn	The extension number associated with the current call on the trunk.	<i>EXTENSION</i>
Split	The split number associated with the current call on the trunk.	<i>SPLIT</i>
VDN (Shows data only if you have the Vectoring feature)	The vector directory number that the call came into.	<i>VDN</i>

Event Count Summary

Purpose

The Event Count Summary report displays the number of times during the current interval an agent pressed an Event Count button (total of nine buttons).

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

Things to Know About This Report

- Event counts are only recorded while an agent is on an ACD call. If an agent is in AUTO-IN mode, the ACD call will terminate when the caller hangs up. With 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 which indicates to CMS the agent is still on the ACD call. As long as the agent records the event before returning to the AVAIL mode, all events will be counted.
- This report is available with Generic 2, System 85, and Generic 3 switches only.
- Event Count buttons are also known as Stroke Count buttons.
- See Chapter 2, “User Basics,” for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

You must have **read** permission for the reports subsystem and the split that you want to view. See Chapter 10, “User Permissions — Feature Access and Split Access.”

Relationships to Other Subsystems

Exceptions

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

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

If you want to be notified of exceptions via the terminal beep/flash and the exception count on the title bar, you must have exceptions permission for the trunk group (see Chapter 10, “User Permissions — Trunk Group Access”).

To view the Real-Time Exceptions Log, you must have read permission for the Exceptions subsystem (see Chapter 10, “User Permissions — Feature Access”).

Dictionary

For split names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Event Count Summary Input Window

You must fill in the report input window to run the report. Field descriptions for the window follow.

03/16/92	08:30 AM	Call Management System	Windows: 1 of 1

Rpt: Real: Event Count Summary Input		TRAV1
Split: Westravel		Run
Refresh rate in seconds: 25		

Figure 4-19. Event Count Summary Input Window

Field Descriptions

Split:

Enter the split name or number that you want to view in this report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Event Count Summary Report Example

A description of each report item follows the report example in the Event Count Summary Report Description.

Split: Westravel

Agents Staffed: 15

Agent Name	ACD Calls	Event Count								
		1	2	3	4	5	6	7	8	9
Barnes, Mary	6	0	0	0	2	0	0	0	0	1
Chavez, Jane	6	1	0	0	0	0	0	0	1	0

Figure 4-20. Event Count Summary Report Example

Table 4-8. Event Count Summary Report Description



NOTE:

All database items and calculations apply to the *psplit* for the previous interval or *csplit* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	Name or number of the Split selected for this report.	<i>SYN(SPLIT)</i>
Agents Staffed	The number of agents logged into this split.	<i>STAFFED</i>
Agent Name	Names (or agent IDs if the name has not been assigned in Dictionary) of the agents assigned to this split and logged in.	<i>SYN(LOGID)</i>
ACD Calls	The number of split and direct agent calls (Generic 3 only) handled by this agent. This is the number of calls the agent handled, not the number of calls for which the agent counted an event.	<i>ACDCALLS + DA_ACDCALLS</i>
Event Count	The number of times this agent pressed each event (stroke) count button (1 - 9).	<i>EVENT1-9</i>

Graph > Reports

General Information

Graph reports (Figure 4-21) 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, the number of seconds the oldest call in queue has waited, and the percentage of calls answered within the service level. Graph reports can be displayed on color or monochrome terminals.

Graph reports display information in a bar-graph format. As conditions change, the height of the bars changes. When preassigned thresholds are met, the color or intensity of the bars changes. These changes alert you to conditions that may require corrective action.

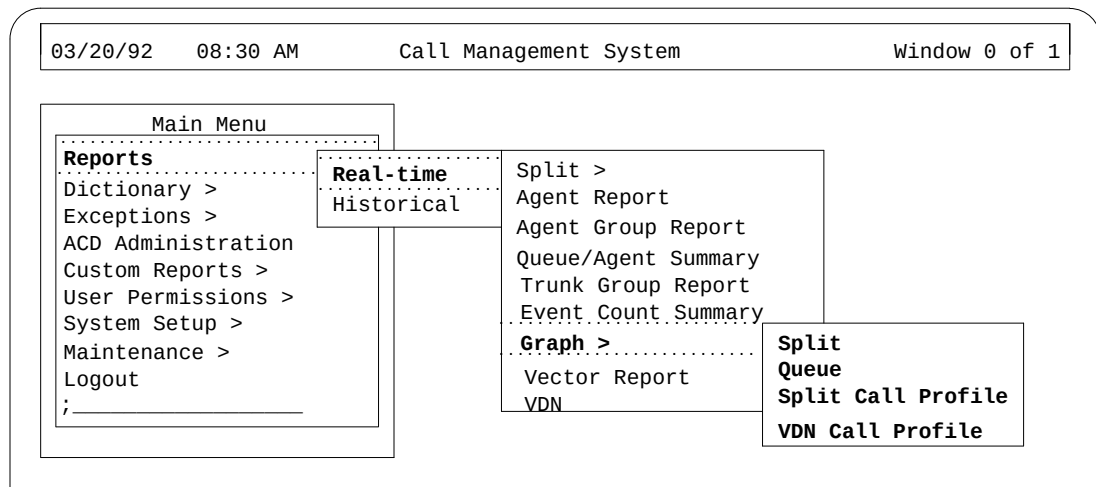


Figure 4-21. Graph Reports Menu

Intensity/Color of Bars

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

Things to Know About Graph Reports

- Graph reports are designed to work on character terminals only.
- With color terminals, you change the colors by selecting the **Options** menu item from the **Commands** SLK. See Chapter 2, "User Basics — Changing Your Terminal's Colors," for the procedures.
- Bar graphs use standard Dictionary calculations.
- When the data displayed on a bar is greater than the maximum size allowed for that bar, "****" are displayed on the top line of the bar.
- Bar graphs are printed using periods as the bar. Once the *first threshold* is met, the bar is printed using the plus (+) sign. When the *second threshold* is met, the bar is printed using the pound (#) sign.
- If your thresholds and maximums do not change much on a day-to-day basis, you can set up the input parameters once and then save them as your default values. See Chapter 2, "User Basics — Defaults," for the procedures.

Graph Terms

The following terms will help you understand and use the graph reports.

- **First threshold** — The lower limit you enter for a particular condition in the 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.
- **Second threshold** — The upper limit you enter for a particular condition in the report. When this defined 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.
- **Normal condition** — The bars in the graph are within your acceptable limits.
- **Caution condition** — The bars in the graph 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.
- **Warning condition** — The bars in the graph have changed color or intensity indicating that the data being displayed met your defined *second threshold* limit.

Split Graph

The Split Graph report displays real-time call-handling information on one split at a time, only in bar format. It allows the supervisor to evaluate and compare the split's workload and call-handling performance and determine agent reassignment or other ACD configuration alternatives to balance workloads and/or reduce abandoned calls.

Things to Know About This Report

- This graph is equivalent to the Split report, but for only one split. You can use the numbers on the Split report to compare with the split used in this graph report.
- See Chapter 2, "User Basics," for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have purchased the Graphics option to see this report.
- You must have **read** permission for the reports subsystem and the split that you want to view. See Chapter 10, "User Permissions — Feature Access and Split Access."

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

Dictionary

For split names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Split Graph Input Window

From this window, you will set the parameters for the Split Graph report. You must fill out this window to run the report. Field descriptions follow the window.

03/20/92 08:30 AM Call Management System Windows: 1 of 4

Rpts: Real: Graph: Split Input ACD1

Run

Split: _____

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 4-22. Split Graph Input Window Example

Field/Action List Usage

The maximum value field entries (like Maximum calls waiting) are used to scale the graphs. It would be helpful to use the data from the Split report when entering these values to maximize the appearance of the data represented by the bar size.

Field Descriptions

Split:

Enter the name or number of the split you want to view in this report.

Maximum calls waiting:

Enter the maximum number of calls that you think could be waiting at any one time.

When the Calls wait bar in the graph report is at its maximum height, it will equal 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 will 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 will change color/intensity.

Second calls waiting threshold:

Enter the number of calls that will separate the Caution condition from the Warning condition.

This number must be greater than or equal to the number entered in the First calls waiting threshold field. When the calls waiting in queue to be answered meet or exceed this second threshold, the Calls Wait bar will change color/intensity.

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 will equal this number when they are at maximum height.

First oldest call wait thres (Secs):

Enter the number of seconds that will 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:

Enter the number of seconds that will 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 will 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 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, check with your CMS administrator.

Split Graph Report Example

A description of each report item follows the report example.

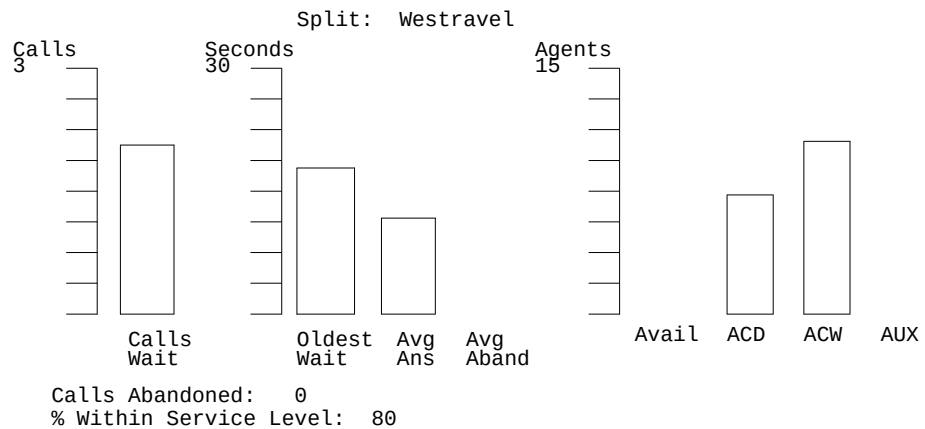


Figure 4-23. Split Graph Report Example

Table 4-9. Split Graph Report Description

**NOTE:**

All database items and calculations apply to the *psplit* for the previous interval or *csplit* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	Name or number of the split(s) selected for this report.	<i>SYN(SPLIT)</i>
Calls Wait	The number of split calls in queue waiting to be answered. This includes calls that are ringing at an agent voice terminal but does not include direct agent calls (Generic 3 only).	<i>INQUEUE+INRING</i>
Oldest Wait	The number of seconds the oldest call in queue or ringing at an agent voice terminal has waited. This does not include direct agent calls (Generic 3 only).	<i>OLDESTCALL</i>
Avg Ans	The average time calls waited in queue and rang before an agent answered. This does not include direct agent calls.	<i>ANSTIME/ACDCALLS</i> <AVG_ANSWER_SPEED>
Avg Aband	The average time a caller waited before hanging up.	<i>ABNTIME/ABNCALLS</i> <AVG_ABANDON_TIME>
Agents: Avail	The number of agents who are available to receive calls to the split.	<i>AVAILABLE</i>
Agents: ACD	The number of agents handling inbound and outbound ACD calls to this split. This does not include direct agent calls. If the switch has the ASAI feature, this may include calls initiated by an adjunct processor or host computer.	<i>ONACD</i>
Agents: ACW	The number of agents who are in the after call work mode for this split.	<i>INACW</i>

Table 4-9. Split Graph Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Agents: AUX	The number of agents who are in the auxiliary work mode including agents who are handling AUXIN or AUXOUT calls in all splits.	<i>INAUX</i>
Calls Abandoned	The number of calls to the split that were abandoned before being answered by an agent. This includes calls that are ringing at an agent voice terminal but does not include direct agent calls. If a call is queued to more than one split (Generic 3 only), an abandon is only pegged for the first split to which the call is queued.	<i>ABNCALLS</i>
% Within Service Level	The percentage of calls to the split that were answered by an agent within the predefined acceptable service level for this split. Calls to the split include calls that were abandoned and calls that were not answered, but do not include direct agent calls. Calls that were not answered may include: forced busy calls, forced disconnect calls, calls redirected to another destination, and calls queued to more than one split and answered in another split.	<i>100*(ACCEPTABLE/ CALLSOFFERED)</i> <PERCENT_SERV_LVL_SPL>

Queue Graph

The Queue Graph report shows the number of calls waiting and the oldest call waiting in up to three splits. With this report, you can quickly evaluate and compare one split's workload and call-handling performance against the performance of two other splits and then determine how to reassign agents or reconfigure your ACD to balance workloads and/or reduce abandoned calls.

Things to Know About This Report

- This graph is equivalent to the real-time Split Status report, but for three splits. You can use the numbers from the real-time Split Status report for each split to compare with the Queue Graph report.
- See Chapter 2, "User Basics," for the action list procedures (including *Running* reports), common rules for field entry items, and field editing information.

Prerequisite System Administration

- You must have purchased the Graphics option to see this report.
- You must have **read** permission for the reports subsystem and all splits that you want to view. See Chapter 10, "User Permissions — Feature Access and Split Access."

Relationships to Other Subsystems

User Permissions

The CMS administrator assigns each CMS user a minimum refresh rate in the User Permissions — User Data window. The default for the Refresh rate in seconds field in this window is the minimum refresh rate assigned for that user plus 15 seconds. If the user enters a rate which is less than the minimum refresh rate assigned, an error will display in a message window.

Dictionary

For split names to appear on this report, names must be defined and entered in the Dictionary subsystem.

Queue Graph Input Window

From this window, you will set the parameters for the Queue Graph report. You must fill out this window to run the report. Field descriptions follow the window.

03/20/92 08:30 AM Call Management System Windows: 1 of 1

Rpts: Real: Graph: Queue Input ACD1

Run

Maximum calls in queue: _____

Maximum time oldest call waits (Secs): _____

First split: _____

Calls in queue threshold: _____

Oldest call waiting threshold (Secs): _____

Second split: _____

Calls in queue threshold: _____

Oldest call waiting threshold (Secs): _____

Third split: _____

Calls in queue threshold: _____

Oldest call waiting threshold (Secs): _____

Refresh rate in seconds: _____

Figure 4-24. Queue Graph Input Window Example

Field Descriptions

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 will equal this number when they are at maximum height.

Maximum time oldest call waits (Secs):

Enter the maximum amount of time in seconds that the oldest call in queue is likely to wait.

This number appears under the Oldest Call Waiting report heading on the graph report and is used to scale the bars in this part of the graph. The bars under Oldest Calls Waiting heading on the graph report will equal this number when they are at maximum height.

First split:

Enter the name or number of the first split that you want to view in this graph.

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.

The bar for this first split under the Calls Waiting report heading will change 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.

The bar for the first split under the Oldest Call Waiting report heading will change color/intensity when any call waiting in queue meets or exceeds this threshold.

Second split:

Enter the name or number of the second split that you want to view in this graph.

The name appears under the middle 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 second split.

The bar for this second split under the `Calls Waiting` report heading will change 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 second split.

The bar for the second split under the `Oldest Call Waiting` report heading will change color/intensity when any call waiting in queue meets or exceeds this threshold.

Third split:

Enter the name or number of the third split that you want to view in this graph.

The name appears under the right-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 third split.

The bar for this third split under the `Calls Waiting` report heading will change 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 third split.

The bar for the third split under the `Oldest Call Waiting` report heading will change color/intensity when any call waiting in queue meets or exceeds this threshold.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Queue Graph Report Example

A description of each report item follows the report example.

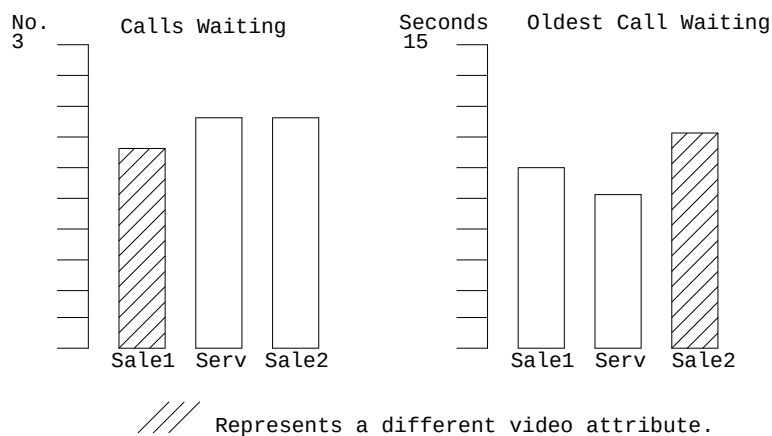


Figure 4-25. Queue Graph Report Example

Table 4-10. Queue Graph Report Description



NOTE:

All database items and calculations apply to the *psplit* table for the previous interval or *csplit* table for the current interval.

Report Heading		Database Item, Calculation, or <Calculation Name>
No. Calls Waiting	The number of calls in queue waiting to be answered. This includes split calls that are ringing at an agent voice terminal but does not include direct agent calls (Generic 3 only).	<i>INQUEUE+INRING</i>
Oldest Call Waiting	The number of seconds the oldest call in the split's queue or ringing call has waited. This does not include direct agent calls.	<i>OLDESTCALL</i>
Split(s)	Name or number of the split(s) selected for this report.	<i>SYN(SPLIT)</i>

Split Call Profile Graph

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

Things to Know About This Report

- Calls are displayed in ten separate bars; each bar represents a progressively longer wait time for the call.
- The bars representing abandoned calls vary in color/intensity depending on how the number of abandons compares to the upper and lower thresholds you set for abandons. The size of the abandoned bars, however, do not change.

Prerequisite System Administration

- You must first define your acceptable service level and service level increments for this split in the Split Call Profile Setup window. For more information, see Chapter 9, “ACD Administration — Split Call Profile Setup.”



CAUTION:

If you change the increments, data will be distorted for the interval in which you made the change. CMS deletes the split call profile data already collected for that interval and only keeps the split call profile data that occurred in that interval after the change. Then CMS tries to combine the split call profile data gathered both before and after the change into a single daily record of split call profile data. As a result, some data is 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 Call Profile report will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 1, 5, 7, 10 for the date of the change.

To avoid misleading split 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.

Split Call Profile Graph Input Window

From this window, you will set the parameters for the Split Call Profile Graph report. You must fill out this window to run the report.

03/20/92 08:30 AM Call Management System Windows: 1 of 4

Rpts: Real: Graph: Split Call Profile Input ACD1

Run

Split: _____

Maximum number of calls answered: _____

First calls abandoned threshold: _____

Second calls abandoned threshold: _____

Refresh rate in seconds: _____

Figure 4-26. Split Call Profile Graph Input Window Example

Field Descriptions

Split:

Enter the split name or number that you want to view in this graph.

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 will equal this number when they are at maximum height.

First calls abandoned threshold:

Enter the number of calls that will 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 will change color/intensity when this first threshold is met or exceeded.

Second calls abandoned threshold:

Enter the number of calls that will separate the Caution condition from the Warning condition.

This number must be greater than or equal to the number entered in the First calls abandoned threshold field. The abandoned bars will change color/intensity when this second threshold is met or exceeded.

Split Call Profile Graph Report Example

A description of each report item follows the report example in the Split Call Profile Graph Description table.

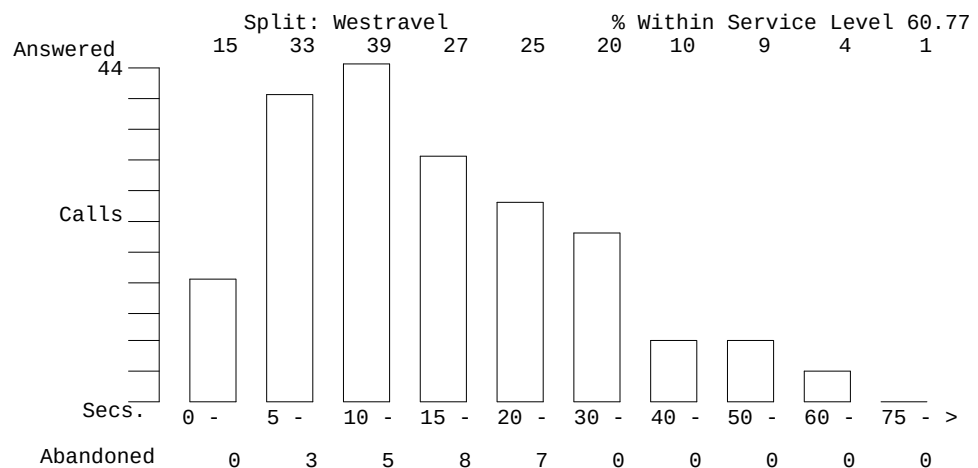


Figure 4-27. Split Call Profile Graph Report Example

Table 4-11. Split Call Profile Graph Description

**NOTE:**

All database items and calculations apply to the *psplit* for the previous interval or *csplit* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Split	The name or number of the split selected for this report.	SYN(SPLIT)
% Within Service Level	The percentage of calls to the split that were answered by an agent within the predefined acceptable service level. Calls to the split include calls that were abandoned and calls that were not answered, but do not include direct agent calls. Calls that were not answered may include forced busy calls, forced disconnect calls, calls redirected to another destination, and calls queued to more than one split and answered in another split.	100*(ACCEPTABLE/ CALLSOFFERED) <PERCENT_SERV_LVL_SPL>
Ans	The lower and upper limit in seconds for each service level increment. In this increment, the number of calls to the split that an agent in this split answered. This does not include direct agent calls (Generic 3 only).	ACDCALLS1-10
Secs	The lower and upper limit in seconds of each service level increment. Each increment of seconds represents a progressively longer wait time for a call in queue, and each increment can be a different length.	PERIOD1-9
Aban	The number of calls to the split that were abandoned in this increment. This does not include direct agent calls (Generic 3 only).	ABNCALLS1-10

VDN Call Profile Graph Report

NOTE:

If you have not purchased the CMS Vectoring feature and the Graphics package, you will not see this menu item.

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

Things to Know About This Report

- An answered VDN call is any call answered by a measured agent. A VDN connected call is any other call answered outside the ACD, like an attendant (a nonACD call).
- The bars representing answered/connected calls vary in height according to the number of answered/connected calls.
- The bars representing abandoned calls vary in color depending on how the number of abandons compares to the upper and lower thresholds you set for abandons. The bars, however, do not change size.

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) will be used for all increments (therefore, all calls will appear in the first increment). For more information, see Chapter 9, “ACD Administration — VDN Call Profile Setup.”



CAUTION:

If you change the increments, data will be distorted for the interval in which you made the change. 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 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 is 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 will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 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.

VDN Call Profile Graph Input Window

From this window, you will set the parameters for the VDN Call Profile Graph report. You must fill in the report input window to run the report. Field descriptions for the window follow.

03/13/92 8:30 AM Call Management System Windows: 1 of 1

Rpts: Real: Graph: VDN Call Profile Input ACD1

VDN: _____ Run

Maximum number of calls ans/conn: _____

First calls abandoned threshold: _____

Second calls abandoned threshold: _____

Refresh rate in seconds: _____

Figure 4-28. VDN Call Profile Graph Input Window Example

Field Descriptions

VDN:

Enter the name or number of the VDN you want the report for.

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 nonACD calls during an intrahour interval within any single service level increment. The bars in the graph will equal this number when they are at maximum height.

First calls abandoned threshold:

Enter a number of abandoned that will 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 will change color/intensity when this first threshold is met or exceeded.

Second calls abandoned threshold:

Enter a number of abandoned calls that will separate the Caution condition from the Warning condition.

This number must be greater than or equal to the number entered in the First calls abandoned threshold field. The abandoned bars will change color/intensity when this second threshold is met or exceeded.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

VDN Call Profile Graph Report Example

A description of each report item follows the report example.

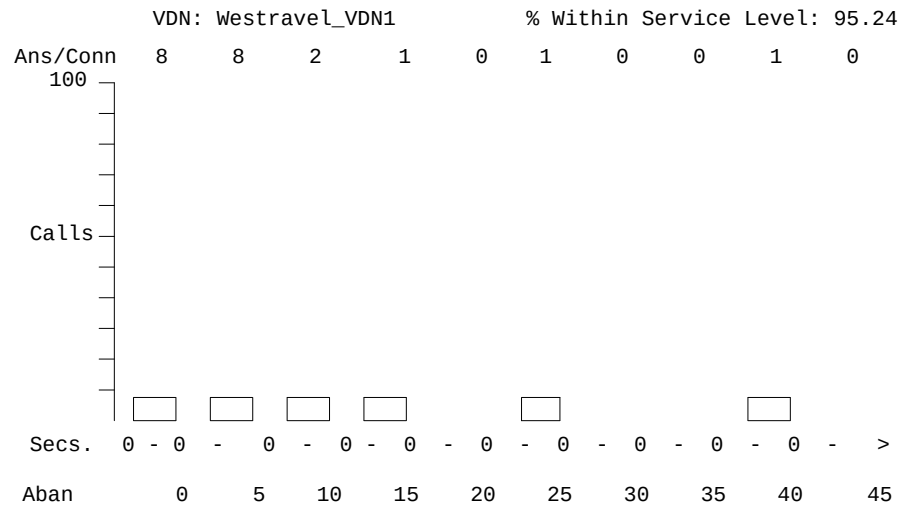


Figure 4-29. VDN Call Profile Graph Report Example

Table 4-12. VDN Call Profile Graph Report Description



NOTE:

All database items and calculations apply to the *pvdn* for the previous interval or *cvdn* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
VDN	The number or name of the VDN for which the report shows data (selected in the Report Input window).	VDN
% Within Service Level	The percentage of calls to the VDN that were answered/connected within the service level (as specified in the VDN Call Profile Setup window). Calls to the VDN may result in ACD, direct agent, and nonACD calls.	100 * ACCEPTABLE / INCALLS
Ans/Conn	The number of calls to the VDN that were answered by an agent or connected to a nonACD destination within each of the service level increments. Calls in each increment are represented both by bars and by numbers.	ANSCONNCALLS1-10
Secs.	The lower and upper limit in seconds of each service level increment (as defined in the ACD Administration: VDN Call Profile Setup window). These increments represent progressively longer wait time segments in which calls may be answered, connected, or abandoned.	PERIOD1-9
Aban	The number of calls to the VDN that were abandoned within each of the service level increments. Calls in each increment are represented by numbers. Bars do not change in height, but change color when an upper or lower threshold is reached. With Generic 2.2 and Generic 3 switches, this is all VDN calls abandoned. With Generic 2.1 and System 85 switches, this is ACD calls abandoned.	ABNCALLS1-10

Vector Report

Purpose

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

Switch Features That Affect Report Data

- For a Generic 2 with the ASAI Gateway feature, calls routed to the gateway by way of a “route to” command are reported as “Vector Flow Out.” These calls are **not** be included as abandons or answered calls in the vector reports because they are neither answered nor abandoned while connected to the vector.

Vector Input Window

You must fill in the report input window to run the report. Field descriptions for the window follow.

03/13/92 8:30 AM Call Management System		Windows: 1 of 1
Rpts: Real: Vector Report Input ACD1		
Vector(s):	_____	Run

Refresh rate in seconds: ____		

Figure 4-30. Vector Input Window Example

Field Descriptions

Vector(s):

Enter the name(s) or number(s) of the vector(s) you want included in the report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

Vector Report Example

A description of each report item follows the report example.

Vector	Calls Wait	Avg Speed Answer	Calls Aban	Aban Time	ACD Calls	Busy/Disc	Vector Flow In	Vector Flow Out
Billing	13	1:06	0		24	0	0	0
Order_	1	:07	0		24	0	0	0
Compla	13	1:05	0		23	0	0	0
Legal	1	:07	0		24	0	0	0
Educat	20	:22	0		123	0	0	0

Figure 4-31. Vector Report Example

Table 4-13. Vector Report Description



NOTE:

All database items and calculations apply to the *pvector* table for the previous interval or the *cvector* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Vector	The number or name of the vector for which the report shows data (selected in the Report Input window).	VECTOR
Calls Wait	The number of calls currently being processed by the vector. This includes calls ringing a voice terminal and may include ACD, nonACD, and direct agent calls.	INPROGRESS-ATAGENT
Avg Speed Answer	The average time calls waited in queue or ringing before an agent answered. This includes direct agent calls (Generic 3 only), nonACD calls, and calls answered by AUDIX and Message Center agents, but only includes calls that were answered as a result of processing by this vector.	ANSTIME / ACDCALLS <AVG_ANSWER_SPEED>

Table 4-13. Vector Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Calls Aban	The number of calls that were abandoned while being processed by this vector. This includes direct agent calls and calls that were abandoned while queued to a split or while ringing a voice terminal.	ABNCALLS
Aban Time	The average time a caller waited before hanging up.	ABNTIME / ABNCALLS <AVG_ABANDON_TIME>
ACD Calls	The number of calls that were answered by an agent (in a main, backup, route to split, AUDIX, or Message Center split) as a result of processing by the vector. This includes direct agent calls (Generic 3 only).	ACDCALLS
Busy/Disc	The number of calls the vector gave a forced busy signal or disconnect.	BUSYCALLS + DISCCALLS <BUSY_DISCONNECT>
Vector Flow In	The number of calls that have been redirected from within the PBX to the vector via a VDN assigned to the vector. This includes calls redirected to the vector because of a "route to VDN" or "go to vector" command. Calls are counted regardless of whether they were answered while being processed by the vector, were abandoned, or were routed to some other destination.	INFLOWCALLS
Vector Flow Out	The number of calls that were redirected to another destination or another vector by way of a "route to," "go to vector," or "adjunct routing" command (Generic 3 only). This includes calls routed to destinations within and outside of the PBX. Calls that route to a split are not considered vector flow out calls.	OUTFLOWCALLS

VDN Report

Purpose

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

Switch Features That Affect Report Data

- For a Generic 2 with the ASAI Gateway feature, calls routed to the gateway by way of a “route to” command are reported as “Vector Flow Out.”

VDN Input Window

You must fill in the report input window to run the report. Field descriptions for the window follow.

03/13/92 8:30 AM Call Management System		Windows: 1 of 1
Rpts: Real: VDN: Report Input ACD1		
VDN(s): _____		Run

Refresh rate in seconds: ____		

Figure 4-32. VDN Input Window Example

Field Descriptions

VDN(s):

Enter the name(s) or number(s) of the VDN(s) you want included in the report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

VDN Report Example

A description of each report item follows the report example.

VDN	Calls Wait	Avg Speed Answer	Calls Aban	Aban Time	ACD Calls	Avg ACD Talk	Busy/ Disc	VDN Flow In	VDN Flow Out
Billin	16	:40	0		40	4:01	0	0	0
Order_	2	:07	0		25	4:01	0	0	0
Compla	16	:38	0		39	4:01	0	0	0
Legal	2	:06	0		25	4:01	0	0	0
Educat	20	:36	0		37	4:01	0	0	0

Figure 4-33. VDN Report Example

Table 4-14. VDN Report Description

**NOTE:**

All database items and calculations apply to the *pvdn* table for the previous interval or the *cvdn* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
VDN	The number or name of the VDN for which the report shows data (selected in the Report Input window).	VDN
Calls Wait	The number of calls currently being processed by the vector associated with the VDN. This includes calls ringing a voice terminal and may include nonACD and direct agent calls.	INVECTOR+INRING
Avg Speed Answer	The average time that calls to the VDN waited before being answered. This includes direct agent calls (Generic 3 only), nonACD calls, and calls answered by AUDIX and Message Center agents, but only includes calls that were processed by the vector associated with the VDN. Does not include route to VDN or route outside the PBX.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>

Table 4-14. VDN Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Calls Aban	The number of calls to the VDN that were abandoned.	ABNCALLS
Aban Time	The average time a caller waited before hanging up.	ABNTIME/ABNCALLS <AVG_ABANDON_TIME>
ACD Calls	The number of calls to the VDN that were answered by an agent (in a main, backup, route to split, AUDIX, or Message Center split). This includes direct agent calls (Generic 3 only).	ACDCALLS
Avg ACD Talk	The average talk time (does not include hold time) for all split and direct agent calls (Generic 3 only) processed by the vector associated with the VDN.	ACDTIME/ACDCALLS <AVG_ACD_TALK_TIME>
Busy/Disc	The number of calls to the VDN that received a forced busy signal or disconnect.	BUSYCALLS+DISCCALLS <BUSY_DISCONNECT>
VDN Flow In	The number of calls to the VDN that were redirected from within the PBX. Calls are counted regardless of whether they remained connected to the VDN, were abandoned, or were routed to some other destination.	INFLOWCALLS
VDN Flow Out	The number of calls to the VDN that were redirected to another VDN or a destination outside the PBX by way of a "route to" or "adjunct routing" command (Generic 3 only). This does not include calls redirected by way of a "go to vector" command (because those calls stay in the same VDN).	OUTFLOWCALLS

VDN Call Profile Report

Purpose

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

Things to Know About This Report

- Calls are displayed in ten columns, with each column representing a progressively longer wait time.

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) will be used for all increments (therefore, all calls will appear in the first increment). For more information, see Chapter 9, “ACD Administration — VDN Call Profile Setup.”



CAUTION:

If you change the increments, data will be distorted for the interval in which you made the change. 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 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 is 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 will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 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.

VDN Call Profile Input Window

You must fill in the report input window to run the report. Field descriptions for the window follow.

03/13/92 8:30 AM Call Management System Windows: 1 of 1

Rpts: Real: VDN: Call Profile Input ACD1

VDN(s): _____ Run

Refresh rate in seconds: ____

Figure 4-34. VDN Call Profile Input Window Example

Field Descriptions

VDN:

Enter the name or number of the VDN you want included in the report.

Refresh rate in seconds:

Enter the number of seconds (3 to 600) to specify how long 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, check with your CMS administrator.

VDN Call Profile Report Example

A description of each report item follows the report example.

	VDN: Westravel_VDN												% Within Service Level: 92.59														
Secs.	0	- 5	- 10	- 15	- 20	- 25	- 30	- 35	- 40	- 45	-	>															
Ans/Conn	22		7		13		3		2		3		0		0		1		3								
Abandoned	0		0		0		0		0		0		0		0		0		0								
Total Calls Ans/Conn													54	Total Calls Abandoned													0
Average Speed of Ans/Conn													:12	Average Time to Abandon													
Percentage Ans/Conn													100.00	Percentage Abandoned													0.00

Figure 4-35. VDN Call Profile Report Example

Table 4-15. VDN Call Profile Report Description



NOTE:

All database items and calculations apply to the *pvdn* table for the previous interval or the *cvdn* table for the current interval.

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
VDN	The number or name of the VDN for which the report shows data (selected in the Report Input window).	VDN
% Within Service Level	The percentage of calls to the VDN that were answered/connected within the service level (as specified in the VDN Call Profile Setup window). Calls to the VDN may result in ACD calls, direct agent calls, and nonACD calls.	100 * (ACCEPTABLE / INCALLS)
Secs.	The lower and upper limit in seconds of each service level increment. The call profile increments, as specified in the VDN Call Profile window. These increments represent progressively longer wait time segments in which calls may be answered or abandoned.	PERIOD1-9
Ans/Conn	The number of calls to the VDN that were answered by an agent or were connected to a nonACD destination within each of the service level increments. With Generic 2.2 and Generic 3, <i>connected</i> means calls that are answered at a non-ACD destination. With Generic 2.1 and System 85, <i>connected</i> means calls ringing at a non-ACD destination. This includes direct agent calls.	ANSCONNCALLS1-10

Table 4-15. VDN Call Profile Report Description (Contd)

Report Heading	Description	Database Item, Calculation, or <Calculation Name>
Aban	The number of calls to the VDN that were abandoned within each of the service level increments. This includes direct agent calls and calls that were abandoned while queued to a split or while ringing a voice terminal. With Generic 2.2 and Generic 3 switches, this is all VDN calls abandoned. With Generic 2.1 and System 85, this is ACD calls abandoned.	ABNCALLS1-10
Total Calls Answered/Connected	The total number of calls to the VDN that were answered by an agent or were connected to a nonACD destination. This includes direct agent calls.	ACDCALLS + CONNECTCALLS
Average Speed of Answer/Connect	The average time that calls to the VDN waited before being answered. This includes direct agent calls (Generic 3 only), nonACD calls, and calls answered by AUDIX and Message Center agents, but only includes calls that were processed by the vector associated with the VDN.	(ANSTIME + CONNECTTIME)/ (ACDCALLS + CONNECTCALLS)
Percentage Answered/Connected	The percentage of calls to the VDN that were answered or connected within the service level. This includes direct agent calls.	100*((ACDCALLS + CONNECTCALLS)/INCALLS) <PERCENT_VDN_ANSCONN> <PERCENT_VDN_ANSCONN>
Total Calls Abandoned	The total number of calls to the VDN that were abandoned. This includes direct agent calls and calls that were abandoned while queued to a split or while ringing a voice terminal.	ABNCALLS
Average Time to Abandon	The average time a caller waited before hanging up.	ABNTIME / ABNCALLS <AVG_ABANDON_TIME>
Percentage Abandoned	The percentage of calls to the VDN that were abandoned.	100*(ABNCALLS/INCALLS) <PERCENT_VDN_ABAN>

Historical Reports

5

General Information

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, trunk/trunk groups, VDN, and vector activities, such as number of ACD calls, abandoned calls, average talk time, average speed of answer, etc.

Things to Know About All Historical Reports

- Totals for reports will be on the top line of the report under the headings.
- Historical reports are available in interval, daily, weekly, and monthly versions. Not all reports are available in all versions. The section on each report will give the available report versions.
- 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 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 numerical data is longer than the length of the field in which it is to appear, the field will be filled with asterisks (*) and the data will not be printed. You can modify the standard reports to increase the field lengths using the Custom Reports screen. See the *Call Management System Custom Reports* (585-215-513) document for this information.
 - If your printer jams, you must resubmit print requests that did not print.
 - See Chapter 2, "User Basics," for the action list procedures Run and Set dest, common rules for field entry items, and field editing information.

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, 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 Call Profile or VDN Call Profile reports, you must first define your acceptable service level and service level increments for the split(s) and VDN(s) in the Split Call Profile Setup and VDN Call Profile Setup window in the ACD Administration subsystem (see Chapter 9, “ACD Administration”).

To get an Agent Trace report, you must first start collecting agent data. To start an agent trace, see Chapter 9, “ACD Administration — Activate Agent Trace.”

User Permissions

For a report to display data, you must have **read** permission for the split, 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 will receive data for Splits 1 and 4 but not for Split 5 because you do not have read permission for that split. See Chapter 10, “User Permissions,” for more information.

System Setup

You will 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 11, “System Setup — Agent Trace Record Contents.”

Relationships to Other Subsystems

Historical reports interact as stated with the following subsystems.

Dictionary

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

Timetable

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.

Shortcut

You can place any historical reports on a shortcut.

System Setup

The following windows relate to Historical reports.

- You can change the amount of data that CMS stores using the "Data Storage Allocation" window in the System Setup subsystem. See Chapter 11, "System Setup — Data Storage Allocation," for more information.
- 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 CMS administrator, or view the Storage Intervals window. Also see Chapter 11, "System Setup — Storage Intervals," for more information.
- If you are not going to use the default storage interval values, you should specify your storage intervals in the Storage Intervals window to run historical reports. See Chapter 11, "System Setup — Storage Intervals," for more information.

Interactions With Switch Features

Historical reports interact as stated with the following switch features.

Direct Agent Calling (Generic 3 only)

Direct agent calls are tracked separately from other ACD calls in the agent and split tables. Since direct agent calls are not split calls but are calls to a specific agent, most of the direct agent data is collected in the agent tables.

Standard historical agent reports sum together split ACD and direct agent calls. For example, *ACD Calls* include both split and direct agent calls. Agent time is summed for split ACD and direct agent calls. Therefore, ACD time is time spent on any ACD call, whether split or direct. ACW time is after call work time for both split and direct agent calls. You can report direct agent database items and calculations separately if you want to create your own custom reports. See Chapter 7, "Dictionary," for database items and calculations; see the CMS Custom Reports (585-215-513) document for information on creating and using custom reports.

Standard split reports (for the split as a whole, not for individual agents in the split) do not include direct agent call data. **ACD Calls** in split reports are split ACD calls.

Multiple Call Handling (Generic 2 only)

The Multiple Call Handling switch feature allows an ACD agent to put a call on hold and to become available to take another ACD call. CMS tracks the hold state as a call state, not an agent state. This means the time calls spend on hold is counted for each call. For example, an agent who places two calls on hold for 5 minutes to answer a third will accrue 10 minutes' time on hold for the two calls in the space of only 5 minutes on the clock.

Hold Tracking (Generic 3, Generic 2, and System 85 R2V4)

CMS will track and report calls in the hold state for Generic 2 and System 85 Releases R2V4 and later. With Multiple Call Handling, the hold state is tracked for calls even if the feature is not active for a particular split on the switch. This means that as long as the feature is on the switch, CMS will be notified when an agent puts a call on hold. With Generic 3, CMS tracks **all** calls that are put on hold. With Generic 2 and System 85 R2V4, CMS tracks **split** calls that are put on hold.

Multiple-Split Queuing

On a Generic 3 or Generic 1, calls can be queued to as many as three splits simultaneously. For the first split to which a call is queued (primary split), CMS pegs an answer, outflow (leaves vector processing or is answered by an agent in another split), or abandon. For the second or third split to which a call is queued, CMS pegs an answer and an inflow if the call is answered in that split. If the call is answered in another split, the call outflows, or the caller abandons, CMS pegs a dequeued. When a call is queued to multiple splits and is then answered by an agent in one of those splits, the call is counted as an answered call for the answering split and as a *dequeued* call for all other splits to which the call was queued at the time it was answered.

In the Multiple-Split Queuing example (Figure 5-1), you see the call queue to Split 1 first, then queue to Split 2 after 15 seconds, then after another 10 seconds, the call enters Split 3's queue. The call is now queued to Splits 1, 2, and 3 at the same time. See the figure for call disposition for all three splits if the call abandoned, was answered, or routed to a VDN.

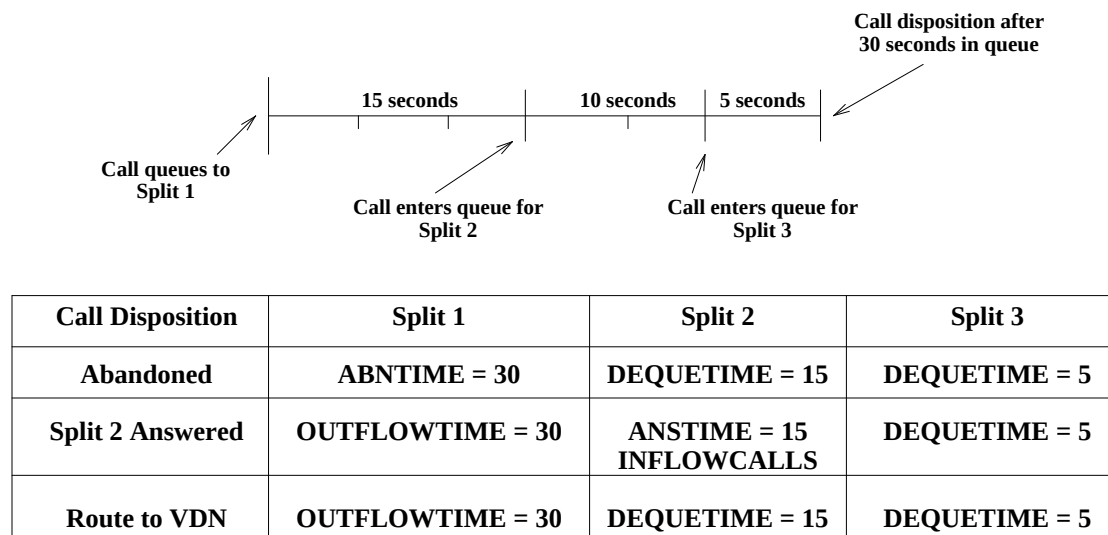


Figure 5-1. Multiple-Split Queuing Example

Agents in Multiple Splits

In historical reports, agents in multiple splits are treated in one of two ways. Most reports (for example, Agent Summary by Interval) present the sum of all work the agent performed in any split. A few reports (for example, Agent Interval by Split) present the work an agent did broken out by each split in which the agent worked.

⇒ NOTE:

AUXIN and AUXOUT calls are attributed to the split which the agent has been logged into the longest, since AUX time is not associated with a call. However, ACW time and calls **are** associated with an ACD call and are broken out by split.

Ringling

CMS will report the amount of time agent(s) let ACD calls ring at the voice terminal on historical reports for Generic 2 and Generic 3 switches.

Transfer Tracking

CMS tracks and reports transfers of calls by an agent. The agent and split reports display these transfers.

⇒ NOTE:

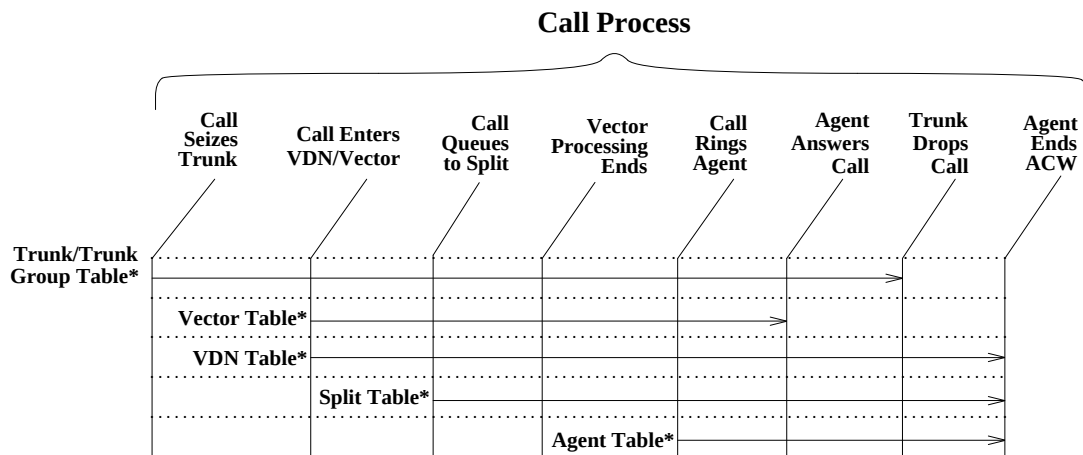
Transfers into a split are not tracked explicitly. If direct agent calling is enabled, then some of those calls may represent transfers into the split.

Call Pickup

CMS tracks ACD calls that are answered by an agent using the Call Pickup feature as AUXIN calls.

How CMS Tracks ACD Data

Using the data in the real-time and historical databases, CMS can generate standard reports which allow you to track your call center's activities. CMS tracks the various agent, split, trunk, trunk group, vector, and VDN activities at different points in the call process. Figure 5-2 shows how CMS tracks these call activities from the time the call seizes a trunk till an agent ends after call work (ACW) activity.



*The CMS database table that stores the call data. This is also the point at which CMS starts collecting call data, and the arrow is the point at which CMS stops collecting data. Also, with vectoring, the "Stop" command stops vector processing.

Figure 5-2. How CMS Tracks a Call

The agent table starts tracking non-ACD calls when the agent answers or completes dialing.

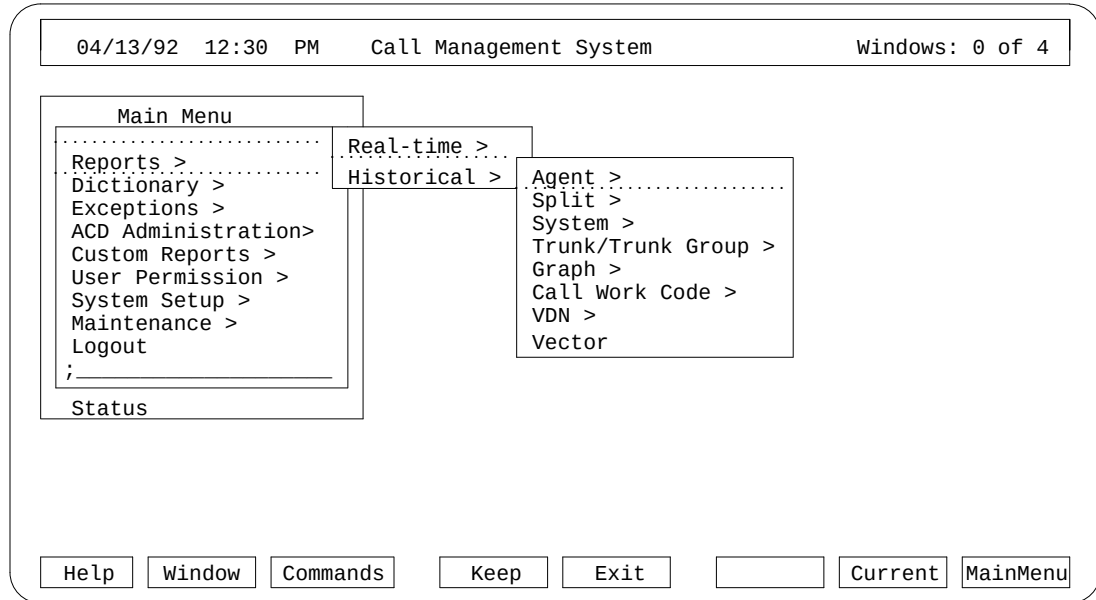
The split table ends processing when ACW for a completed call ends, the call abandons, or the call leaves the queue and is forwarded to another destination (e.g., intraflow).

Vector processing continues until the caller is answered by an ACD agent, abandons, or routes to a station, trunk, or another VDN or vector. Calls that route to a split do not leave vector processing (G3 only).

VDN processing ends when ACW for a ACD completed call ends, the call abandons, the call routes to a trunk or VDN, or the call is transferred.

Historical Reports Menu

From this menu, you can view any historical report. If you have purchased the CMS Vectoring package and/or the Graphics package, you will also be able to view vectoring and graph reports.



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 11, “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 only contain summarized daily data for a complete week. The same is true for monthly reports. The monthly tables only contain summarized daily data for a complete month.

Items That Can Affect Report Data

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

Switch Clock



CAUTION:

*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 will be 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) will be 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 will 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, CMS puts the agent in the UNKNOWN state while the link is down, not the STAFFED state. Therefore, if you compare staffed time on the historical Split Daily report with the Login/Logout time, you could see a difference.

Backing Up Agent Login/Logout Tables

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	2/13/92 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	2/13/92 8:05AM	2/17/92 4:30PM
Smith, M	2/17/92 8:00AM	2/17/92 4:30PM

Service Level Increments for Call Profile Reports



CAUTION:

If you change the service level increments after initially defining them, data will be distorted for the interval in which you made the change. CMS deletes the split/VDN call profile data already collected for that interval and only keeps the split/VDN call profile data that occurred in that interval after the change. Then CMS tries to combine the split/VDN call profile data gathered both before and after the change into a single daily record of split/VDN call profile data. As a result, some data is placed in the wrong time intervals. See the appropriate Call Profile report for Splits and VDNs for more information.

Agent Reports

From the Agent Reports menu (Figure 5-3) you can get specific information on 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 in the Agent Split report, or looking at how a group of agents is performing in a the Group Summary report. Each agent report is described.

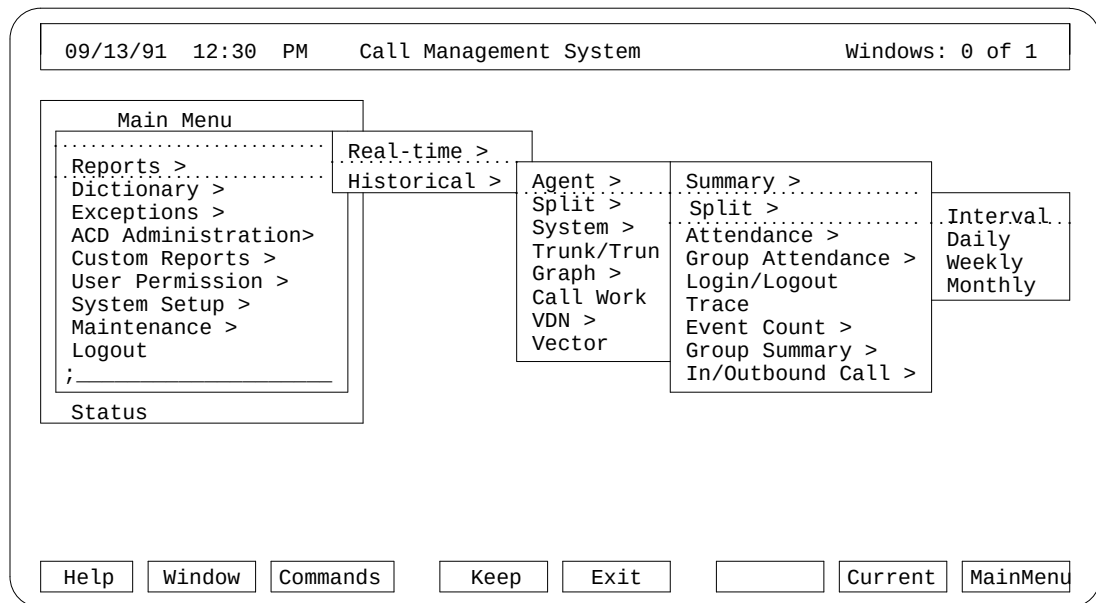


Figure 5-3. Agent Reports Menu

Agent States

The following list explains what the agent states are.

- **ACD**

The extension is engaged in an ACD call (with the agent either talking to the caller or the call waiting on hold).

- **Available (AVAIL)**

The extension is able to accept an ACD call. An extension is AVAIL in AUTO-IN any time it is not on a call. An extension is also AVAIL in MANUAL-IN immediately after the MANUAL-IN button is pressed.

- **After Call Work (ACW)**

The agent is engaged in bookkeeping, data entry, or other work related to the previous call, and is not available to receive another call. The extension enters after-call work after an ACD call on MANUAL-IN. On a Generic 3/Generic 1, the agent can select the state with the AFTER CALL WORK button, even when the agent has been in AUTO-IN mode.

An agent's time in ACW includes time an agent is on an incoming or outbound call while in ACW, as well as time in ACW when the agent is not connected to any calls.

- **Auxiliary Work (AUX)**

The agent is engaged in non-ACD work, is on break, in a meeting, or at lunch. The agent presses the AUX WORK button when the agent wants CMS to recognize the extension as staffed, but does not want the ACD to distribute calls to the voice terminal.

On Generic 3/Generic 1, when an agent logs into more than one split, the agent will generate excessive AUX-WORK time since CMS shows the agent to be in AUX-WORK in one split while the agent is handling an ACD call in another split. Therefore, to get an accurate account of AUX-WORK time for an agent in a split, the agent's ACD time for the other splits should be subtracted from the agent's AUX-WORK in the split in question.

Directions of AUX WORK are:

- **IN**

- The extension received an extension-in call while in AUX WORK. If an extension in AVAIL receives an extension-in call, the state changes to AUXIN.

- **OUT**

- The agent placed an outgoing call while in AUX WORK. If an agent places an extension-out call while in AVAIL, the state changes to AUXOUT.

An agent's time in AUX includes time in AUXIN and AUXOUT, as well as time in AUX when the agent is not connected to any calls.

- **Unstaffed (UNSTAF)**

The agent is not logged in and being tracked by CMS.

- **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 call, working on a call for another split, or has put a call on hold and has not chosen another work mode.

- **UNKNOWN**

CMS does not recognize the current state. For example, the link is down, or an error has been detected. UNKNOWN remains until the condition is cleared (link comes up) and/or the agent completes the current ACD call and any associated ACW, or a current agent state message is sent to CMS from the switch.

- **RING**

The time a call rings at an agent's voice terminal after leaving the queue and before the agent answers the call. *Available only with Generic 2, Load 3.1 or later with ring state enabled or Generic 3.* With this state, you can determine actually how long a call rings before an agent answers and thereby determine the actual time a caller waits in queue and waits while the call is ringing to better analyze your call center's performance.

Summary Report

The Agent Summary report shows the activities and performance of an individual agent.

Things to Know About This Report

- You can obtain the Agent Summary report in interval, daily, weekly, or monthly versions.
- This report represents the totals over the specified time period for all splits the agent was logged into.

Agent Summary Input Window

You must fill out the Agent Summary report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

01/21/92 12:30PM Call Management System Windows: 1 of 4

Reports: Historical: Agent Summary: Interval acd1

Agent: Smith, H Run
Date: 1/15/92 Set dest
Times: 11:05AM-12:05PM

Destination is printer

Help Window Commands Keep Exit Current MainMenu

Figure 5-4. Agent Summary Interval Input Window Example

Field Descriptions

Agent : (Interval, Daily, Weekly, and Monthly)

Enter the appropriate agent name or login ID.

Date : (for Interval) or **Dates :** (for Daily, Weekly, and 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, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- For Daily, Weekly, and Monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times : (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Agent Summary Report Examples

A description of each report item follows the report example in the Agent Summary Report Description table.

Agent Summary by Interval

Date: 1/15/92
Agent: Split01 Agent01

Printed: 1/21/92 2:44 PM
ACD: NASPS ACD1

Date	ACD Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	ACD	ACW	Ring	AUX	Avail	Staff	Trans Out	Calls Held	Avg Hold Time
Totals:	18	1:00	2:01	0		0		18:01	37:37	00:00	00:00	04:22	1:00:00	0	0	
11:05-11:20AM	4	1:00	1:54	0		0		4:00	9:23	00	00	1:37	15:00	0	0	
11:20-11:35AM	5	1:00	2:06	0		0		5:00	8:42	00	00	1:18	15:00	0	0	
11:35-11:50AM	5	1:00	2:02	0		0		4:30	9:54	00	00	1:36	15:00	0	0	
11:50-12:05PM	4	1:00	2:03	0		0		4:31	9:38	00	00	1:51	15:00	0	0	

Daily Agent Summary

Agent: Split01 Agent01

Printed: 1/21/92 2:45 PM
ACD: NASPS ACD1

Date	ACD Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	ACD	ACW	Ring	AUX	Avail	Staff	Trans Out	Calls Held	Avg Hold Time
Totals:	796	1:00	2:00	0		0		13:29:07	26:56:51	00:00	2:05:59	16:35:30	59:21:47	0	0	
1/13/92	130	1:00	1:59	0		0		2:13:39	4:24:21	00:00	1:23:07	8:13:54	16:19:23	0	0	
1/14/92	159	1:00	1:59	0		0		2:39:03	5:17:57	00:00	1:12:01	2:11:15	10:20:50	0	0	
1/15/92	185	1:00	2:01	0		0		3:06:07	6:12:01	00:00	1:15:00	2:39:24	12:13:48	0	0	
1/16/92	157	1:00	2:01	0		0		2:42:44	5:25:39	00:00	1:03:00	1:57:11	9:13:25	0	0	
1/17/92	165	1:00	2:00	0		0		2:47:34	5:36:53	00:00	1:12:51	2:33:46	11:14:21	0	0	

Weekly Agent Summary

Agent: Split01 Agent01

Printed: 1/21/92 2:46 PM
ACD: NASPS ACD1

Week Starting	ACD Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	ACD	ACW	Ring	AUX	Avail	Staff	Trans Out	Calls Held	Avg Hold Time
Totals:	8182	1:00	2:00	0		0		136:49	273:16	00	48:35	274:38	733:51	0	0	
12/23/91	1275	1:00	2:01	0		0		21:27	42:40	00	8:19	46:17	*****	0	0	
12/30/91	4374	1:00	2:00	0		0		72:52	*****	00	26:08	*****	*****	0	0	
1/ 6/92	1737	1:00	2:00	0		0		29:00	57:52	00	12:01	68:36	*****	0	0	
1/13/92	796	1:00	2:00	0		0		13:29	26:56	00	2:05	16:35	59:21	0	0	

Monthly Agent Summary

Agent: Split01 Agent01

Printed: 1/21/92 2:48 PM
ACD: NASPS ACD1

Month Starting	ACD Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	ACD	ACW	Ring	AUX	Avail	Staff	Trans Out	Calls Held	Avg Hold Time
Totals:	4133	2:29	2:01	0		0		172:56	139:36	00	62:53	352:33	732:03	0	0	
11/ 1/91	1161	4:18	2:01	0		0		84:26	39:52	00	32:11	184:16	342:48	0	0	
12/ 1/91	2972	1:46	2:00	0		0		88:29	99:44	00	30:41	168:16	389:15	0	0	

Figure 5-5. Agent Summary Report Examples

Table 5-1. Agent Summary Report Description



NOTE:

Database items and calculations apply to the *hagent* table for interval reports, the *dagent* table for daily reports, the *wagent* table for weekly reports, and the *magent* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, or Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Agent	The name of the agent selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Time (for interval reports only)	The intrahour intervals for which the report shows data (selected in the Report Input window).	STARTTIME
ACD Calls	The number of ACD calls and direct agent calls that were offered to the split and direct agent calls that were offered to the split and handled by the agent. This total will also include O_ACDCALLS if you have the Outgoing Call Management application of ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	SUM(ACDCALLS+DA_ACDCALLS) SUM(<TOTAL_ACDCALLS>)
Avg Talk Time	Average length of this agent's ACD calls during the period covered.	SUM(TOTAL_ACDTIME) / SUM(TOTAL_ACDCALLS) <AVG_AGENT_TALK_SUM>
Avg After Call	Average length of after call work sessions for this agent.	SUM(TOTAL_ACWTIME) / SUM(TOTAL_ACDCALLS) <AVG_AGENT_ACW_SUM>

Table 5-1. Agent Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Extn In Calls	The number of inbound extension calls received by this agent during the period covered. This includes calls received while the agent was in ACW for either split or direct agent ACD calls.	SUM(ACWINCALLS + AUXINCALLS) SUM(<EXT_CALL_IN>)
(Extn In) Avg Talk Time	Average length of this agent's inbound extension calls.	SUM(ACWINTIME + AUXINTIME) / SUM(ACWINCALLS + AUXINCALLS) <AVG_TALK_TIME_IN_SUM>
Extn Out Calls	The number of outbound calls dialed from the agent's extension during the period covered. This includes calls made while in ACW for split and direct agent ACD calls.	SUM(ACWOUTCALLS + AUXOUTCALLS) SUM(<EXT_CALL_OUT>)
(Extn Out) Avg Talk Time	Average length of this agent's outbound extension calls.	SUM(ACWOUTTIME + AUXOUTTIME) / SUM(ACWOUTCALLS + AUXOUTCALLS) <AVG_TALK_TIM_OUT_SUM>
(Agent Time) ACD	The time this agent spent on ACD calls (including direct agent calls).	SUM(I_ACDTIME + I_DA_ACDTIME) SUM(<TOTAL_I_ACDTIME>)
(Agent Time) ACW	The amount of time the agent spent working on call-related activities (that is, after call work activities). This includes direct agent after call work activities.	SUM(I_ACWTIME + I_DA_ACWTIME) SUM(<TOTAL_I_ACWTIME>)
(Agent Time) Ring	The length of time ACD calls rang before the agent answered (for switches with ring state only).	SUM(I_RINGTIME)
(Agent Time) AUX	The amount of time this agent spent in auxiliary work in all splits.	SUM(TI_AUXTIME)
(Agent Time) Avail	The amount of time this agent spent waiting for an ACD call in any split.	SUM(TI_AVAILTIME)

Table 5-1. Agent Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
(Agent Time) Staff	The total logged-in time for this agent in the period covered in any split. STAFFTIME does not include time the line was down, even if the agent was staffed.	SUM(TI_STAFFTIME)
Trans Out	The number of calls transferred by this agent to another destination.	SUM(TRANSFERRED)
Calls Held	The number of calls the agent put on hold.	SUM(HOLDCALLS)
Avg Hold Time	Average length of time calls were on hold.	sum(HOLDTIME) / sum(HOLDCALLS) <AVG_HOLD_TIME_SUM>

Agent Split Report

The Agent Split report shows an individual agent's performance by split.

Things to Know About This Report

- You can obtain an Agent Split report in interval, daily, weekly, or monthly forms.
- Each row in the report shows the total for the specified time for a particular split the agent was logged into. However, the **Totals:** row shows the totals over the day for **all** splits for this agent.
- Talk times are shown as totals, not as averages.

Agent Split Input Window

You must fill out the Agent Split report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Agent: Split: Monthly Input				acd1
Agent: Sadie Jones				Run
Dates: 3/1				Set dest

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-6. Agent Split Monthly Input Window Example

Field Descriptions

Agent : (Interval, Daily, Weekly, and Monthly)

Enter the appropriate agent name or login ID.

Date : (for Interval) or **Dates :** (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- For Daily, Weekly, and Monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times : (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Agent Split Report Examples

A description of each report item follows the report example in the Agent Split Report Description table.

Agent Interval Report by Split												
Date: 1/15/92									Printed: 1/21/92 2:49 PM			
Agent: Split01 Agent01									ACD: NASPS ACD1			
Time	Split	ACD Calls	Total Talk Time	Total ACW Time	Extn In Calls	Total Talk Time	Extn Out Calls	Total Talk Time	Assists	Calls Held	Total Hold Time	Trans Out
Totals:		18	:18:01	:37:37	0	:00:00	0	:00:00	0	0	:00:00	0
11:05-11:20AM Billing		4	4:00	9:23	0	:00	0	:00	0	0	:00	0
11:20-11:35AM Billing		5	5:00	8:42	0	:00	0	:00	0	0	:00	0
11:35-11:50AM Billing		5	4:30	9:54	0	:00	0	:00	0	0	:00	0
11:50-12:05PM Billing		4	4:31	9:38	0	:00	0	:00	0	0	:00	0

Daily Agent Report by Split												
Agent: Split01 Agent01		Printed: 1/21/92 2:50 PM ACD: NASPS ACD1										
Date	Split	ACD Calls	Total Talk Time	Total ACW Time	Extn In Calls	Total Talk Time	Extn Out Calls	Total Talk Time	Assists	Calls Held	Total Hold Time	Trans Out
Totals:		796	13:29:07	26:56:51	0	:00:00	0	:00:00	0	0	:00:00	0
1/13/92	Billing	130	2:13:39	4:24:21	0	:00:00	0	:00:00	0	0	:00:00	0
1/14/92	Billing	159	2:39:03	5:17:57	0	:00:00	0	:00:00	0	0	:00:00	0
1/15/92	Billing	185	3:06:07	6:12:01	0	:00:00	0	:00:00	0	0	:00:00	0
1/16/92	Billing	157	2:42:44	5:25:39	0	:00:00	0	:00:00	0	0	:00:00	0
1/16/92	Veterinari	0	:00:00	:00:00	0	:00:00	0	:00:00	0	0	:00:00	0
1/17/92	Billing	165	2:47:34	5:36:53	0	:00:00	0	:00:00	0	0	:00:00	0

Weekly Agent Report by Split												Printed: 1/21/92 2:52 PM	
Agent: Split01 Agent01												ACD: NASPS ACD1	
Week	Starting	Split	ACD Calls	Total Talk Time	Total ACW Time	Extn In Calls	Total Talk Time	Extn Out Calls	Total Talk Time	Assists	Calls Held	Total Hold Time	Trans Out
Totals:			8182	136:49	273:16	0	:00	0	:00	0	0	:00	0
12/23/91	Billing		1275	21:27	42:40	0	:00	0	:00	0	0	:00	0
12/30/91	Billing		2187	36:26	72:53	0	:00	0	:00	0	0	:00	0
12/30/91	Billing		2187	36:26	72:53	0	:00	0	:00	0	0	:00	0
1/ 6/92	Billing		1737	29:00	57:52	0	:00	0	:00	0	0	:00	0
1/13/92	Billing		796	13:29	26:56	0	:00	0	:00	0	0	:00	0
1/13/92	Veterinari		0	:00	:00	0	:00	0	:00	0	0	:00	0

Monthly Agent Report by Split												
Agent: Split01 Agent01			Printed: 1/21/92 2:53 PM ACD: NASPS ACD1									
Month	Split	ACD Calls	Total Talk Time	Total ACW Time	Extn In Calls	Total Talk Time	Extn Out Calls	Total Talk Time	Assists	Calls Held	Total Hold Time	Trans Out
Totals:		4133	172:56	139:36	0	:00	0	:00	0	0	:00	0
11/ 1/91 Billing		1161	84:26	39:52	0	:00	0	:00	0	0	:00	0
12/ 1/91 Billing		2972	88:29	99:44	0	:00	0	:00	0	0	:00	0

Figure 5-7. Agent Split Report Examples

Table 5-2. Agent Split Report Description

**NOTE:**

Database items and calculations apply to the *hagent* table for interval reports, the *dagent* table for daily reports, the *wagent* table for weekly reports, and the *magent* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, or Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Agent	The name of the agent selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Time (for interval reports only)	The intrahour intervals for which the report shows data (selected in the Report Input window).	STARTTIME
Split	Name or number of the split(s) the agent logged into during the specified time period.	SYN(SPLIT)
ACD Calls	The number of calls and direct agent calls that were offered to the split and handled by the agent. This total will also include outbound ACD calls (O_ACDCALLS) if you have the Outgoing Call Management application on ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	(ACDCALLS+DA_ACDCALLS) <TOTAL ACDCALLS>

Table 5-2. Agent Split Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
(ACD) Total Talk Time	The total time an agent spent on ACD calls.	(I_ACDTIME+I_DA_ACDTIME) <TOTAL_I_ACDTIME>
Total ACW Time	The total time the agent spent in after call work.	(I_ACWTIME + I_DA_ACWTIME) <TOTAL_ACWTIME>
Extn In Calls	The number of direct-dialed calls to the agent's extension during the period covered.	(ACWINCALLS+AUXINCALLS) <EXT_CALL_IN>
(Extn In) Total Talk Time	Total talk time on inbound extension calls.	(I_ACWINTIME+I_AUXINTIME) <EXT_IN_TIME>
Extn Out Calls	The number of calls dialed from the agent's extension during the period covered.	(ACWOUTCALLS+AUXOUTCALLS) <EXT_CALL_OUT>
(Extn Out) Total Talk Time	Total talk time on outbound extension calls.	(I_ACWOUTTIME+I_AUXOUTTIME) <EXT_OUT_TIME>
Assists	Number of calls referred to the supervisor by the agent during the specified time period.	ASSISTS
Calls Held	The number of calls put on hold.	HOLDCALLS
Total Hold Time	Total time calls were on hold for the specified time period.	HOLDTIME
Trans Out	Total number of calls transferred by the agent during the specified time period.	TRANSFERRED

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 the agent was logged into.

Things to Know About This Report

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

Agent Attendance Input Window

You must fill out the Agent Attendance report input window to run your report. Field descriptions follow for each type of input window (that is, daily, weekly, and monthly).

The screenshot shows a terminal window titled "Call Management System" with the date and time "04/13/92 8:30 AM" and "Windows: 1 of 4". The main content area displays the following text:

```
Rpts: Hist: Agent: Attendance: Daily Input                                acd1
Agent: Smith, H                                                            : Run
                                                                           : Set dest
Dates: 02/28/92;03/01/92;03/06/92                                         :
Destination is printer pr1
```

At the bottom of the window, there is a row of buttons: Help, Window, Commands, Keep, Exit, a blank button, Current, and MainMenu.

Figure 5-8. Agent Attendance Daily Input Window Example

Field Descriptions

Agent : (Daily, Weekly, and Monthly)

Enter the appropriate agent name or login ID.

Dates : (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- You can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92).

Agent Attendance Report Examples

Examples of the report follow along with a description of each report item.

Daily Agent Attendance											
Agent: Split01 Agent01											
Printed: 1/21/92 2:54 PM ACD: NASPS ACD1											
Date	Total Time Staffed	Total ACD Time	Total ACW Time	Total Ringing Time	Total Extn In Time	Total Extn Out Time	Total Avail Time	Total AUX Time	ACD Calls	Extn In Calls	Extn Out Calls
Totals:	59:21:47	13:29:07	26:56:51	:00:00	:00:00	:00:00	16:35:30	2:05:59	796	0	0
1/13/92	16:19:23	2:13:39	4:24:21	:00:00	:00:00	:00:00	8:13:54	1:23:07	130	0	0
1/14/92	10:20:50	2:39:03	5:17:57	:00:00	:00:00	:00:00	2:11:15	:12:01	159	0	0
1/15/92	12:13:48	3:06:07	6:12:01	:00:00	:00:00	:00:00	2:39:24	:15:00	185	0	0
1/16/92	9:13:25	2:42:44	5:25:39	:00:00	:00:00	:00:00	:57:11	:03:00	157	0	0
1/17/92	11:14:21	2:47:34	5:36:53	:00:00	:00:00	:00:00	2:33:46	:12:51	165	0	0

Weekly Agent Attendance											Printed: 1/21/92 2:56 PM		
Agent: Split01 Agent01											ACD: NASPS ACD1		
Week	Total Time	Total ACD	Total ACW	Total Ringing	Total Extn In	Total Extn Out	Total Avail	Total AUX	ACD Calls	Extn In	Extn Out		
Starting	Staffed	Time	Time	Time	Time	Time	Time	Time		Calls	Calls		
Totals:	733:51	136:49	273:16	:00	:00	:00	274:38	48:35	8182	0	0		
12/23/91	*****	21:27	42:40	:00	:00	:00	46:17	8:19	1275	0	0		
12/30/91	*****	72:52	*****	:00	:00	:00	*****	26:08	4374	0	0		
1/ 6/92	*****	29:00	57:52	:00	:00	:00	68:36	12:01	1737	0	0		
1/13/92	59:21	13:29	26:56	:00	:00	:00	16:35	2:05	796	0	0		

Monthly Agent Attendance										Printed: 1/21/92 2:57 PM		
Agent: Split01 Agent01										ACD: NASPS ACD1		
Month	Total Time	Total ACD	Total ACW	Total Ringing	Total Extn In	Total Extn Out	Total Avail	Total AUX	ACD Calls	Extn In	Extn Out	
Starting	Staffed	Time	Time	Time	Time	Time	Time	Time		Calls	Calls	
Totals:	732:03	172:56	139:36	:00	:00	:00	352:33	62:53	4133	0	0	
11/ 1/91	342:48	84:26	39:52	:00	:00	:00	184:16	32:11	1161	0	0	
12/ 1/91	389:15	88:29	99:44	:00	:00	:00	168:16	30:41	2972	0	0	

Figure 5-9. Agent Attendance Report Examples

⇒ **NOTE:**

Database items and calculations apply to the *dagent* table for daily reports, the *wagent* table for weekly reports, and the *magent* table for monthly reports.

Table 5-3. Agent Attendance Report Description

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Agent	The name of the agent selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Date, Week Starting, or Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Total Time Staffed	The total time the agent was logged in (staffed) for the specified time period in any split. STAFFTIME does not include time the link was down, even if agent was staffed.	SUM(TI_STAFFTIME)
Total ACD Time	The total time an agent spent on all ACD calls for the specified time period in any split.	sum(I_ACDTIME + I_DA_ACDTIME) sum(<TOTAL_I_ACDTIME>)
Total ACW Time	The total time an agent spent in after call work for the specified time period in any split for ACD calls and direct agent calls. Time on extension calls is also included.	sum(I_ACWTIME + I_DA_ACWTIME) sum(<TOTAL_I_ACWTIME>)
Total Ringing Time	The total time all ACD calls rang before the agent answered the call. (Your switch must support ring state.)	sum(I_RINGTIME)
Total Extn In Time	The total time an agent spent on all inbound extension calls for the specified time period.	sum(I_ACWINTIME + I_AUXINTIME) sum(<EXT_IN_TIME>)
Total Extn Out Time	The total time an agent spent on all outbound extension calls for the specified time period.	sum(I_ACWOUTTIME + I_AUXOUTTIME) sum(<EXT_OUT_TIME>)

Table 5-3. Agent Attendance Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Total Avail Time	The total time for the specified time period that an agent was available to take ACD calls in any split.	<i>sum(TI_AVAILTIME)</i>
Total AUX Time	The total time an agent spent in auxiliary work for the specified time period in all splits.	<i>sum(TI_AUXTIME)</i>
ACD Calls	The total number of ACD calls answered by the agent for any split.	<i>sum(ACDCALLS + DA_ACDCALLS)</i> <i>sum(<TOTAL_ACDCALLS>)</i>
Extn In Calls	The total number of inbound extension calls received by the agent. This includes calls received while the agent was available, in ACW, and AUX work for either split or direct agent ACD calls.	<i>sum(ACWINCALLS + AUXINCALLS)</i> <i>sum(<EXT_CALL_IN>)</i>
Extn Out Calls	The total number of outbound extension calls placed by the agent. This includes calls originated by agent while the agent was in ACW and AUX work for either split or direct agent ACD calls.	<i>sum(ACWOUTCALLS + AUXOUTTIME)</i> <i>sum(<EXT_CALL_OUT>)</i>

Group Attendance Report

The 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.

Things to Know About This Report

- The **Totals** column in the report(s) displays the totals for all agents in the group you have selected. Individual agent entries in this report show the totals for a particular agent.
- You can obtain a Group Attendance report in daily, weekly, or monthly forms.

Prerequisite System Administration

You must create your group in the Dictionary subsystem first. See Chapter 7, "Dictionary — Agent Groups," for more information.

Group Attendance Input Window

You must fill out the Group Attendance report input window to run your report. Field descriptions follow for each type of input window (that is, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Group Attendance: Weekly Input acd1

Agent group: Sales Run
Set dest

Date: 2/28/92

Destination is printer pr1

Help

Window

Commands

Keep

Exit

Current

MainMenu

Figure 5-10. Group Attendance Weekly Input Window

Field Descriptions

Agent group: (Daily, Weekly, and Monthly)

Enter the appropriate group name.



NOTE:

Make sure you enter the agent group name correctly. 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 request will run but will not contain data because the group does not exist. You will have to reenter the group name correctly.

Date: (for Daily, Weekly, and 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, 3/21/92).



NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- You can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92).

Group Attendance Report Examples

A description of each report item follows the report example in the Group Attendance Report Description table.

Daily Group Attendance													Printed: 1/21/92 2:59 PM	
Date: 1/15/92													ACD: NASPS ACD1	
Agent group: Group1_AgGrp														
Agent	Agent ID	Total Time Staffed	Total ACD Time	Total ACW Time	Total Ringing Time	Total Extn In Time	Total Extn Out Time	Total Avail Time	Total AUX Time	ACD Calls	Extn In Calls	Extn Out Calls		
Totals:		122:18:00	31:30:52	62:49:18	:00:00	:00:00	:00:00	25:14:06	2:27:35	1877	0	0		
Split01 Agent02	5002	12:13:48	3:06:25	6:15:45	:00:00	:00:00	:00:00	2:39:29	:12:00	184	0	0		
Split01 Agent04	5004	12:13:48	3:08:05	6:14:08	:00:00	:00:00	:00:00	2:35:08	:15:01	186	0	0		
Split02 Agent01	5006	12:13:48	3:09:47	6:20:34	:00:00	:00:00	:00:00	2:21:46	:19:18	189	0	0		
Split02 Agent03	5008	12:13:48	3:12:02	6:22:05	:00:00	:00:00	:00:00	2:21:06	:18:00	190	0	0		
Split02 Agent05	5010	12:13:48	3:10:04	6:14:29	:00:00	:00:00	:00:00	2:27:33	:20:16	189	0	0		
Split03 Agent02	5012	12:13:48	3:05:04	6:11:36	:00:00	:00:00	:00:00	2:41:15	:12:00	185	0	0		
Split03 Agent04	5014	12:13:48	3:06:02	6:13:41	:00:00	:00:00	:00:00	2:41:14	:12:00	185	0	0		
Split04 Agent01	5016	12:13:48	3:12:09	6:23:44	:00:00	:00:00	:00:00	2:28:30	:09:00	191	0	0		
Split04 Agent03	5018	12:13:48	3:10:31	6:15:35	:00:00	:00:00	:00:00	2:30:08	:15:00	189	0	0		
Split04 Agent05	5020	12:13:48	3:10:43	6:17:41	:00:00	:00:00	:00:00	2:27:57	:15:00	189	0	0		
Weekly Group Attendance													Printed: 1/21/92 3:00 PM	
Week Starting: 1/13/92													ACD: NASPS ACD1	
Agent group: Group1_AgGrp														
Agent	Agent ID	Total Time Staffed	Total ACD Time	Total ACW Time	Total Ringing Time	Total Extn In Time	Total Extn Out Time	Total Avail Time	Total AUX Time	ACD Calls	Extn In Calls	Extn Out Calls		
Totals:		592:51	137:08	272:52	:00	:00	:00	158:08	21:27	8096	0	0		
Split01 Agent02	5002	59:18	13:34	26:58	:00	:00	:00	16:33	2:03	803	0	0		
Split01 Agent04	5004	59:18	13:35	27:01	:00	:00	:00	16:14	2:06	803	0	0		
Split02 Agent01	5006	59:22	13:42	27:44	:00	:00	:00	15:18	2:25	812	0	0		
Split02 Agent03	5008	59:03	13:52	27:19	:00	:00	:00	15:10	2:24	815	0	0		
Split02 Agent05	5010	59:18	13:50	27:15	:00	:00	:00	15:19	2:24	816	0	0		
Split03 Agent02	5012	59:18	13:36	27:13	:00	:00	:00	16:13	1:53	806	0	0		
Split03 Agent04	5014	59:18	13:33	26:57	:00	:00	:00	16:18	1:57	802	0	0		
Split04 Agent01	5016	59:18	13:46	27:42	:00	:00	:00	15:38	2:00	812	0	0		
Split04 Agent03	5018	59:18	13:49	27:28	:00	:00	:00	15:42	2:00	815	0	0		
Split04 Agent05	5020	59:18	13:46	27:11	:00	:00	:00	15:39	2:11	812	0	0		
Monthly Group Attendance													Printed: 1/21/92 3:01 PM	
Month Starting: 12/ 1/91													ACD: NASPS ACD1	
Agent group: Group1_AgGrp														
Agent	Agent ID	Total Time Staffed	Total ACD Time	Total ACW Time	Total Ringing Time	Total Extn In Time	Total Extn Out Time	Total Avail Time	Total AUX Time	ACD Calls	Extn In Calls	Extn Out Calls		
Totals:		3889:59	890:47	1009:31	:00	:00	:00	1663:05	305:48	30148	0	0		
Split01 Agent02	5002	387:53	87:50	98:54	:00	:00	:00	168:46	30:43	2965	0	0		
Split01 Agent04	5004	389:15	88:52	98:53	:00	:00	:00	169:15	30:26	2971	0	0		
Split02 Agent01	5006	387:58	88:58	102:07	:00	:00	:00	163:51	30:34	3040	0	0		
Split02 Agent03	5008	389:15	90:32	102:37	:00	:00	:00	163:31	30:46	3055	0	0		
Split02 Agent05	5010	389:15	90:27	102:36	:00	:00	:00	162:53	30:47	3063	0	0		
Split03 Agent02	5012	389:15	87:32	97:21	:00	:00	:00	172:26	30:14	2903	0	0		
Split03 Agent04	5014	389:15	86:14	96:55	:00	:00	:00	172:56	30:52	2897	0	0		
Split04 Agent01	5016	389:15	90:06	103:16	:00	:00	:00	163:30	30:24	3083	0	0		
Split04 Agent03	5018	389:15	90:27	103:37	:00	:00	:00	162:36	30:26	3092	0	0		
Split04 Agent05	5020	389:15	89:46	103:10	:00	:00	:00	163:16	30:30	3079	0	0		

Figure 5-11. Group Attendance Report Examples

⇒ **NOTE:**

Database items and calculations apply to the *dagent* table for daily reports, the *wagent* table for weekly reports, and the *magent* table for monthly reports.

Table 5-4. Group Attendance Report Description

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Agent Group	The name of the group selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this group.	SYN(ACD)
Agent	The names of the agents that are assigned to the group selected in the Report Input window.	SYN(LOGID)
Agent ID	The login ID assigned to each agent.	LOGID
Total Time Staffed	The total time the agents were logged in (staffed) for the specified time period in any split.	sum(TI_STAFFTIME)
Total ACD Time	The total time the agents in the group spent on all ACD calls for the specified time period.	sum(I_ACDTIME + I_DA_ACDTIME) sum(<TOTAL_I_ACDTIME>)
Total ACW Time	The total time the agents in the group spent in after call work for the specified time period.	sum(I_ACWTIME + I_DA_ACWTIME) sum(<TOTAL_I_ACWTIME>)
Total Ringing Time	The total time all calls rang before the agents answered the calls. (Your switch must support ring state.)	sum(I_RINGTIME)
Total Extn In Time	The total time the agents in the group spent on all inbound extension calls for the specified time period.	sum(I_ACWINTIME + I_AUXINTIME) sum(EXT_IN_TIME>)
Total Extn Out Time	The total time the agents spent on all outbound extension calls for the specified time period.	sum(I_ACWOUTTIME + I_AUXOUTTIME) sum(EXT_OUT_TIME>)

Table 5-4. Group Attendance Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Total Avail Time	The total time that the agents were available to take ACD calls for any split during the specified time period.	<i>sum(TI_AVAILTIME)</i>
Total AUX Time	The total time the agents spent in auxiliary work for the specified time period.	<i>sum(TI_AUXTIME)</i>
ACD Calls	The total number of ACD calls offered to the split(s) and handled by the agents in this group.	<i>sum(ACDCALLS + DA_ACDCALLS)</i> <i>sum(<TOTAL_ACDCALLS>)</i>
Extn In Calls	The total number of inbound extension calls received by the agents in this group. This includes calls received while the agent was in ACW and AUX work for either split or direct agent ACD calls.	<i>sum(ACWINCALLS + AUXINCALLS)</i> <i>sum(<EXT_CALL_IN>)</i>
Extn Out Calls	The total number of outbound extension calls placed by the agents. This includes calls originated by the agent while the agent was in ACW and AUX work for either split or direct agent ACD calls.	<i>sum(ACWOUTCALLS + AUXOUTTIME)</i> <i>sum(<EXT_CALL_OUT>)</i>

Login/Logout Report

The Agent Login/Logout report shows the agent login and logout times for a split on a specified day.

Things to Know About This Report

This report is available in daily form only.

Agent Login/Logout Input Window

You must fill out the Login/Logout report input window to run your report. Field descriptions follow the input window.

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Agent: Login/Logout: Input acd1

Split: Smith, H Run Set dest

Date: 03/12/92

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-12. Agent Login/Logout Input Window Example

Field Descriptions

Split:

Enter the appropriate split name or number.

Date:

Enter the date you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).
- You can also use a "-" offset based on today's date (for example, -0 for today).

Agent Login/Logout Report Example

A description of each report item follows the report example in the Agent Login/Logout Report Description table.

Login/Logout

Date: mm/dd/yy Printed: mm/dd/yy hh:mm AM
Split: xxxxxxxxxxxxxxxxxxxxxx ACD: xxxxxxxxxxxxxxxxxxxxxx

Agent	Extn	Login	Logout
xxxxxxxxxxxxxxxxxxxxxxxx	xxxxx	xx:xxAM	xx:xxPM
xxxxxxxxxxxxxxxxxxxxxxxx	xxxxx	xx:xxAM	xx:xxPM
xxxxxxxxxxxxxxxxxxxxxxxx	xxxxx	<xx:xxAM	xx:xxPM
xxxxxxxxxxxxxxxxxxxxxxxx	xxxxx	<xx:xxAM	xx:xxPM
xxxxxxxxxxxxxxxxxxxxxxxx	xxxxx	xx:xxAM	xx:xxPM
xxxxxxxxxxxxxxxxxxxxxxxx	xxxxx	xx:xxAM	>xx:xxPM

Figure 5-13. Agent Login/Logout Report Example

⇒ NOTE:

The "<" indicates the agent was already logged in when the link came up, and the ">" indicates that the agent logged out while the link was down.

⇒ NOTE:

Database items and calculations apply to the *haglog* table for daily reports.

Table 5-5. Agent Login/Logout Report Description

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name or number of the split selected in the Report Input window.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Agent	The name(s) of the agent(s) assigned to the split selected in the Report Input window.	SYN(LOGID)
Extn	The measured extension where the agent logged in.	EXTN
Login	The time the agent logged into this split.	LOGIN
Logout	The time the agent logged out of this split.	LOGOUT
Inflag (<)	The "<" indicates the agent was already logged in when the link came up.	No database item or calculation.
Outflag (>)	The ">" indicates that the agent logged out while the link was down.	No database item or calculation.

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.

Things to Know About This Report

Agents can be in any one of the following states:

- LOGON — The agent logged into a split.
- LOGOFF — The agent logged out of a split.
- 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 or available.
- 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.
- 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 (for example, when the link first comes up and CMS has not received information from the ACD as to the agent's status).

Relationships to Other Subsystems

ACD Administration

You must activate an agent trace to obtain an Agent Trace report. See Chapter 9, "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 when it becomes full and old records are overwritten by new records, you will 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 9, “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 and 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, and Transfer Completed. See the *CMS Custom Reports* (585-215-513) document for more information on creating and using custom reports, and see Chapter 11, “System Setup — Agent Trace Record Contents,” to administer data collection for these items.

Agent Trace Input Window

Before you can run the Agent Trace report, you must first fill out the input window.

The screenshot shows a window titled "03/13/92 8:30 AM Call Management System" with "Windows: 1 of 4" in the top right. The main area contains a form with the following fields:

Rpts: Hist: Agent: Trace Input		acd1
Agent:	Linda Jones	Run
Dates:	3/7/92;3/10/92-3/12/92	Set dest
Times:	15:00-23:30	

Below the form, it says "Destination is terminal". At the bottom, there is a row of buttons: Help, Window, Commands, Keep, Exit, a blank button, Current, and MainMenu.

Figure 5-14. Agent Trace Input Window Example

Field Descriptions

Agent :

Enter the name or login ID of the agent for whom you want an Agent Trace report.

Dates :

Enter the dates you want for the report.

- You can use the month/day/year (for example, 3/21/92).
- You can also use a "-" offset based on today's date (for example, -0 for today).
- You can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92).

Times :

Enter the time of day you want the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).
- You can enter a set of intervals for a particular day to see agent activity for those intervals (for example, 7:00AM-8:30AM;11:00AM-12:30PM;3:30PM-5:00PM).

Agent Trace Report Example

A description of each report item follows the report example in the Agent Trace Report Description table.

Agent Trace						Printed: 1/29/92 6:52 AM	
Agent: Scout						ACD: parrot	
Date	Time	Seq	State	Split	Duration	Reconnect	
1/28/92	7:58:04AM	1	AVAIL	sales	:10	n	
1/28/92	7:58:46AM	1	AUX OUT	sales	:06	n	
1/28/92	7:58:52AM	1	AUX OUT	sales	:06	n	
1/28/92	7:58:58AM	1	AUX	sales	:00	n	
1/28/92	7:58:58AM	2	AVAIL	sales	:00	n	
1/28/92	7:58:58AM	3	AUX OUT	sales	:00	n	
1/28/92	7:58:58AM	4	AUX OUT	sales	:00	n	
1/28/92	7:58:58AM	5	AUX	sales	:00	n	
1/28/92	7:58:58AM	6	AVAIL	sales	:00	n	
1/28/92	7:58:58AM	7	AUX OUT	sales	:06	n	
1/28/92	7:59:04AM	1	AUX OUT	sales	:06	n	
1/28/92	7:59:10AM	1	AUX	sales	:00	n	
1/28/92	7:59:10AM	2	AVAIL	sales	:00	n	
1/28/92	7:59:10AM	3	AUX OUT	sales	:00	n	
1/28/92	7:59:10AM	4	AUX OUT	sales	:00	n	
1/28/92	7:59:10AM	5	AUX	sales	:00	n	
1/28/92	7:59:10AM	6	AVAIL	sales	:00	n	
1/28/92	7:59:10AM	7	ACD IN	sales	:00	n	
1/28/92	7:59:10AM	8	AVAIL	sales	:00	n	
1/28/92	7:59:10AM	9	RING	sales	:00	n	
1/28/92	7:59:10AM	10	ACD IN	sales	:00	n	
1/28/92	7:59:10AM	11	ACW IN	sales	:00	n	
1/28/92	7:59:10AM	12	ACW	sales	:00	n	
1/28/92	7:59:10AM	13	AVAIL	sales	:03	n	

Figure 5-15. Agent Trace Report Example

Table 5-6. Agent Trace Report Description



NOTE:

Database items apply to the *ag_actv* table.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Agent	The name of the agent selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Date	The day the event (state change) took place.	ROW_DATE
Time	Time of day the event started.	EVENT_TIME
Seq	Sequence number of each event. This number shows the proper sequence of events that occur within the same second.	WMODE_SEQ
State	The current work state of the agent. An agent can be in any one of the following states: LOGON, LOGOFF, ACDIN, ACDOUT, ACW, ACWIN, ACWOUT, AUX, AUXIN, AUXOUT, AVAILABLE, DACD, DACW, or UNKNOWN.	WORKMODE and DIRECTION
Split	Lists the split associated with the state.	SYN(SPLIT)
Duration	The length of time spent in the state. Shown in minutes and seconds (mm:ss). For ACW and AUX, the duration is the total time the agent spent in the state, including time on ACWIN, ACWOUT, AUXIN, and AUXOUT calls.	DURATION
Reconnect	Indicates whether the agent was reconnected to the call (for example, the agent put a call on hold and then retrieved the call from hold).	RECONNECT

Event Count Report

The Agent Event Count report shows the total number of times an individual agent has pressed an **Event Count** (sometimes referred to as Stroke Count) button. 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. CMS records an event occurrence each time an agent presses an Event Count button on his or her voice terminal.

Things to Know About This Report

- Event counts are only recorded while an agent is on an ACD call. If an agent is in AUTO-IN mode, the ACD call will terminate when the caller hangs up. With 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 which indicates to CMS the agent is still on the ACD call. As long as the agent records the event before returning to the AVAIL mode, all events will be counted.
- This report is available with Generic 2, System 85, and Generic 3 switches only.
- Event Count buttons are also known as Stroke Count buttons.
- This report is available in interval, daily, weekly, and monthly versions.

Prerequisite System Administration

Event Counts (stroke counts) require a Special Development bid with Generic 1.1.

Agent Event Count Input Window

You must fill out the Agent Event Count report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

04/13/92 08:30 AM Call Management System	Windows: 1 of 4

Rpts: Hist: Agent: Event Count: Daily Input	acd1
Agent: Sales	: Run
Dates: 2/5/92-2/25/92;3/12/92	: Set dest

Destination is terminal

Figure 5-16. Agent Event Count Daily Input Window Example

Field Descriptions

Agent : (Interval, Daily, Weekly, and Monthly)

Enter the appropriate agent name or login ID.

Date : (for Interval) or **Dates :** (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).

-
- For Daily, Weekly, and Monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Agent Event Count Report Examples

A description of each report items follows the report example in the Agent Event Count Report Description table.

Agent Event Count by Interval										
Date: 1/15/92					Printed: 1/21/92 3:02 PM					
Agent: Split01 Agent01					ACD: NASPS ACD1					
Time	ACD Calls	1	2	3	4	5	6	7	8	9
Totals:	18	0	0	0	0	0	0	0	0	0
11:05-11:20AM	4	0	0	0	0	0	0	0	0	0
11:20-11:35AM	5	0	0	0	0	0	0	0	0	0
11:35-11:50AM	5	0	0	0	0	0	0	0	0	0
11:50-12:05PM	4	0	0	0	0	0	0	0	0	0

Daily Agent Event Count										
Agent: Split01 Agent01					Printed: 1/21/92 3:03 PM					
					ACD: NASPS ACD1					
Date	ACD Calls	1	2	3	4	5	6	7	8	9
Totals:	796	0	0	0	0	0	0	0	0	0
1/13/92	130	0	0	0	0	0	0	0	0	0
1/14/92	159	0	0	0	0	0	0	0	0	0
1/15/92	185	0	0	0	0	0	0	0	0	0
1/16/92	157	0	0	0	0	0	0	0	0	0
1/17/92	165	0	0	0	0	0	0	0	0	0

Weekly Agent Event Count										
Agent: Split01 Agent01					Printed: 1/21/92 3:04 PM					
					ACD: NASPS ACD1					
Week Starting	ACD Calls	1	2	3	4	5	6	7	8	9
Totals:	8182	0	0	0	0	0	0	0	0	0
12/23/91	1275	0	0	0	0	0	0	0	0	0
12/30/91	4374	0	0	0	0	0	0	0	0	0
1/ 6/92	1737	0	0	0	0	0	0	0	0	0
1/13/92	796	0	0	0	0	0	0	0	0	0

Monthly Agent Event Count										
Agent: Split01 Agent01					Printed: 1/21/92 3:07 PM					
					ACD: NASPS ACD1					
Month Starting	ACD Calls	1	2	3	4	5	6	7	8	9
Totals:	4133	0	0	0	0	0	0	0	0	0
11/ 1/91	1161	0	0	0	0	0	0	0	0	0
12/ 1/91	2972	0	0	0	0	0	0	0	0	0

Figure 5-17. Agent Event Count Report Examples

Table 5-7. Agent Event Count Report Description

**NOTE:**

Database items and calculations apply to the *hagent* table for interval reports, the *dagent* table for daily reports, the *wagent* table for weekly reports, and the *magent* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Agent	The name of the agent selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Time (interval reports only)	Interval for which counts were summed.	STARTTIME
ACD Calls	The number of ACD calls answered by this agent during the specified time period.	sum(ACDCALLS + DA_ACDCALLS) sum(<TOTAL_ACDCALLS>)
Event Count 1-9	The number of button presses of the various Event Count buttons by this agent during the specified time period.	sum(EVENT1-9)

Group Summary Report

The 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. You can use this report to compare individuals within a group.

Things to Know About This Report

- This report lists the totals for each agent in the group summed over all splits 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 an Group Summary report, you must first create and name your group in the Dictionary subsystem. See Chapter 7, "Dictionary — Agent Groups."

Group Summary Input Window

You must fill out the Group Summary report input window to run your report. Field descriptions follow for each type of input window (that is, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Agent: Group Summary: Weekly Inputacd1

Agent group: SalesRun

Dates: 2/5/92-2/25/92;3/12/92Set dest

Destination is terminal

HelpWindowCommandsKeepExitCurrentMainMenu

Figure 5-18. Group Summary Weekly Input Window Example

Field Descriptions

Agent group: (Daily, Weekly, and Monthly)

Enter the appropriate agent group name.



NOTE:

Make sure you enter the agent group name correctly. 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 request will run, but will not contain data because the group does not exist. You will have to reenter the group name correctly.

Date: (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).



NOTE:

When you specify a date for a weekly report, that date must correspond to the "week start day" selected in the Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).

Group Summary Report Examples

A description of each report items follows the report example in the Group Summary Report Description table.

Daily Group Summary

Date: 1/15/92
Agent group: Group1_AgGrp

Printed: 1/21/92 3:08 PM
ACD: NASPS ACD1

Agent	ACD Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	ACD	ACW	Total Ring	Agent AUX	Time Avail	Staff
Totals:	1877	1:00	2:01	0		0		31:30:52	62:49:18	:00:00	2:27:35	25:14:06	122:18:00
Split01 Agent02	184	1:00	2:02	0		0		3:06:25	6:15:45	:00:00	:12:00	2:39:29	12:13:48
Split01 Agent04	186	1:00	2:02	0		0		3:08:05	6:14:08	:00:00	:15:01	2:35:08	12:13:48
Split02 Agent01	189	1:00	2:00	0		0		3:09:47	6:20:34	:00:00	:19:18	2:21:46	12:13:48
Split02 Agent03	190	1:00	2:02	0		0		3:12:02	6:22:05	:00:00	:18:00	2:21:06	12:13:48
Split02 Agent05	189	1:00	1:59	0		0		3:10:04	6:14:29	:00:00	:20:16	2:27:33	12:13:48
Split03 Agent02	185	1:00	2:01	0		0		3:05:04	6:11:36	:00:00	:12:00	2:41:15	12:13:48
Split03 Agent04	185	1:00	2:02	0		0		3:06:02	6:13:41	:00:00	:12:00	2:41:14	12:13:48
Split04 Agent01	191	1:00	2:00	0		0		3:12:09	6:23:44	:00:00	:09:00	2:28:30	12:13:48
Split04 Agent03	189	1:00	1:59	0		0		3:10:31	6:15:35	:00:00	:15:00	2:30:08	12:13:48
Split04 Agent05	189	1:00	1:58	0		0		3:10:43	6:17:41	:00:00	:15:00	2:27:57	12:13:48

Weekly Group Summary

Week Starting: 1/13/92
Agent group: Group1_AgGrp

Printed: 1/21/92 3:09 PM
ACD: NASPS ACD1

Agent	ACD Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	ACD	ACW	Total Ring	Agent AUX	Time Avail	Staff
Totals:	8096	1:00	2:01	0		0		137:08	272:52	:00	21:27	158:08	592:51
Split01 Agent02	803	1:00	2:00	0		0		13:34	26:58	:00	2:03	16:33	59:18
Split01 Agent04	803	1:00	2:01	0		0		13:35	27:01	:00	2:06	16:14	59:18
Split02 Agent01	812	1:00	2:00	0		0		13:42	27:44	:00	2:25	15:18	59:22
Split02 Agent03	815	1:00	2:01	0		0		13:52	27:19	:00	2:24	15:10	59:03
Split02 Agent05	816	1:00	2:00	0		0		13:50	27:15	:00	2:24	15:19	59:18
Split03 Agent02	806	1:00	2:01	0		0		13:36	27:13	:00	1:53	16:13	59:18
Split03 Agent04	802	1:00	2:01	0		0		13:33	26:57	:00	1:57	16:18	59:18
Split04 Agent01	812	1:00	2:01	0		0		13:46	27:42	:00	2:00	15:38	59:18
Split04 Agent03	815	1:00	2:00	0		0		13:49	27:28	:00	2:00	15:42	59:18
Split04 Agent05	812	1:00	2:00	0		0		13:46	27:11	:00	2:11	15:39	59:18

Monthly Group Summary

Month Starting: 12/ 1/91
Agent group: Group1_AgGrp

Printed: 1/21/92 3:10 PM
ACD: NASPS ACD1

Agent	ACD Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	ACD	ACW	Total Ring	Agent AUX	Time Avail	Staff
Totals:	30148	1:45	2:00	0		0		890:47	1009:31	:00	305:48	1663:05	3889:59
Split01 Agent02	2965	1:45	2:00	0		0		87:50	98:54	:00	30:43	168:46	387:53
Split01 Agent04	2971	1:47	2:00	0		0		88:52	98:53	:00	30:26	169:15	389:15
Split02 Agent01	3040	1:44	2:00	0		0		88:58	102:07	:00	30:34	163:51	387:58
Split02 Agent03	3055	1:45	2:01	0		0		90:32	102:37	:00	30:46	163:31	389:15
Split02 Agent05	3063	1:46	2:01	0		0		90:27	102:36	:00	30:47	162:53	389:15
Split03 Agent02	2903	1:47	2:01	0		0		87:32	97:21	:00	30:14	172:26	389:15
Split03 Agent04	2897	1:47	2:01	0		0		86:14	96:55	:00	30:52	172:56	389:15
Split04 Agent01	3083	1:44	2:00	0		0		90:06	103:16	:00	30:24	163:30	389:15
Split04 Agent03	3092	1:45	2:01	0		0		90:27	103:37	:00	30:26	162:36	389:15
Split04 Agent05	3079	1:44	2:00	0		0		89:46	103:10	:00	30:30	163:16	389:15

Figure 5-19. Group Summary Report Examples

Table 5-8. Group Summary Report Description



NOTE:

Database items and calculations apply to the *dagent* table for daily reports, the *wagent* table for weekly reports, and the *magent* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Group	The name of the group selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Agent	The names of the agents that are assigned to the group selected in the Report Input window.	SYN(LOGID)
ACD Calls	The number of ACD calls and direct agent calls that were offered to the split and handled by the agent. This total will also include O_ACDCALLS if you have the Outgoing Call Management application of ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	sum(ACDCALLS + DA_ACDCALLS) sum(<TOTAL_ACDCALLS>)
Avg Talk Time	Average length of time the agent was connected to ACD calls during the period covered.	sum(TOTAL_ACDTIME)/SUM(TOTAL_ACDCALLS) <AVG_AGENT_TALK_SUM>
Avg After Call	Average length of after call work sessions for the agent.	sum(TOTAL_ACWTIME)/SUM(TOTAL_ACDCALLS) <AVG_AGENT_ACW_SUM>
Extn In Calls	The number of inbound extension calls received by the agent while in after call work and auxiliary work during the period covered. This includes the agent in ACW for split and in ACW for direct agent ACD calls.	sum(ACWINCALLS + AUXINCALLS) sum(<EXT_CALL_IN>)

Table 5-8. Group Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
(Extn In) Avg Talk Time	Average length of the agent's inbound extension calls.	$\text{sum}(\text{ACWINTIME} + \text{AUXINTIME}) / \text{SUM}(\text{ACWINCALLS} + \text{AUXINCALLS})$ <AVG_TALK_TIME_IN_SUM>
Extn Out Calls	The number of outbound calls dialed from the agent's extension during the period covered. This includes agents in ACW for split and in ACW for direct agent ACD calls.	$\text{sum}(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$ $\text{sum}(\text{<EXT\_CALL\_OUT>})$
(Extn Out) Avg Talk Time	Average length of the agent's outbound extension calls.	$\text{sum}(\text{ACWOUTTIME} + \text{AUXOUTTIME}) / \text{SUM}(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$ <AVG_TALK_TIM_OUT_SUM>
(Total Agent Time) ACD	The total time the agent spent talking on all ACD calls.	$\text{sum}(\text{I\_ACDTIME} + \text{I\_DA\_ACDTIME})$ $\text{sum}(\text{<TOTAL\_I\_ACDTIME>})$
(Total Agent Time) ACW	The total time the agent spent working on all call-related activities after ACD calls ended (that is, after call work activities). Includes time on extension calls.	$\text{sum}(\text{I\_ACWTIME} + \text{I\_DA\_ACWTIME})$ $\text{sum}(\text{<TOTAL\_I\_ACWTIME>})$
(Total Agent Time) Ring	The total time all split and direct agent calls rang before an agent answered. (Generic 2 and Generic 3 switches only)	$\text{sum}(\text{I\_RINGTIME})$
(Total Agent Time) AUX	The total time the agent spent in auxiliary work for all splits.	$\text{sum}(\text{TI\_AUXTIME})$
(Total Agent Time) Avail	The total time the agent spent waiting for an ACD call in any split.	$\text{sum}(\text{TI\_AVAILTIME})$
(Total Agent Time) Staff	The total logged-in time for the agent in the time period covered for any split.	$\text{sum}(\text{TI\_STAFFTIME})$

Inbound/Outbound Call Report

The Inbound/Outbound Call report is a detailed breakdown of the inbound and outbound calls handled by an agent.

Things to Know About This Report

- The report sums the total over all the splits the agent was logged into for the specific period covered.
- This report is available in interval, daily, weekly, and monthly forms.
- You must have the Outgoing Call Management application of ASAI for data to appear in the Outbound ACD columns.

Agent Inbound/Outbound Input Window

You must fill out the Agent Inbound/Outbound report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Agent In/Outbound Call: Interval Input acd1

Agent: Smith, H Run

Date: -1 Set dest

Times: 7:30AM-5:00PM

Destination is terminal

Help Window Commands Keep Exit Current MainMenu

Figure 5-20. Agent Inbound/Outbound Interval Input Window Example

Field Descriptions

Agent : (Interval, Daily, Weekly, and Monthly)

Enter the appropriate agent name or login ID.

Date : (for Interval) or **Dates :** (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- For Daily, Weekly, and Monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times : (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Inbound/Outbound Call Report Examples

A description of each report items follows the report example in the Inbound/Outbound Call Report Description table.

Inbound/Outbound Agent Calls by Interval

Date: 1/15/92 Printed: 1/21/92 3:11 PM
Agent: Split01 Agent01 ACD: NASPS ACD1

Time	-- Inbound ACD --			- Outbound ACD -										
	Avg Calls	Avg Talk Time	Avg After Call	Avg Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	Extn External Calls	Avg Talk Time	Assists	Trans Out
Totals:	18	1:00	2:01	0			0		0		0		0	0
11:05-11:20AM	4	1:00	1:54	0			0		0		0		0	0
11:20-11:35AM	5	1:00	2:06	0			0		0		0		0	0
11:35-11:50AM	5	1:00	2:02	0			0		0		0		0	0
11:50-12:05PM	4	1:00	2:03	0			0		0		0		0	0

Daily Inbound/Outbound Agent Calls

Agent: Split01 Agent01 Printed: 1/21/92 3:13 PM
ACD: NASPS ACD1

Date	--- Inbound ACD ---			-- Outbound ACD --										
	Avg Calls	Avg Talk Time	Avg After Call	Avg Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	Extn External Calls	Avg Talk Time	Assists	Trans Out
Totals:	796	1:00	2:00	0			0		0		0		0	0
1/13/92	130	1:00	1:59	0			0		0		0		0	0
1/14/92	159	1:00	1:59	0			0		0		0		0	0
1/15/92	185	1:00	2:01	0			0		0		0		0	0
1/16/92	157	1:00	2:01	0			0		0		0		0	0
1/17/92	165	1:00	2:00	0			0		0		0		0	0

Weekly Inbound/Outbound Agent Calls

Agent: Split01 Agent01 Printed: 1/21/92 3:14 PM
ACD: NASPS ACD1

Week Starting	--- Inbound ACD ---			-- Outbound ACD --										
	Avg Calls	Avg Talk Time	Avg After Call	Avg Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	Extn External Calls	Avg Talk Time	Assists	Trans Out
Totals:	8182	1:00	2:00	0			0		0		0		0	0
12/23/91	1275	1:00	2:01	0			0		0		0		0	0
12/30/91	4374	1:00	2:00	0			0		0		0		0	0
1/ 6/92	1737	1:00	2:00	0			0		0		0		0	0
1/13/92	796	1:00	2:00	0			0		0		0		0	0

Monthly Inbound/Outbound Agent Calls

Agent: Split01 Agent01 Printed: 1/21/92 3:16 PM
ACD: NASPS ACD1

Month Starting	-- Inbound ACD --			-- Outbound ACD --										
	Avg Calls	Avg Talk Time	Avg After Call	Avg Calls	Avg Talk Time	Avg After Call	Extn In Calls	Avg Talk Time	Extn Out Calls	Avg Talk Time	Extn External Calls	Avg Talk Time	Assists	Trans Out
Totals:	4133	2:29	2:01	0			0		0		0		0	0
11/ 1/91	1161	4:18	2:01	0			0		0		0		0	0
12/ 1/91	2972	1:46	2:00	0			0		0		0		0	0

Figure 5-21. Inbound/Outbound Call Report Examples

Table 5-9. Inbound/Outbound Call Report Description



NOTE:

Database items and calculations apply to the *hagent* table for interval reports, the *dagent* table for daily reports, the *wagent* table for weekly reports, and the *magent* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Agent	The name of the agent selected in the Report Input window.	SYN(LOGID)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Time (for interval reports only)	The intrahour intervals for which the report shows data (selected in the Report Input window).	STARTTIME
Date, Week Starting, Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
(Inbound ACD) Calls	The total number of all inbound ACD calls answered by this agent during the specified time period.	(SUM(ACDCALLS + DA_ACDCALLS - O_ACDCALLS)) <INBOUND_ACDCALLS>
(Inbound ACD) Avg Talk Time	The average length of all inbound ACD calls answered by this agent during the specified time period.	sum(ACDTIME+ DA_ACDTIME-O_ACDTIME)/ sum(ACDCALLS+ DA_ACDCALLS-O_ACDCALLS)
(Inbound ACD) Avg After Call	Average length of all after call work sessions by this agent on inbound ACD calls during the specified time period.	sum(ACWTIME + DA_ACWTIME - O_ACWTIME) / sum(ACDCALLS+ DA_ACDCALLS-OACDCALLS)
(Outbound ACD) Calls	The total number of all outbound ACD calls for this agent during the specified time period.	sum(O_ACDCALLS)
(Outbound ACD) Avg Talk Time	The average length of all outbound ACD calls for this agent during the specified time period.	sum(O_ACDTIME) / sum(O_ACDCALLS)

Table 5-9. Inbound/Outbound Call Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
(Outbound ACD) Avg After Call	Average length of all after call work sessions by this agent on outbound ACD calls during the specified time period.	$\text{sum}(\text{O\_ACWTIME}) / \text{sum}(\text{O\_ACDCALLS})$
Extn In Calls	The number of inbound extension calls received by this agent while in after call work or auxiliary work during the period covered.	$\text{sum}(\text{ACWINCALLS} + \text{AUXINCALLS})$ $\text{sum}(\text{<EXT\_CALL\_IN>})$
(Extn In) Avg Talk Time	Average time length of this agent's inbound extension calls.	$\text{sum}((\text{ACWINTIME} + \text{AUXINTIME}) / \text{sum}(\text{ACWINCALLS} + \text{AUXINCALLS}))$
Extn Out Calls	The number of outbound calls dialed from this agent's extension during the period covered.	$\text{sum}(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$ $\text{sum}(\text{<EXT\_CALL\_OUT>})$
(Extn Out) Avg Talk Time	Average time length of this agent's outbound extension calls.	$\text{sum}(\text{ACWOUTTIME} + \text{AUXOUTTIME}) / \text{sum}(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$
Extn Out External Calls	The number of outbound extension calls made by this agent to a location outside the switch during after call work sessions and auxiliary work.	$\text{sum}(\text{ACWOUTOFFCALLS} + \text{AUXOUTOFFCALLS})$
(Extn Out External) Avg Talk Time	The average length of this agent's calls to a location outside the switch during after call work sessions or auxiliary work.	$\text{sum}(\text{ACWOUTOFFTIME} + \text{AUXOUTOFFTIME}) / \text{sum}(\text{ACWOUTOFFCALLS} + \text{AUXOUTOFFCALLS})$
Assists	Number of calls referred to the supervisor by this agent during the specified time period.	$\text{sum}(\text{ASSISTS})$
Trans Out	The number of calls transferred by this agent to another destination during the specified time period.	$\text{sum}(\text{TRANSFERRED})$

Split Reports

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

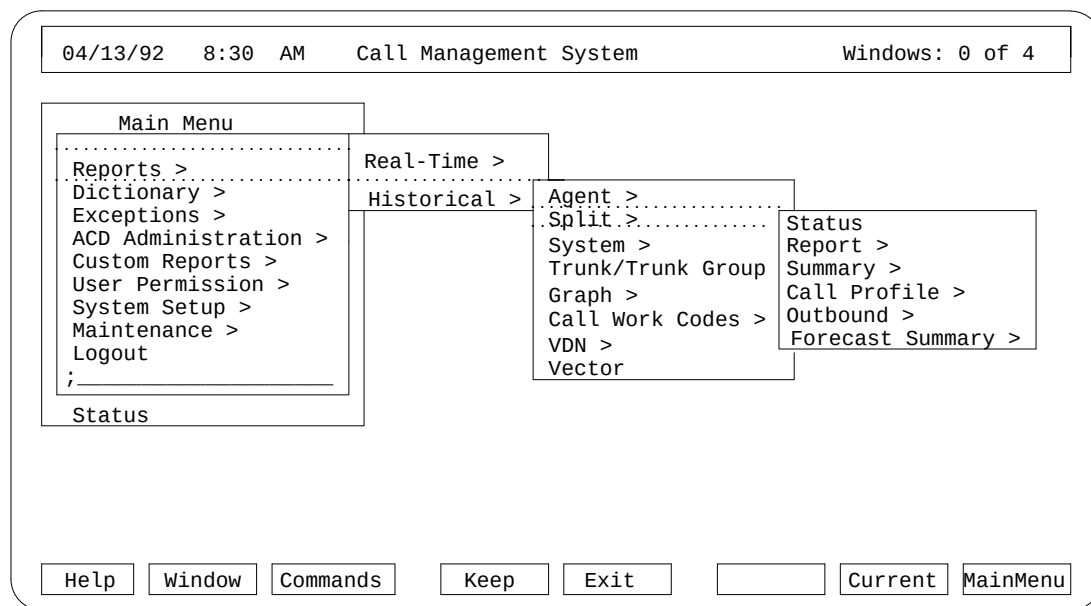


Figure 5-22. Split Reports Menu

Status Report

The Split Status report lists the percentage of calls answered within your set service level, the total number of ACD calls for the split, the total number of abandoned calls for the split, the average speed of answer and average time to abandon for the split.

Things to Know About This Report

- If you display this report on your terminal for today's date, the data in the report will be 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 will be generated a single time with the current values.
- You cannot customize this report.
- This report is available in daily form only.

Split Status Input Window

You must fill out the Split Status report input window to run your report. Field descriptions follow the input window.

The screenshot shows a terminal window titled "Call Management System" with a status bar at the top indicating "01/21/92 12:30 PM" and "Windows: 1 of 4". The main input area contains the following text:

```
Rpts: Hist: Split: Status Input          NASPS ACD1
Split: Billing                           Run
                                         Set dest
Date: 01/15/92
```

Below the input area, it says "Destination is printer pr1". At the bottom of the window, there is a row of buttons: Help, Window, Commands, Keep, Exit, a blank button, Current, and MainMenu.

Figure 5-23. Split Status Input Window Example

Field Descriptions

Split:

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Date:

Enter the date you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).
- You can also use a "-" offset based on today's date (for example, -0 for today).

Split Status Report Example

A description of each report item follows the report example in the Split Status Report Description table.

```
Split Status
Date: 1/15/92      Printed: 1/21/92  3:38 PM
Split: Billing      ACD: NASPS ACD1

% Within Service Level: 72.92
ACD Calls:          921      Avg Speed of Answer:    :04
Abandoned Calls: 1      Avg Time to Abandon:   1:07
```

Figure 5-24. Split Status Report Example

Table 5-10. Split Status Report Description



NOTE:

You cannot customize this report.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name or number of the split selected in the Report Input window.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with this split.	SYN(ACD)
% Within Service Level	The percentage of calls that actually received an answer within your acceptable service level.	100 * (ACCEPTABLE / CALLSOFFERED)
ACD Calls	Total number of ACD calls to the split that were handled by an agent (includes calls placed by an adjunct processor).	ACDCALLS
Abandoned Calls	The total number of calls that disconnected while waiting or ringing before being answered.	ABNCALLS
Avg Speed of Answer	The average time a caller waits before being answered.	ANSTIME/ACDCALLS
Avg Time to Abandon	The average time a caller waits before disconnecting.	ABNTIME/ABNCALLS

Split Report >

The Split Report shows the calls handled, agent time and assists, and transfers and holds for each agent in a split.

Things to Know About This Report

- This report shows only the time each agent worked in this particular split. An agent could have worked in other splits during the day.
- This report is available in daily, weekly, and monthly summaries.

Split Report Input Window

You must fill out the Split report input window to run your report. Field descriptions follow the input window.

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Split: Report: Daily Input acd1

Split: Sales Run
Set dest
.....

Date: 02/28/92

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-25. Split Report Daily Input Window Example

Field Descriptions

Split:

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Dates: (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- You can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92).
- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

Split Report Examples

A description of each report item follows the report example follows the report example in the Split Report Description table.

Daily Split Report
 Date: 1/15/92
 Split: Billing
 Printed: 1/21/92 3:19 PM
 ACD: NASPS ACD1

Agent	ACD Calls	Avg Talk Time	Avg After Call	ACD	ACW	Agent Ring	Time AUX	Avail	Staff	Assists	Trans Out	Calls Held	Avg Hold Time
Totals:	921	1:00	2:02	15:29:06	31:08:10	:00:00	1:15:02	13:10:16	61:09:00	0	0	0	
Split01 Agent01	185	1:00	2:01	3:06:07	6:12:01	:00:00	:15:00	2:39:24	12:13:48	0	0	0	
Split01 Agent02	184	1:00	2:02	3:06:25	6:15:45	:00:00	:12:00	2:39:29	12:13:48	0	0	0	
Split01 Agent03	182	1:00	2:03	3:02:57	6:13:36	:00:00	:18:01	2:38:32	12:13:48	0	0	0	
Split01 Agent04	186	1:00	2:02	3:08:05	6:14:08	:00:00	:15:01	2:35:08	12:13:48	0	0	0	
Split01 Agent05	184	1:00	2:02	3:05:32	6:12:40	:00:00	:15:00	2:37:43	12:13:48	0	0	0	

Weekly Split Report
 Week Starting: 1/13/92
 Split: Billing
 Printed: 1/21/92 3:21 PM
 ACD: NASPS ACD1

Agent	ACD Calls	Avg Talk Time	Avg After Call	ACD	ACW	Agent Ring	Time AUX	Avail	Staff	Assists	Trans Out	Calls Held	Avg Hold Time
Totals:	4001	1:00	2:01	67:44	135:02	:00	10:26	81:57	296:33	0	0	0	
Split01 Agent01	796	1:00	2:00	13:29	26:56	:00	2:05	16:33	59:20	0	0	0	
Split01 Agent02	803	1:00	2:00	13:34	26:58	:00	2:03	16:33	59:18	0	0	0	
Split01 Agent03	800	1:00	2:01	13:34	27:00	:00	2:09	16:20	59:18	0	0	0	
Split01 Agent04	803	1:00	2:01	13:35	27:01	:00	2:06	16:14	59:18	0	0	0	
Split01 Agent05	799	1:00	2:01	13:29	27:04	:00	2:01	16:15	59:18	0	0	0	

Monthly Split Report
 Month Starting: 12/ 1/91
 Split: Billing
 Printed: 1/21/92 3:22 PM
 ACD: NASPS ACD1

Agent	ACD Calls	Avg Talk Time	Avg After Call	ACD	ACW	Agent Ring	Time AUX	Avail	Staff	Assists	Trans Out	Calls Held	Avg Hold Time
Totals:	14829	1:46	2:00	441:26	495:56	:00	152:59	842:09	1942:28	0	0	0	
Split01 Agent01	2972	1:46	2:00	88:29	99:44	:00	30:41	168:16	389:15	0	0	0	
Split01 Agent02	2961	1:45	2:00	87:21	98:46	:00	30:43	168:43	387:14	0	0	0	
Split01 Agent03	2971	1:47	2:01	88:45	99:38	:00	30:41	168:16	389:15	0	0	0	
Split01 Agent04	2971	1:47	2:00	88:52	98:53	:00	30:26	169:15	389:15	0	0	0	
Split01 Agent05	2954	1:46	2:01	87:57	98:53	:00	30:25	167:37	387:26	0	0	0	

Figure 5-26. Split Report Examples

Table 5-11. Split Report Description



NOTE:

Database items and calculations apply to the *dagent* table for daily reports, the *wagent* table for weekly reports, the *magent* table for monthly reports. This is a split report, but it uses the agent tables.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name of the split selected in the Report Input window.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Agent	The names of the agents that logged into the split selected in the Report Input window.	SYN(LOGID)
ACD Calls	The number of ACD and direct-agent calls that were offered to the split and handled by the agent. This total will also include O_ACDCALLS if you have the Outgoing Call Management application on ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct on behalf of a split [predictive dialing].)	ACDCALLS + DA_ACDCALLS <TOTAL_ACDCALLS>
Avg Talk Time	Average length of the agent's ACD calls for this split during the period covered.	(ACDTIME+DA_ACDTIME)/ (ACDCALLS+DA_ACDCALLS) <AVG_AGENT_TALK_TIME>
Avg After Call	Average length of after call work sessions by the agent for this split's calls.	(ACWTIME+DA_ACWTIME)/ (ACDCALLS+DA_ACDCALLS) <AVG_AGENT_ACW_TIME>
(Agent Time) ACD	The time the agent spent on all ACD calls for this split.	I_ACDTIME+I_DA_ACDTIME <TOTAL_I_ACDTIME>
(Agent Time) ACW	The amount of time the agent spent working on call-related activities after the call ended (that is, after call work activities) for this split.	I_ACWTIME+I_DA_ACWTIME <TOTAL_I_ACWTIME>

Table 5-11. Split Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
(Agent Time) Ring	The length of time split and direct agent calls rang before the agent answered. (Generic 2 and Generic 3 switches only)	<i>T_RINGTIME</i>
(Agent Time) AUX	The amount of time the agent spent in auxiliary work for all splits.	<i>T_AUXTIME</i>
(Agent Time) Avail	The amount of time the agent spent waiting for an ACD call in this split.	<i>T_AVAILTIME</i>
(Agent Time) Staff	The total time the agent was logged into this split for the period covered.	<i>T_STAFFTIME</i>
Assists	The number of calls for which an agent requested assistance.	<i>ASSISTS</i>
Trans Out	The number of calls transferred by this agent to another destination.	<i>TRANSFERRED</i>
Calls Held	The number of calls put on hold.	<i>HOLDCALLS</i>
Avg Hold Time	Average length of time calls were on hold.	<i>HOLDTIME/HOLDCALLS</i> <AVG_HOLD_TIME>

Summary Report

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

Things to Know About This Report

- Dequeued calls on Generic 3 with vectoring are calls that dequeued from a split and were not answered by a split other than the first split in a VDN to which a call queues.
- Direct agent call data is not included in any of the Split Summary reports. Direct agent calls are not really split calls. (If you wish to include them as split calls, you can create a custom report using agent table data.)
- The Max delay item in the totals line of the report is the maximum delay over the period covered by the entire report.
- This report is available in interval, daily, weekly, and monthly forms.

Split Summary Input Window

You must fill out the Split Summary report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Split: Summary: Interval Input acd1

Split: _____ Run
Date: _____ Set dest
Times: _____

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-27. Split Summary Interval Input Window Example

Field Descriptions

Split: (Interval, Daily, Weekly, and Monthly)

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Date: (for Interval) or **Dates:** (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- For Daily, Weekly, and Monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Split Summary Report Examples

A description of each report item follows the report examples in the Split Summary Report Description table.

Split Summary by Interval

Date: 1/15/92
Split: Billing

Printed: 1/21/92 3:23 PM
ACD: NASPS ACD1

- Dequeued -

Time	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	Avg Queue Calls	% ACD Time	% Ans	Avg Pos Stf	Calls per Pos
Totals:	:09	1:07	92	1:00	2:03	1	1:10	13	19	0		0	93.79	82.14	5	5
11:05-11:20AM	:00		23	1:00	1:59	0	:00	5	7	0		0	89.44	76.67	5	5
11:20-11:35AM	:04		22	1:00	2:01	0	:52	6	8	0		0	92.56	73.33	5	4
11:35-11:50AM	:18		24	1:00	2:06	0	:51	1	1	0		0	98.93	96.00	5	5
11:50-12:05PM	:15	1:07	23	1:00	2:05	1	1:10	1	3	0		0	94.22	85.18	5	5

Daily Split Summary

Split: Billing

Printed: 1/21/92 3:24 PM
ACD: NASPS ACD1

- Dequeued -

Date	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	Avg Queue Calls	% ACD Time	% Ans
Totals:	:04	1:10	4001	1:00	2:01	4	1:28	437	680	0		0	68.38	85.40
1/13/92	:02	1:01	662	1:00	2:01	1	1:01	81	120	0		0	40.95	84.55
1/14/92	:06		796	1:00	2:00	0	1:10	88	119	0		0	77.03	86.99
1/15/92	:04	1:07	921	1:00	2:02	1	1:10	117	182	0		0	76.24	83.42
1/16/92	:04	1:28	793	1:00	2:01	1	1:28	60	119	0		0	88.90	86.86
1/17/92	:05	1:03	829	1:00	2:01	1	1:04	91	140	0		0	74.98	85.46

Weekly Split Summary

Split: Billing

Printed: 1/21/92 3:25 PM
ACD: NASPS ACD1

- Dequeued -

Week Starting	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	Avg Queue Calls	% ACD Time	% Ans
Totals:	:05	1:08	40912	1:00	2:00	27	1:28	3892	6725	0		0	55.91	85.83
12/23/91	:05	1:08	6360	1:00	2:01	9	1:16	588	1036	0		0	53.81	85.89
12/30/91	:05	1:04	10928	1:00	2:00	4	1:10	978	1738	0		0	56.36	86.25
12/30/91	:05	1:04	10928	1:00	2:00	4	1:10	978	1738	0		0	56.36	86.25
1/ 6/92	:05	1:13	8695	1:00	2:00	6	1:24	911	1533	0		0	51.93	84.96
1/13/92	:04	1:10	4001	1:00	2:01	4	1:28	437	680	0		0	68.38	85.40

Monthly Split Summary

Split: Billing

Printed: 1/21/92 3:26 PM
ACD: NASPS ACD1

- Dequeued -

Month Starting	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	Avg Queue Calls	% ACD Time	% Ans
Totals:	:04	1:11	20895	2:28	1:59	266	*****	3516	4535	0		0	42.73	81.32
11/ 1/91	:04	1:11	6066	4:11	1:57	254	*****	1946	2026	0		0	36.49	72.68
12/ 1/91	:04	1:10	14829	1:46	2:00	12	2:39	1570	2509	0		0	48.26	85.47

Figure 5-28. Split Summary Report Examples

Table 5-12. Split Summary Report Description



NOTE:

Database items and calculations apply to the *hsplit* table for interval reports, the *dsplit* table for daily reports, the *wsplit* table for weekly reports, the *msplit* table for monthly reports

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name of the split selected in the Report Input window.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Time (for interval reports only)	The intrahour intervals for which the report shows data (selected in the Report Input window).	STARTTIME
Avg Speed Ans	The average time a caller waits in queue before being answered by an agent.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>
Avg Aban Time	The average time a caller waits in this split's queue or ringing before hanging up.	ABNTIME/ABNCALLS <AVG_ABANDON_TIME>
ACD Calls	The number of calls that were offered to the split and handled by an agent. This total will also include O_ACDCALLS if you have the Outgoing Call Management application of ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	ACDCALLS
Avg Talk Time	Average length of ACD calls during the period covered.	ACDTIME/ACDCALLS <AVG_ACD_TALK_TIME>
Avg After Call	The average time agents spent in after call work for ACD calls.	ACWTIME/ACDCALLS <AVG_ACW_TIME>

Table 5-12. Split Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Aban Calls	The total number of calls that disconnected while waiting. Abandoned calls are only counted for the first split the call queued to.	ABNCALLS
Max Delay	The maximum time caller waited before being served, abandoning, being redirected, receiving a busy signal, or being disconnected.	MAXOCWTIME
Flow In	For switches without vectoring, calls that intraflow or interflow from one split's queue to another split's queue. For Generic 3 switches with vectoring, calls answered by a split other than the first split in a VDN to which a call queues. For Generic 2 with vectoring calls queued in a split other than the originally queued split.	INFLOWCALLS
Flow Out	For switches without vectoring, this item includes the number of calls offered to the split that were redirected to other destinations via intraflow or interflow. For switches with vectoring, this item includes calls redirected via a "route to" step. ■ For the Generic 2 switch with vectoring, this item also includes calls redirected via a "queue to main" or "check backup" step. ■ For Generic 3 switches with vectoring, this item includes calls that were redirected via a "route to" or "messaging split" step and calls that were answered by agents in other splits as a result of multiple split queuing. Outflow is only counted for the first split in a VDN to which a call queues.	OUTFLOWCALLS

Table 5-12. Split Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Extn Out Calls	The number of outbound calls made by agents during the period covered. This includes agents in AUX work and ACW for split and direct agent ACD calls.	ACWOUTCALLS+AUXOUTCALLS <EXT_CALL_OUT>
(Extn Out) Avg Talk Time	Average length of all outbound extension calls placed by agents.	(ACWOUTTIME+AUXOUTTIME) / (ACWOUTCALLS+AUXOUTCALLS) <AVG_TALK_TIME_OUT>
Dequeued Calls	For Generic 3 with vectoring, calls dequeued from and not answered by a split other than the first split in a VDN to which a call actually queued. This item doesn't apply to nonvectoring switches and switches without multiple split queuing.	DEQUECALLS
Dequeued Avg Queue Time	For Generic 3 with vectoring, the average time a call waited until it was answered by a split other than the first split in a VDN to which a call actually queued. This item doesn't apply to nonvectoring switches and switches without multiple split queuing.	DEQUETIME/DEQUECALLS
% ACD Time	Percent of staffed time spent on ACD calls and after call work for this split.	100*((I_ACDTIME+I_ACWTIME)/I_STAFFTIME) <PERCENT_ACD_TIME>
% Ans	Percent of calls that connected to an agent.	100*(ACDCALLS/CALLSOFFERED) <PERCENT_CALL_ANS>

Table 5-12. Split Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Avg Pos Stf (Average Position Staffed) Interval report only	Average number of positions staffed during the interval.	$I\_STAFFTIME / (INTERVAL * 60)$ <AVG_POS_STAFF>
Calls Per Pos (Calls Per Position) Interval report only	Average number of calls handled by an agent position.	$(60 * INTERVAL * ACDCALLS) / I\_STAFFTIME$ <CALLS_PER_POS>

Call Profile Report

The Split Call Profile report shows, in increments of progressively longer wait times, the number of incoming calls handled and abandoned in a split during the specified time period. This report also displays your acceptable service level (defined in “ACD Administration — Split 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.

Things to Know About This Report

- Calls are displayed in ten columns, with each column representing a progressively longer wait time.
- This report is available in daily, weekly, and monthly versions.

Prerequisite System Administration

You must first define your acceptable service level and service level increments for this split in the Split Call Profile Setup window. If you do not define your service level and increments, zero (0) will be used for all increments (and all calls will appear in the first increment). See Chapter 9, “ACD Administration — Split Call Profile Setup,” for more information.



CAUTION:

If you change the service level increments after initially defining them, data will be distorted for the interval in which you made the change. CMS deletes the split call profile data already collected for that interval and only keeps the split call profile data that occurred in that interval after the change. Then CMS tries to combine the split call profile data gathered both before and after the change into a single daily record of split call profile data. As a result, some data is 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 in this 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 Call Profile report will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 1, 5, 7, 10 for the date of the change.

To avoid misleading split 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.

Split Call Profile Input Window

You must fill out the Split Call Profile report input window to run your report. Field descriptions follow the input window.

03/13/928:30 AMCall Management SystemWindows: 1 of 4

Rpts: Hist: Split: Call Profile: Daily Inputacd1

Split: Sales

RunSet dest

Date: 02/28/92

Destination is printer pr1

Figure 5-29. Split Call Profile Daily Input Window Example

Field Descriptions

Split:

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Date: (for Daily, Weekly, and Monthly)

Enter the date you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).

A description of each report items follows the report example in the Split Call Profile Report Description table.

```
Date: 1/15/92          Printed: 1/21/92  3:27 PM
Split: Billing         ACD: NASPS ACD1
% Within Service Level: 73   Service Intervals Changed: NO
                          Acceptable Service Changed: NO
```

[illegible][illegible][illegible]

Month starting: 12/ 1/91 Printed: 1/21/92 3:28 PM
Split: Billing ACD: NASPS ACD1
% Within Service Level: 73 Service Intervals Changed: YES
Acceptable Service Changed: YES

[illegible]

Figure 5-30. Split Call Profile Report Examples

Table 5-13. Split Call Profile Report Description



NOTE:

Database items and calculations apply to the *dsplit* table for daily reports, the *wsplit* table for weekly reports, the *msplit* table for monthly reports

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name of the split selected in the Report Input window.	SYN(SPLIT)
% Within Service Level	Percent of calls connected to an agent within the predefined acceptable service level.	100*(ACCEPTABLE/ CALLSOFFERED) <PERCENT_SERV_LVL_SPL>
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Service Intervals Changed	Yes appears if you changed your service intervals. Otherwise, N (no) appears.	PERIODCHG
Acceptable Service Changed	Yes appears if you changed your acceptable service level. Otherwise, N (no) appears.	SVCLEVELCHG
Secs.	The lower and upper limit in seconds of each service level increment. Each "Secs" (seconds) interval represents a progressively longer wait time for a call in queue, and each interval can be a different length.	PERIOD1-9
Ans (Answered)	The number of ACD calls answered by the split during each time interval.	ACDCALLS1-10
Aban (Abandoned)	The number of calls that abandoned from the split's queue during each time interval. Includes ringing calls. This is the first split queued to in a VDN.	ABNCALLS1-10
Total Calls Answered	The total number of ACD calls answered by the agents in this split.	ACDCALLS

Table 5-13. Split Call Profile Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Average Speed of Answer	The average time a caller waits in queue and ringing before being answered by an agent.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>
Percentage Answered	Percent of calls that were answered by an agent.	100*(ACDCALLS/ CALLSOFFERED) <PERCENT_CALL_ANS>
Total Calls Abandoned	All calls that abandoned before being answered by an agent.	ABNCALLS
Average Time to Abandon	Average time a caller waited before hanging up.	ABNTIME/ABNCALLS <AVG_ABANDON_TIME>
Percentage Abandoned	The percent of calls that abandoned before being answered by an agent.	100*(ABNCALLS/ CALLSOFFERED)) <PERCENT_CALL_ABAN>

Outbound Split Report

This report displays the numbers and average talk times for each type of outbound call for a given split.

Things to Know About This Report

- This report is available in interval, daily, weekly, and monthly forms.
- This report requires the Outgoing Call Management application of ASAI.

Outbound Split Input Window

You must fill out the Outbound Split report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

01/21/92 12:30 PM Call Management System Windows: 1 of 4

Rpts: Hist: Split: Outbound: Interval Input acd1

Split: Billing Run

Date: 1/15/92 Set dest

Times: _____

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-31. Outbound Split Interval Input Window Example

Field Descriptions

Split: (Interval, Daily, Weekly, and Monthly)

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Date: (for Interval) or **Dates:** (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- For Daily, Weekly, and Monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Outbound Split Report Examples

A description of each report item follows the report example in the Outbound Split Report Description table.

Outbound Split by Interval

Date: 1/15/92 Printed: 1/21/92 3:29 PM
Split: Billing ACD: NASPS ACD1

Time	----- Auto-paced -----		----- Extension -----	
	Calls	Avg Talk Time Avg After Call	Calls	Avg Talk Time Adjunct-dialed Calls
Totals:	0		0	0
11:05-11:20AM	0		0	0
11:20-11:35AM	0		0	0
11:35-11:50AM	0		0	0
11:50-12:05PM	0		0	0

Daily Outbound Split

Split: Billing Printed: 1/21/92 3:30 PM
ACD: NASPS ACD1

Date	----- Auto-paced -----		----- Extension -----	
	Calls	Avg Talk Time Avg After Call	Calls	Avg Talk Time Adjunct-dialed Calls
Totals:	0		0	0
1/13/92	0		0	0
1/14/92	0		0	0
1/15/92	0		0	0
1/16/92	0		0	0
1/17/92	0		0	0

Weekly Outbound Split

Split: Billing Printed: 1/21/92 3:31 PM
ACD: NASPS ACD1

Week Starting	----- Auto-paced -----		----- Extension -----	
	Calls	Avg Talk Time Avg After Call	Calls	Avg Talk Time Adjunct-dialed Calls
Totals:	0		0	0
12/23/91	0		0	0
12/30/91	0		0	0
12/30/91	0		0	0
1/ 6/92	0		0	0
1/13/92	0		0	0

Monthly Outbound Split

Split: Billing Printed: 1/21/92 3:32 PM
ACD: NASPS ACD1

Month Starting	----- Auto-paced -----		----- Extension -----	
	Calls	Avg Talk Time Avg After Call	Calls	Avg Talk Time Adjunct-dialed Calls
Totals:	0		0	0
11/ 1/91	0		0	0
12/ 1/91	0		0	0

Figure 5-32. Outbound Split Report Examples

Table 5-14. Outbound Split Report Description



NOTE:

Database items and calculations apply to the *hsplit* table for interval reports, the *dsplit* table for daily reports, the *wsplit* table for weekly reports, the *msplit* table for monthly reports

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, Month Starting	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name of the split selected in the Report Input window.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Time (for interval reports only)	The intrahour intervals for which the report shows data (selected in the Report Input window).	STARTTIME
Auto-paced Calls	The total number of outbound ACD calls placed by an adjunct processor.	O_ACDCALLS
Auto-paced Avg Talk Time	The average length of time an agent spent on an outbound ACD call.	O_ACDTIME/O_ACDCALLS
Auto-paced Avg After Call	The average length of time an agent spent in after call work for an outbound ACD call.	O_ACWTIME/O_ACDCALLS
(Outbound) Extension Calls	The number of outbound extension calls made by agents during the period covered. This includes agents in AUX work and ACW for split and direct-agent ACD calls.	ACWOUTCALLS+AUXOUTCALLS <EXT_CALL_OUT>
(Outbound) Extension Avg Talk Time	Average length of all outbound extension calls placed by agents.	(ACWOUTTIME+AUXOUTTIME)/ (ACWOUTCALLS+AUXOUTCALLS)
(Outbound) Extension Adjunct-Dialed Calls	The number of outbound extension calls that were placed by an adjunct for an agent (keyboard dialed).	ACWOUTADJCALLS+ AUXOUTADJCALLS

Forecast Summary Report

The Forecast Summary report summarizes the activity for an entire split 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 and compare the forecasted numbers to your actual numbers.

NOTE:

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

Things to Know About This Report

- Dequeued calls on Generic 3 with vectoring are calls that dequeued from a split and were not answered by a split other than the first split in a VDN to which a call queues.
- Direct agent call data is not included in the Forecast Summary report. Direct agent calls are not really split calls. If you wish to include them as split calls, you can create a custom report using the agent tables.
- This report is available in the interval version only.

Prerequisite System Administration

You must do the following things to get the forecast data in this report:

- Define a current day configuration for the split 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 Chapter 14, "Forecasting," for more information.

Forecast Summary Input Window

You must fill out the Forecast Summary report input window to run your report. Field descriptions follow the input window example.

03/13/92 8:30 AM Call Management System Windows: 1 of 4

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

Split: _____ Run
Date: _____ Set dest
Times: _____

Sending to printer pr1

Figure 5-33. Forecast Summary Interval Input Window Example

Field Descriptions

Split: (Interval)

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Date: (for Interval)

Enter the date you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).
- You can also use a "-" offset based on today's date (for example, -0 for today).

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Forecast Summary Report Example

A description of each report item follows the report example.

Split Forecast Summary by Interval											Printed: 1/21/92 3:33 PM							
Date: 1/15/92											ACD: NASPS ACD1							
Split: Billing																		
- Dequeued -																		
	Avg Speed	Avg Aban	ACD	Avg Talk	Avg After	Aban	Max	Flow	Flow	Extn	Avg	Avg	%		Avg	Calls	Avg	
Time	Ans	Time	Calls	Time	Call	Calls	Delay	In	Out	Out	Talk	Queue	ACD	%	Pos	per	Pos	
										Calls	Time	Time	Time	Ans	Stf	Pos	Req	
Totals:	:09	1:07	92	1:00	2:03	1	1:10	13	19	0		0	93.79	82.14	5	5		
11:05-11:20AM	:00		23	1:00	1:59	0	:00	5	7	0		0	89.44	76.67	5	5		
11:20-11:35AM	:04		22	1:00	2:01	0	:52	6	8	0		0	92.56	73.33	5	4		
11:35-11:50AM	:18		24	1:00	2:06	0	:51	1	1	0		0	98.93	96.00	5	5		
11:50-12:05PM	:15	1:07	23	1:00	2:05	1	1:10	1	3	0		0	94.22	85.18	5	5		

Figure 5-34. Forecast Summary Report Example

Table 5-15. Forecast Summary Report Description



NOTE:

Database items for Avg Pos Req and Fcst Calls apply to the *f_cdayrep* table. The rest of the database items apply to the *hsplit* table for interval.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name of the split selected in the Report Input window.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Time	The intrahour intervals for which the report shows data (selected in the Report Input window).	STARTTIME
Avg Speed Ans	The average time a caller waits before being answered by an agent.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>
Avg Aban Time	The average time a caller waits before hanging up.	ABNTIME/ABNCALLS <AVG_ABANDON_TIME>

Table 5-15. Forecast Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
ACD Calls	The number of calls that were offered to the split and handled by an agent. This total will also include O_ACDCALLS if you have the Outgoing Call Management application of ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	ACDCALLS
Avg Talk Time	Average length of ACD calls during the period covered.	ACDTIME/ACDCALLS <AVG_ACD_TALK_TIME>
Avg After Call	The average time agents spent in after call work for ACD calls.	ACWTIME/ACDCALLS <AVG_ACW_TIME>
Aban Calls	The total number of calls that disconnected while waiting in queue or ringing. This is the first split queued in the VDN.	ABNCALLS
Max Delay	The maximum time caller waited before being served, abandoning, being redirected receiving a busy signal, or being disconnected.	MAXOCWTIME
Flow In	For nonvectoring switches, calls that intraflow or interflow from one split's queue to another split's queue. For Generic 3 switches with vectoring, calls answered by a split other than the first split in a VDN to which a call queues. For Generic 2 <i>with vectoring</i> , calls queued in a split other than the originally queued split.	INFLOWCALLS

Table 5-15. Forecast Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Flow Out	For switches without vectoring, this item includes the number of calls offered to the split that were redirected to other destinations via intraflow or interflow. For switches with vectoring, this item includes calls redirected via a "route to" step. ■ For the Generic 2 switch with vectoring, this item also includes calls redirected via a "queue to main" or "check backup" step. ■ For Generic 3 switches with vectoring, this item includes calls that were redirected via a "route to" or "messaging split" step and calls that were answered by agents in other splits as a result of multiple split queuing. Outflow is only counted for the first split in a VDN to which a call queues.	OUTFLOWCALLS
Extn Out Calls	The number of outbound calls made by agents during the period covered. This includes agents in AUX work and ACW for split and direct agent ACD calls.	ACWOUTCALLS+AUXOUTCALLS <EXT_CALL_OUT>
(Extn Out) Avg Talk Time	Average length of all outbound extension calls placed by agents.	(ACWOUTTIME+AUXOUTTIME)/ (ACWOUTCALLS+AUXOUTCALLS) <AVG_TALK_TIME_OUT>
Dequeued Calls	For Generic 3 with vectoring, calls dequeued from and not answered by a split other than the first split in a VDN to which a call actually queued. This item doesn't apply to nonvectoring switches and switches without multiple-split queuing.	DEQUECALLS

Table 5-15. Forecast Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Dequeued Avg Queue Time	For Generic 3 with vectoring, the average time a call waited until it was answered by a split other than the first split in a VDN to which a call actually queued. This item doesn't apply to nonvectoring switches and switches without multiple-split queuing.	DEQUETIME/DEQUECALLS
% ACD Time	Percent of staffed time spent on ACD calls and after call work.	100*(I_ACDTIME+I_ACWTIME)/I_STAFFTIME) <PERCENT_ACDTIME>
% Ans	Percent of queued calls that connected to an agent.	100*(ACDCALLS/CALLSOFFERED) <PERCENT_CALL_ANS>
Avg Pos Stf (Average Position Staffed)	Average number of positions staffed during the interval.	I_STAFFTIME/(INTERVAL*60)
Calls Per Pos (Calls Per Position)	Average number of calls handled by an agent position during the interval. (If an agent is staffed a portion interval, the calculation reports what the agent would have handled had the agent been staffed the entire interval.)	(60*INTERVAL*ACDCALLS)/I_STAFFTIME <CALLS_PER_POS>
Avg Pos Req (Average Position Required)	Average number of agent positions required to answer ACD calls as forecast by the Forecasting feature. (You must have the Forecasting feature).	NUMAGREQ This item comes from the <i>f_cdayrep</i> table.
Fcst Calls (Forecast Calls)	The number of calls forecast for this split for the given interval. (You must have the Forecasting feature.)	FCALLS This item comes from the <i>f_cdayrep</i> table.



System Reports

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

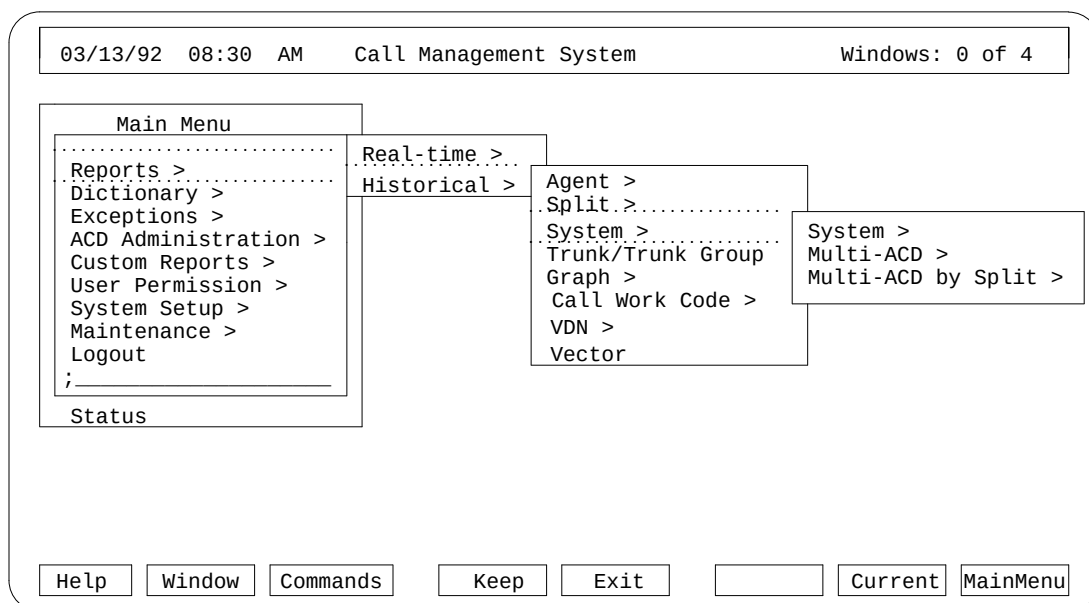


Figure 5-35. System Report Menu

System Report

The System report summarizes the activity for a set of splits measured for an ACD. You can use this report to compare split performance for splits performing similar functions.

Things to Know About This Report

- This report is available in daily, weekly, or monthly forms.
- If you have a nonvectoring switch, the report item **Flow In** represents the number of forwarded calls that were accepted by the split. **Flow Out** represents the number of calls forwarded to another destination. In many cases, the summary numbers for **Flow Out** of one split may not match **Flow In** numbers for another split. These numbers may not match because calls were intraflowed into unmeasured splits, extensions within the ACD, or elsewhere. Also, the **Flow In** and **Flow Out** for a given split will normally not be equal.
- If you have a Generic 3 switch with vectoring, the report item **Flow In** represents the calls answered by a split other than the first split in a VDN to which a call queues. **Flow out** is reported for the first split in this case. The report item **Flow Out** represents calls redirected via a "route to" step and include calls that ring at the agent's voice terminal and go to coverage (another station or the attendant).
- Statistics in the report such as % **AUX** (percent auxiliary work) and **Number of Extension-Out Calls** are indicators of activities not directly related to ACD traffic.

System Report Input Window

You must fill out the System report input window to run your report. Field descriptions follow the input window.

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: System: Daily Input acdl

Splits: Sales;Customer Service;Accounts Payable Run Set dest

Date: 02/28/92

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-36. System Report Daily Input Window Example

Field Descriptions

Splits:

Enter the appropriate split names or numbers. See on-line help for the valid numerical entries for your particular switch.

Date: (for Daily, Weekly, and Monthly)

Enter the date you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).

System Report Examples

A description of each report item follows the report example in the System Report Description table.

Daily System													
Date: 1/15/92													
Printed: 1/21/92 3:38 PM ACD: NASPS ACD1													
Split	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans
Totals:	:15	1:11	4640	1:00	2:01	103	1:30	512	512	0		76.31	88.30
Billing	:04	1:07	921	1:00	2:02	1	1:10	117	182	0		76.24	83.42
Order_Inquiry	:15	1:09	945	1:00	2:01	26	1:30	156	171	0		77.58	82.75
Complaints	:27	1:13	925	1:00	2:02	48	1:29	122	42	0		75.90	91.13
Legal	:06		948	1:00	2:00	0	:58	40	77	0		77.68	92.49
Education	:25	1:09	901	1:00	2:01	28	1:23	77	40	0		74.15	92.98

Weekly System													
Week Starting: 1/13/92													
Printed: 1/21/92 3:39 PM ACD: NASPS ACD1													
Split	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans
Totals:	:16	1:09	20075	1:00	2:01	393	1:31	2087	2087	0		68.55	89.00
Billing	:04	1:10	4001	1:00	2:01	4	1:28	437	680	0		68.38	85.40
Order_Inquiry	:17	1:10	4076	1:00	2:00	79	1:30	590	674	0		69.62	84.41
Complaints	:26	1:10	4013	1:00	2:01	186	1:30	481	154	0		68.45	92.19
Legal	:08	1:04	4074	1:00	2:01	5	1:16	209	370	0		69.58	91.57
Education	:25	1:09	3911	1:00	2:01	119	1:31	370	209	0		66.71	92.26

Monthly System													
Month Starting: 12/ 1/91													
Printed: 1/21/92 3:40 PM ACD: NASPS ACD1													
Split	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans
Totals:	:16	1:09	76903	1:43	1:59	1798	21:34	8229	8229	0		48.69	88.46
Billing	:04	1:10	14829	1:46	2:00	12	2:39	1570	2509	0		48.26	85.47
Order_Inquiry	:17	1:09	15264	1:45	2:00	329	8:46	2301	2485	0		49.48	84.43
Complaints	:26	1:10	14495	1:47	2:01	722	21:34	1912	789	0		47.14	90.56
Legal	:09	1:10	15438	1:44	2:00	42	6:14	1068	1378	0		49.76	91.58
Education	:26	1:08	16877	1:34	1:54	693	20:21	1378	1068	0		48.80	90.55

Figure 5-37. System Report Examples

Table 5-16. System Report Description



NOTE:

Database items and calculations apply to the *dsplit* table for daily reports, the *wsplit* table for weekly reports, the *msplit* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week starting, Month starting	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number that is sending calls to this agent.	SYN(ACD)
Split	The names of the splits selected in the Report Input window.	SYN(SPLIT)
Avg Speed Ans	The average time a caller waits before being answered by an agent.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>
Avg Aban Time	The average time a caller waits before hanging up.	ABNTIME/ABNCALLS <AVG_ABANDON_TIME>
ACD Calls	The number of calls that were offered to the splits and handled by the agents. This total will also include O_ACDCALLS if you have the Outgoing Call Management application of ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	ACDCALLS
Avg Talk Time	Average length of ACD calls during the period covered.	ACDTIME/ACDCALLS <AVG_ACD_TALK_TIME>
Avg After Call	The average time agents spent in after call work for ACD calls (or “related” ACD calls).	ACWTIME/ACDCALLS <AVG_ACW_TIME>
Aban Calls	The total number of callers that disconnected while waiting in queue or ringing.	ABNCALLS

Table 5-16. System Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Max Delay	The maximum time caller waited before being served, abandoning, being redirected receiving a busy signal, or being disconnected. The totals value is the maximum (Max Delay) over all splits in the report.	MAXOCWTIME
Flow In	For nonvectoring switches, calls that intraflow or interflow from one split's queue to another split's queue. For Generic 3 switches with vectoring, calls answered by a split other than the first split in a VDN to which a call queues. For Generic 2 <i>with vectoring</i>, calls queued in a split other than the originally queued split.	INFLOWCALLS
Flow Out	For switches without vectoring, this item includes the number of calls offered to the split that were redirected to other destinations via intraflow or interflow. For switches with vectoring, this item includes calls redirected via a "route to" step. ■ For the Generic 2 switch with vectoring, this item also includes calls redirected via a "queue to main" or "check backup" step. ■ For Generic 3 switches with vectoring, this item includes calls that were redirected via a "route to" or "messaging split" step and calls that were answered by agents in other splits as a result of multiple split queuing. Outflow is only counted for the first split in the VDN to which a call queues.	OUTFLOWCALLS

Table 5-16. System Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Extn Out Calls	The number of outbound calls made by agents during the period covered. This includes agents in AUX work and ACW for split and direct-agent ACD calls.	(ACWOUTCALLS+AUXOUTCALLS) <EXT_CALL_OUT>
(Extn Out) Avg Talk Time	Average length of all outbound extension calls placed by agents.	(ACWOUTTIME+AUXOUTTIME)/ (ACWOUTCALLS+AUXOUTCALLS) <AVG_TALK_TIME_OUT>
% ACD Time	Percent of staffed time spent on after call work and ACD calls.	100*((I_ACDTIME+ I_ACWTIME)/I_STAFFTIME) <PERCENT_ACD_TIME>
% Ans	Percent of calls that were answered by an agent.	100*(ACDCALLS/CALLSOFFERED) <PERCENT_CALL_ANS>

Multi-ACD > System Report

The Multi-ACD system report summarizes data over all splits 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.

Things to Know About This Report

- This report is available in daily, weekly, and monthly versions.
- With vectoring, you may want to create a custom report that summarizes over all VDNs.

Multi-ACD System Report Input Window

You must fill out the Multi-ACD System report input window to run your report. Field descriptions follow the input window.

03/13/92 8:30 AM Call Management System Windows: 1 of 4

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

ACDs: _____ Run
Set dest
.....

Date: _____

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-38. Multi-ACD System Report Daily Input Window Example

Field Descriptions

ACDs :

Enter the appropriate ACD name(s) or number(s).

Date: (for Daily, Weekly, and Monthly)

Enter the date you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).

Multi-ACD System Report Examples

A description of each report item follows the report example.

Daily Multi-ACD System Report												
Date: 1/15/92					Printed: 1/21/92 3:41 PM							
ACD	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans	
Totals:	:41	1:09	79131	3:10	:47	8573	5:00	0		78.05	88.08	
NASPS ACD1	:41	1:09	79131	3:10	:47	8573	5:00	0		78.05	88.08	

Weekly Multi-ACD System Report												
Week Starting: 1/13/92					Printed: 1/21/92 3:41 PM							
ACD	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans	
Totals:	:39	1:09	327299	3:08	:49	33651	5:00	0		66.98	88.12	
NASPS ACD1	:39	1:09	327299	3:08	:49	33651	5:00	0		66.98	88.12	

Monthly Multi-ACD System Report												
Month Starting: 12/ 1/91					Printed: 1/21/92 3:42 PM							
ACD	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans	
Totals:	:22	1:09	1129213	3:14	:43	66898	21:34	0		35.04	92.14	
NASPS ACD1	:22	1:09	*****	3:14	:43	66898	21:34	0		35.04	92.14	

Figure 5-39. Multi-ACD System Report Examples

⇒ NOTE:

Database items and calculations apply to the *dsplit* table for daily reports, the *wsplit* table for weekly reports, the *msplit* table for monthly reports.

Table 5-17. Multi-ACD System Report Description

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week starting, Month starting	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD names or numbers that are sending calls.	SYN(ACD)
Avg Speed Ans	The average time a caller waits before being answered by an agent.	sum(ANSTIME)/sum(ACDCALLS) <AVG_ANSWER_SPEED_SUM>
Avg Aban Time	The average time a caller waits before hanging up.	sum(ABNTIME)/sum(ABNCALLS) <AVG_ABANDON_TIME_SUM>
ACD Calls	The number of calls that were offered to the splits and handled by the agents. This total will also include O_ACDCALLS if you have the Outgoing Call Management application of ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	sum(ACDCALLS)
Avg Talk Time	Average length of ACD calls during the period covered.	sum(ACDTIME)/sum(ACDCALLS) <AVG_ACD_TALK_TIM_SUM>
Avg After Call	The average time agents spent in after call work for ACD calls.	sum(ACWTIME)/sum(ACDCALLS) <AVG_ACW_TIME_SUM>
Aban Calls	The total number of callers that disconnected while waiting in queue or ringing.	sum(ABNCALLS)

Table 5-17. Multi-ACD System Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Max Delay	The maximum time caller waited before being served, abandoning, being redirected, receiving a busy signal, or being disconnected.	sum(MAXOCWTIME)
Extn Out Calls	The number of outbound extension calls made by agents during the period covered. This includes agents in AUX work and ACW for split and direct-agent ACD calls.	sum(ACWOUTCALLS+ AUXOUTCALLS) sum(<EXT_CALL_OUT>)
(Extn Out) Avg Talk Time	Average length of all outbound extension calls placed by agents.	sum(ACWOUTTIME+AUXOUTTIME)/ sum(ACWOUTCALLS+AUXOUTCALLS) <AVG_TALK_TIME_OUT_SUM>
% ACD Time	Percent of staffed time spent on after call work and ACD calls.	100*(sum(I_ACDTIME+ I_ACWTIME)/sum(I_STAFFTIME)) <PERCENT_ACD_TIME_SUM>
% Ans	Percent of calls that were answered by an agent.	100*(sum(ACDCALLS)/ sum(CALLSOFFERED)) <PERCENT_CALL_ANS_SUM>

Multi-ACD by Split Report

The Multi-ACD by Split report displays call-handling information on different splits and ACDs at the same time. It allows you to evaluate and compare similar splits 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.

Things to Know About This Report

- You may specify a list of splits for each ACD desired.
- You cannot customize this report.
- This report is available in daily, weekly, and monthly versions.

Multi-ACD by Split Input Window

You must fill out the Multi-ACD report input window to run your report. Field descriptions follow for each type of input window (that is, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: System: Multi-ACD by Split: Daily Input

Date: _____ : Run
Split(s): _____ : Set dest
ACD: _____ :
Split(s): _____
ACD: _____
Split(s): _____
ACD: _____
Split(s): _____
ACD: _____
Split(s): _____

Destination is file output.413 v

Help Window Commands Keep Exit Current MainMenu

Figure 5-40. Multi-ACD by Split Daily Input Window Example

Field Descriptions

Date: (Daily, Weekly, or Monthly)

Enter the date you want the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).

Split(s):

Enter the split name(s) or number(s) for the ACD you want displayed in the report. See on-line help for the valid numerical entries for your particular switch.

ACD:

Enter the ACD name or number that corresponds to the previous **Split(s)** field.

Multi-ACD System Report by Split Examples

A description of each report item follows the report example.

Daily Multi-ACD System Report by Split														
Date: 1/15/92					Printed: 1/21/92 3:43 PM									
Split	ACD	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans
Totals:		:15	1:11	4640	1:00	2:01	103	1:30	512	512	0	76.31	88.30	
Billing	NASPS ACD1	:04	1:07	921	1:00	2:02	1	1:10	117	182	0	76.24	83.42	
Order_Inquiry	NASPS ACD1	:15	1:09	945	1:00	2:01	26	1:30	156	171	0	77.58	82.75	
Complaints	NASPS ACD1	:27	1:13	925	1:00	2:02	48	1:29	122	42	0	75.90	91.13	
Legal	NASPS ACD1	:06		948	1:00	2:00	0	:58	40	77	0	77.68	92.49	
Education	NASPS ACD1	:25	1:09	901	1:00	2:01	28	1:23	77	40	0	74.15	92.98	

Weekly Multi-ACD System Report by Split														
Week Starting: 1/13/92					Printed: 1/21/92 3:44 PM									
Split	ACD	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans
Totals:		:16	1:09	20075	1:00	2:01	393	1:31	2087	2087	0	68.55	89.00	
Billing	NASPS ACD1	:04	1:10	4001	1:00	2:01	4	1:28	437	680	0	68.38	85.40	
Order_Inquiry	NASPS ACD1	:17	1:10	4076	1:00	2:00	79	1:30	590	674	0	69.62	84.41	
Complaints	NASPS ACD1	:26	1:10	4013	1:00	2:01	186	1:30	481	154	0	68.45	92.19	
Legal	NASPS ACD1	:08	1:04	4074	1:00	2:01	5	1:16	209	370	0	69.58	91.57	
Education	NASPS ACD1	:25	1:09	3911	1:00	2:01	119	1:31	370	209	0	66.71	92.26	

Monthly Multi-ACD System Report by Split														
Month Starting: 12/ 1/91					Printed: 1/21/92 3:46 PM									
Split	ACD	Avg Speed Ans	Avg Aban Time	ACD Calls	Avg Talk Time	Avg After Call	Aban Calls	Max Delay	Flow In	Flow Out	Extn Out Calls	Avg Talk Time	% ACD Time	% Ans
Totals:		:16	1:09	76903	1:43	1:59	1798	21:34	8229	8229	0	48.69	88.46	
Billing	NASPS ACD1	:04	1:10	14829	1:46	2:00	12	2:39	1570	2509	0	48.26	85.47	
Order_Inquiry	NASPS ACD1	:17	1:09	15264	1:45	2:00	329	8:46	2301	2485	0	49.48	84.43	
Complaints	NASPS ACD1	:26	1:10	14495	1:47	2:01	722	21:34	1912	789	0	47.14	90.56	
Legal	NASPS ACD1	:09	1:10	15438	1:44	2:00	42	6:14	1068	1378	0	49.76	91.58	
Education	NASPS ACD1	:26	1:08	16877	1:34	1:54	693	20:21	1378	1068	0	48.80	90.55	

Figure 5-41. Multi-ACD System Report by Split Examples

Table 5-18. Multi-ACD by Split Report Description



NOTE:

This report cannot be customized. However, database items and calculations apply to the *dsplit* table for daily reports, the *wsplit* table for weekly reports, and the *msplit* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Printed	Date and time the report was sent to the printer.	No database item or calculation.
Split	The split name selected in the Report Input window.	SYN(SPLIT)
ACD	The ACD name or number associated with the split(s).	SYN(ACD)
Avg Speed Ans	The average time a caller waits in queue before being connected to an agent.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>
Avg Aban Time	The average time a caller waits in queue or ringing before hanging up.	ABNTIME/ABNCALLS <AVG_ABANDON_TIME>
ACD Calls	The number of calls that were offered to the split and handled by an agent. This total will also include O_ACDCALLS if you have the Outgoing Call Management application of ASAI. (O_ACDCALLS is the number of ACDCALLS that were placed by an adjunct [predictive dialing].)	ACDCALLS
Avg Talk Time	Average length of ACD calls during the period covered.	ACDTIME/ACDCALLS <AVG_ACD_TALK_TIME>
Avg After Call	The average time agents spent in after call work regarding ACD calls.	ACWTIME/ACDCALLS <AVG_ACW_TIME>
Aban Calls	The total number of callers that disconnected while waiting in queue or ringing.	ABNCALLS

Table 5-18. Multi-ACD Report by Split Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Max Delay	The maximum time caller waited before being served, abandoning, being redirected, receiving a busy signal, or being disconnected.	MAXOCWTIME
Flow In	For nonvectoring switches, calls that intraflow or interflow from one split's queue to another split's queue. For Generic 3 switches with vectoring, calls answered by a split other than the first split in a VDN to which a call queues. For Generic 2 <i>with vectoring</i>, calls queued in a split other than the originally queued split.	INFLOWCALLS
Flow Out	For switches without vectoring, this item includes the number of calls offered to the split that were redirected to other destinations via intraflow or interflow. For switches with vectoring, this item includes calls redirected via a "route to" step. ■ For the Generic 2 switch with vectoring, this item also includes calls redirected via a "queue to main" or "check backup" step. ■ For Generic 3 switches with vectoring, this item includes calls that were redirected via a "route to" or "messaging split" step and calls that were answered by agents in other splits as a result of multiple split queuing. Outflow is only counted for the primary first split in a VDN to which a call queues.	OUTFLOWCALLS

Table 5-18. Multi-ACD Report by Split Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Extn Out Calls	The number of outbound calls made by agents during the period covered. This includes agents in AUX work and ACW for split and direct-agent ACD calls.	(ACWOUTCALLS+AUXOUTCALLS) <EXT_CALL_OUT>
(Extn Out) Avg Talk Time	Average length of all outbound extension calls placed by agents.	(ACWOUTTIME+AUXOUTTIME)/ (ACWOUTCALLS+AUXOUTCALLS) <AVG_TALK_TIME_OUT>
% ACD Time	Percent of staffed time spent on after call work and ACD calls.	100*((I_ACDTIME+ I_ACWTIME)/I_STAFFTIME) <PERCENT_ACD_TIME>
% Ans	Percent of queued calls that connected to an agent.	100*(ACDCALLS/CALLSOFFERED) <PERCENT_CALL_ANS>

Trunk/Trunk Group Reports

From the Trunk/Trunk Group menu (Figure 5-42), 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.

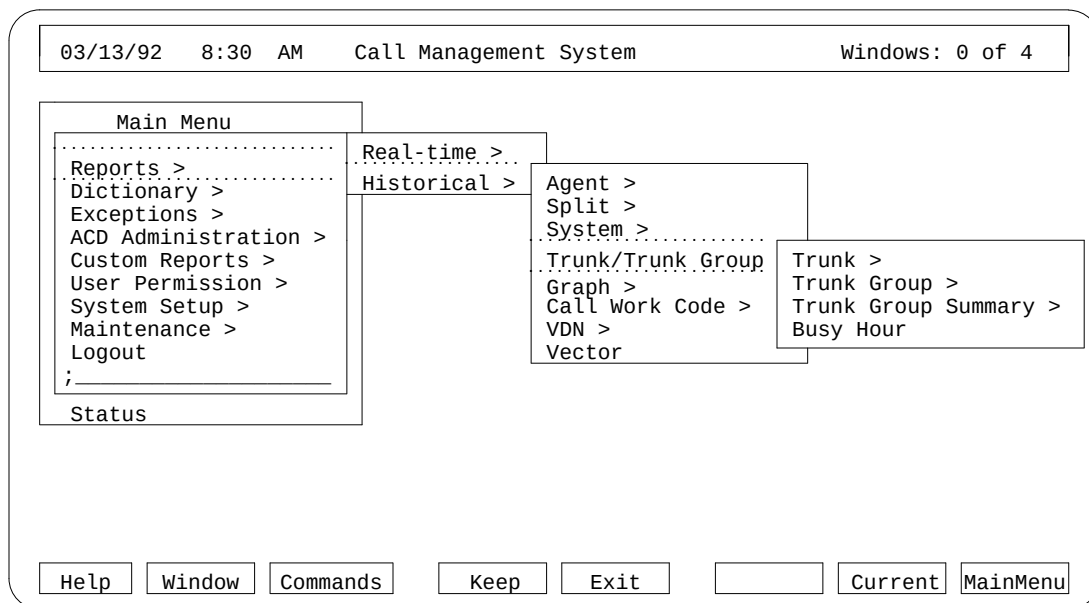


Figure 5-42. Trunk/Trunk Group Menu

Trunk States

The trunk states have the following meanings:

IDLE	The trunk is waiting for a call.
CONN	The caller and agent are connected on an ACD call.
QUEUED	An ACD call has seized a trunk and is queued to a split waiting for an agent to answer.
SEIZED	A call is hold the trunk, either incoming or outgoing.
MBUSY	The trunk is maintenance busy, out of service for maintenance purposes.
HOLD	The agent has put the caller on this trunk on hold.
UNKNOWN	CMS doesn't recognize the state (for example, when the link first comes up and CMS is not receiving ACD data).
DABN	The queued caller abandoned the call. The trunk quickly goes to idle.
FBUSY	Forced busy. The caller receives forced busy signal if you have a Generic 1, Generic 3, or Generic 2/System 85 with Call Vectoring.
FDISC	The caller receives a forced disconnect. This appears only if you have the Vectoring feature.
RING	A call is ringing at the agent's voice terminal.

Trunk Report

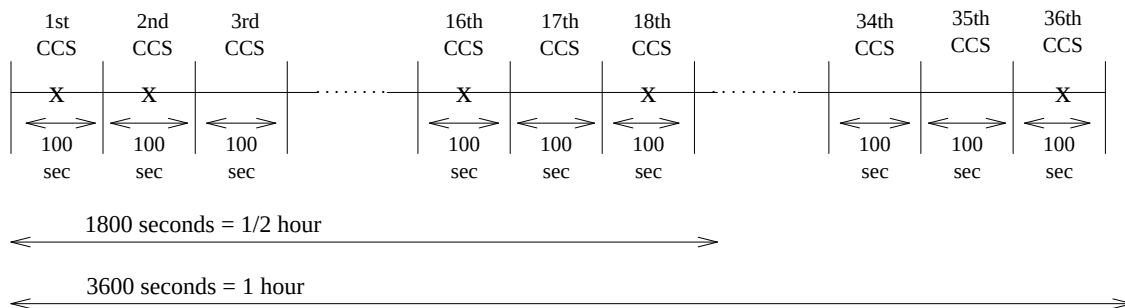
The Trunk report displays call traffic data for a single trunk. With this report, you can review trunks in any measured trunk group.

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.

Things to Know About This Report

- This report is available in interval, daily, weekly, and monthly versions.
- The report item Centum Call Seconds (CCS) is the number of 100-second increments in which the trunk was busy during the intrahour interval. A trunk is "seized" while the call is both in queue and connected to an agent. Therefore, wait time for abandoned calls is figured into the CCS figures. For example, since a half-hour has 1800 seconds, the maximum CCS for each trunk in a trunk group is 18 CCS. Multiplying 18 CCS by the number of trunks in a trunk group will give you the maximum occupancy for the trunk group, which you can then compare with your actual CCS. If your intrahour interval is 15 or 60 minutes, your number will be different. A CCS example follows.

x = The trunk for this 100-second increment is busy.
(The trunk may not be busy for the entire 100-second increment)



Trunk Report Input Window

You must fill out the Trunk Report report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Trunk/Trunk Group: Trunk: Interval Input acd1

Trunk location: _____ Run Set dest

Date: _____

Times: _____

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-43. Trunk Report Interval Input Window Example

Field Descriptions

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 table for specific switch limits.

	Module	Cabinet	Carrier	Slot	Circuit
Generic 2.1, System 85 R2V4	00-30	00-07	0-3	00-20	00-03
Generic 2.1 with a Universal Module	00-30	00	A-E	01-20	00-11
Generic 1.1, Generic 3	01	01	A-E Must be uppercase	01-20	01-12

Date: (for Interval) or **Dates:** (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on “Tuesday,” you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a “-” offset based on today’s date (for example, -0 for today).
- For Daily, Weekly, and Monthly reports, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Trunk Report Example

A description of each report item follows the report in the Trunk Report Description table.

Interval Trunk

Date: mm/dd/yy

Trunk group: xxxxxxxxxxxxxxxxxxxxxxxx

Trunk location: xxxxxxxx

Printed: mm/dd/yy hh:mm AM

ACD: xxxxxxxxxxxxxxxxxxxxxxxxx

Time	Inbound				Outbound				Time Maint Busy
	Calls Carr	Calls Aban	Avg Trk	Total CCS	Calls Carr	Calls Aban	Avg Trk	Total CCS	
			Holding Time				Holding Time		
Totals:	xxxxx	xxxxx	mm:ss	xxxx.xx	xxxxx	xxxxx	mm:ss	xxxx.xx	xx:xx
XX:XX-XX:XXAM	xxxxx	xxxxx	mm:ss	xxxx.xx	xxxxx	xxxxx	mm:ss	xxxx.xx	mm:ss
XX:XX-XX:XXAM	xxxxx	xxxxx	mm:ss	xxxx.xx	xxxxx	xxxxx	mm:ss	xxxx.xx	mm:ss
XX:XX-XX:XXAM	xxxxx	xxxxx	mm:ss	xxxx.xx	xxxxx	xxxxx	mm:ss	xxxx.xx	mm:ss
XX:XX-XX:XXAM	xxxxx	xxxxx	mm:ss	xxxx.xx	xxxxx	xxxxx	mm:ss	xxxx.xx	mm:ss
XX:XX-XX:XXAM	xxxxx	xxxxx	mm:ss	xxxx.xx	xxxxx	xxxxx	mm:ss	xxxx.xx	mm:ss

Figure 5-44. Trunk Report Example

Table 5-19. Trunk Report Description



NOTE:

Database items and calculations apply to the *htrunk* table for interval reports, the *dtrunk* table for daily reports, the *wtrunk* table for weekly reports, and the *mtrunk* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Trunk group	The trunk group associated with this trunk.	SYN(TKGRP)
Trunk location	Trunk number (physical equipment location) associated with the trunk.	EQLOC
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with the trunk group.	SYN(ACD)
Inbound Calls Carr	Total number of inbound calls carried by this trunk for the specified time period.	INCALLS
Inbound Calls Aban	Total number of inbound calls abandoned by the caller for the specified time period.	ABNCALLS
Inbound Avg Trk Holding Time	Average holding time for all incoming calls, including queue time.	INTIME/INCALLS <AVG_TRK_HOLD_TIME_IN>
Inbound Total CCS	Total trunk occupancy by incoming calls during the specified time period.	INTIME(in seconds)/100
Outbound Calls Carr	The number of outbound calls that were carried by this trunk.	OUTCALLS
Outbound Calls Aban	The number of outbound calls abandoned at the far end.	O_ABNCALLS

Table 5-19. Trunk Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Outbound Avg Trk Holding Time	Average holding time of all outgoing calls on this trunk.	<i>OUTTIME/OUTCALLS</i> <i><AVG_TRK_HOLD_TIM_OUT></i>
Outbound Total CCS	Total trunk occupancy of outgoing calls during the specified time period.	<i>OUTTIME(in seconds)/100</i>
Time Maint Busy	The total time of all maintenance-busy periods for this trunk for the time period.	<i>MBUSYTIME</i>

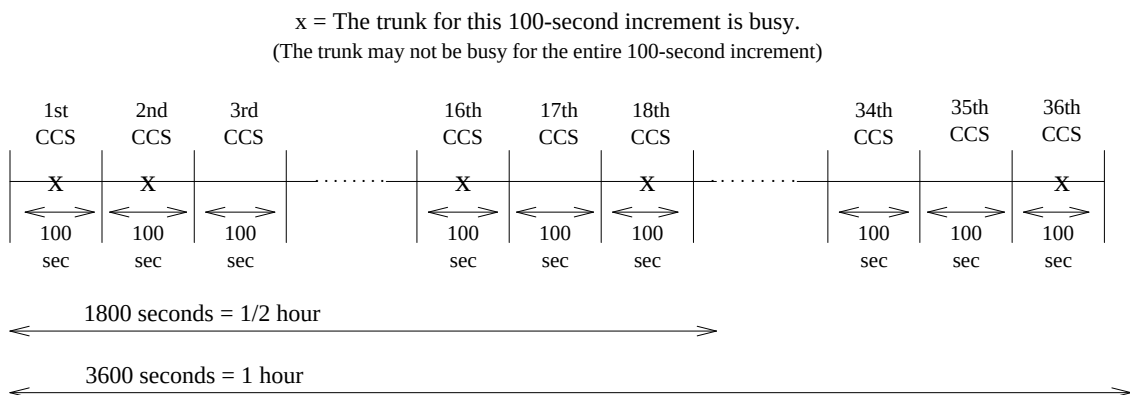
Trunk Group Report

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.

Things to Know About This Report

- This report is available in daily, weekly, and monthly versions.
- The report item Centum Call Seconds (CCS) is the number of 100-second increments in which the trunk was busy during the intrahour interval. A trunk is "seized" while the call is both in queue and connected to an agent. Therefore, wait time for abandoned calls is figured into the CCS figures. For example, since a half-hour has 1800 seconds, the maximum CCS for each trunk in a trunk group is 18 CCS. Multiplying 18 CCS by the number of trunks in a trunk group will give you the maximum occupancy for the trunk group, which you can then compare with your actual CCS. If your intrahour interval is 15 or 60 minutes, your number will be different. A CCS example follows.



Trunk Group Report Input Window

You must fill out the Trunk Group report input window to run your report. Field descriptions follow for each type of input window (that is, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Trunk/Trunk Group: Trunk Group: Daily Input acd1

Trunk group: _____ Run
Date: _____ Set dest

Destination is printer pr1

Help Window Commands Keep Exit Current MainMenu

Figure 5-45. Trunk Group Report Daily Input Window Example

Field Descriptions

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.

Date: (for Interval) or Dates: (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92) . 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- For Daily, Weekly, and Monthly report, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Trunk Group Report Examples

A description of each report item follows the report example in the Trunk Group Report Description table.

Daily Trunk Group

Date: 1/15/92 Printed: 1/21/92 3:51 PM
Trunk group: Billing_TG ACD: NASPS ACD1

Trunk Location	Inbound				Outbound				Trunk Failures
	Calls Carr	Calls Aban	Holding Time	Total CCS	Calls Carr	Calls Aban	Holding Time	Total CCS	
Totals:	1213	1	:52	630.01	0	0		0.00	0
0101A0102	693	1	:43	296.07	0	0		0.00	0
0101A0103	441	0	1:03	279.48	0	0		0.00	0
0101A0104	73	0	1:08	49.57	0	0		0.00	0
0101A0105	6	0	1:22	4.89	0	0		0.00	0

Weekly Trunk Group

Week Starting: 1/13/92 Printed: 1/21/92 3:52 PM
Trunk group: Billing_TG ACD: NASPS ACD1

Trunk Location	Inbound				Outbound				Trunk Failures
	Calls Carr	Calls Aban	Holding Time	Total CCS	Calls Carr	Calls Aban	Holding Time	Total CCS	
Totals:	5852	4	:49	2846.83	0	0		0.00	0
0101A0102	3581	2	:39	1394.34	0	0		0.00	0
0101A0103	1880	2	1:03	1187.30	0	0		0.00	0
0101A0104	372	0	1:08	251.50	0	0		0.00	0
0101A0105	19	0	1:12	13.69	0	0		0.00	0

Monthly Trunk Group

Month Starting: 12/ 1/91 Printed: 1/21/92 3:53 PM
Trunk group: Billing_TG ACD: NASPS ACD1

Trunk Location	Inbound				Outbound				Trunk Failures
	Calls Carr	Calls Aban	Holding Time	Total CCS	Calls Carr	Calls Aban	Holding Time	Total CCS	
Totals:	27525	12	1:09	*****	0	0		0.00	0
000000004	544	0	1:40	543.58	0	0		0.00	0
000000008	116	0	7:25	515.92	0	0		0.00	0
000000012	112	0	7:25	498.44	0	0		0.00	0
000000100	98	0	7:25	435.86	0	0		0.00	0

Figure 5-46. Trunk Group Report Examples

Table 5-20. Trunk Group Report Description



NOTE:

Database items and calculations apply to the *dtrunk* table for daily reports, the *wtrunk* table for weekly reports, and the *mtrunk* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week starting, Month starting	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Trunk group	The trunk group for which report was requested.	SYN(TKGRP)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with the trunk group.	SYN(ACD)
Trunk location	Trunk number (physical equipment location) associated with the trunk.	EQLOC
Inbound Calls Carr	Total number of inbound calls carried by this trunk for the specified time period.	sum(INCALLS)
Inbound Calls Aban	Total number of inbound calls abandoned by the caller for the specified time period.	sum(ABNCALLS)
Inbound Avg Trk Holding Time	Average holding time for all incoming calls, including queue time.	sum(INTIME)/sum(INCALLS) <AVG_TRK_HOLD_IN_SUM>
Inbound Total CCS	Total trunk occupancy by incoming calls during the specified time period.	sum(INTIME)(in seconds)/100
Outbound Calls Carr	The number of outbound calls that were carried by this trunk.	sum(OUTCALLS)
Outbound Calls Aban	The number of outbound calls (if you have the Outgoing Call Management application on ASAI) abandoned at the far end.	sum(O_ABNCALLS)

Table 5-20. Trunk Group Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Outbound Avg Trk Holding Time	Average holding time of all outgoing calls on this trunk.	<i>sum(OUTTIME)/sum(OUTCALLS)</i> <AVG_TRK_HOLD_OUT_SUM>
Outbound Total CCS	Total trunk occupancy of outgoing calls during the specified time period.	<i>sum(OUTTIME)(in seconds)/100</i>
Trunk Failures	The number of trunk failures for this trunk or total for the trunk group. Can be hardware failures or failures due to internal switch errors.	<i>sum(FAILURES)</i>

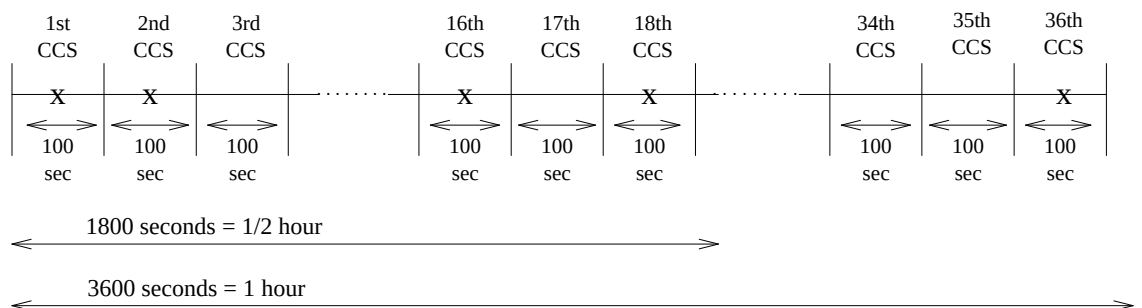
Trunk Group Summary Report

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.

Things to Know About This Report

- For both inbound and outbound calls, calls carried = calls answered + calls abandoned + other calls. Also, other calls = calls given a busy signal + calls disconnected by the switch + calls answered by an unmeasured agent.
- The report item Centum Call Seconds (CCS) is the number of 100-second increments in which the trunk was busy during the intrahour interval. A trunk is "seized" while the call is both in queue and connected to an agent. Therefore, wait time for abandoned calls is figured into the CCS figures. For example, since a half-hour has 1800 seconds, the maximum CCS for each trunk in a trunk group is 18 CCS. Multiplying 18 CCS by the number of trunks in a trunk group will give you the maximum occupancy for the trunk group, which you can then compare with your actual CCS. If your intrahour interval is 15 or 60 minutes, your number will be different. A CCS example follows.

x = The trunk for this 100-second increment is busy.
(The trunk may not be busy for the entire 100-second increment)



- The report item “% Time All Trunks Busy,” which is a good indicator of how many callers are being blocked (getting a busy signal), should be a relatively low figure in most call centers.
- This report is available in interval, daily, weekly, and monthly versions.

Trunk Group Summary Input Window

You must fill out the Trunk Group Summary report input window to run your report. Field descriptions follow for each type of input window (that is, interval, daily, weekly, and monthly).

03/13/92 8:30 AM Call Management System Windows: 1 of 4

Rpts: Hist: Trunk/Trunk Group: Trunk Group Summary: Interval Input acd1

Trunk Group: _____ :Run
Date: _____ :Set dest
Times: _____ :

Destination is printer pr1

Help Window Commands Keep Exit

Current MainMenu

Figure 5-47. Trunk Group Summary Interval Input Window Example

Field Descriptions

Trunk group: (Interval, 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.

Date: (for Interval) or **Dates:** (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- For Daily, Weekly, and Monthly report, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92). For weekly and monthly reports, specifying a range will produce all weeks and/or months that begin in the range.

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

Trunk Group Summary Report Examples

A description of each report item follows the report example in the Trunk Group Summary Report Description table.

Interval Trunk Group Summary															
Date: 1/15/92															
Trunk group: Billing_TG															
Number of trunks: 20															
Printed: 1/21/92 3:54 PM															
ACD: NASPS ACD1															
Time	Inbound						Outbound						% Time		
	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Far End Comp	All Blckd Busy	% Time Maint Busy
Totals:	99	98	1	0	1:09	68.09	0	0	0	0		0.00	0	0	0.00
11:05-11:20AM	25	25	0	0	1:00	15.00	0	0	0	0		0.00	0	0	0.00
11:20-11:35AM	24	24	0	0	1:03	15.22	0	0	0	0		0.00	0	0	0.00
11:35-11:50AM	24	24	0	0	1:18	18.65	0	0	0	0		0.00	0	0	0.00
11:50-12:05PM	26	25	1	0	1:14	19.22	0	0	0	0		0.00	0	0	0.00

Daily Trunk Group Summary															
Trunk group: Billing_TG															
Number of trunks: 20															
Printed: 1/21/92 3:55 PM															
ACD: NASPS ACD1															
Date	Inbound						Outbound						% Time		
	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Far End Comp	All Blckd Busy	% Time Maint Busy
Totals:	5852	4244	4	1604	:49	2846.83	0	0	0	0		0.00	0	0	0.00
1/13/92	1613	701	1	911	:35	562.07	0	0	0	0		0.00	0	0	0.00
1/14/92	1035	827	0	208	:52	543.10	0	0	0	0		0.00	0	0	0.00
1/15/92	1213	986	1	226	:52	630.01	0	0	0	0		0.00	0	0	0.00
1/16/92	884	852	1	31	1:02	546.01	0	0	0	0		0.00	0	0	0.00

Weekly Trunk Group Summary															
Trunk group: Billing_TG															
Number of trunks: 20															
Printed: 1/21/92 3:56 PM															
ACD: NASPS ACD1															
Week Starting	Inbound						Outbound						% Time		
	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Far End Comp	All Blckd Busy	% Time Maint Busy
Totals:	73145	43745	27	29373	:46	*****	0	0	0	0		0.00	0	0	0.00
12/23/91	11824	6808	9	5007	:45	5315.88	0	0	0	0		0.00	0	0	0.00
12/30/91	38734	23376	8	15350	:46	*****	0	0	0	0		0.00	0	0	0.00
1/ 6/92	16735	9317	6	7412	:44	7338.87	0	0	0	0		0.00	0	0	0.00
1/13/92	5852	4244	4	1604	:49	2846.83	0	0	0	0		0.00	0	0	0.00

Monthly Trunk Group Summary															
Trunk group: Billing_TG															
Number of trunks: 20															
Printed: 1/21/92 3:57 PM															
ACD: NASPS ACD1															
Month Starting	Inbound						Outbound						% Time		
	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Calls Carr	Calls Ans	Calls Aban	Other Calls	Holding Time	Total CCS	Far End Comp	All Blckd Busy	% Time Maint Busy
Totals:	42232	22179	266	19787	1:25	*****	0	0	0	0		0.00	0	0	0.00
11/ 1/91	14232	6146	254	7832	1:51	*****	0	0	0	0		0.00	0	0	0.00
12/ 1/91	28000	16033	12	11955	1:12	*****	0	0	0	0		0.00	0	0	0.00

Figure 5-48. Trunk Group Summary Report Examples

Table 5-21. Trunk Group Summary Report Description



NOTE:

Database items and calculations apply to the *htkgrp* table for interval reports, the *dtkgrp* table for daily reports, the *wtkgrp* table for weekly reports, and the *mtkgrp* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week starting, Month starting	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Trunk group	The trunk group for which the report was requested.	SYN(TKGRP)
Number of trunks Printed	The number of trunks in the trunk group. Date and time the report was sent to the printer.	TRUNKS No database item or calculation.
ACD	The ACD name or number associated with the trunk group.	SYN(ACD)
Time (for interval reports only)	The intrahour intervals for which the report shows data (selected in the Report Input window).	STARTTIME
Inbound Calls Carr	Total number of inbound calls carried by this trunk group for the specified time period.	sum(INCALLS)
Inbound Calls Ans	Total number of inbound calls answered by agents for the specified time period.	sum(ACDCALLS)
Inbound Calls Aban	Total number of inbound calls abandoned by the caller for the specified time period.	sum(ABNCALLS)
Inbound Other Calls	The number of inbound calls that were forced busy, disconnected, answered extension calls, or other inbound calls of any other disposition.	sum(OTHERCALLS)
Inbound Avg Trk Holding Time	Average trunk holding time for all incoming calls. (This is the average length of time a typical call made use of a trunk, that is, the trunk could not be used for another call during that time.)	sum(INTIME)/sum(INCALLS) <AVG_TRK_HOLD_IN_SUM>

Table 5-21. Trunk Group Summary Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Inbound Total CCS	Total trunk occupancy by incoming calls during the specified time period.	<i>sum(INTIME)(in seconds)/100</i>
Outbound Calls Carr	The number of outbound calls that were carried by this trunk group.	<i>sum(OUTCALLS)</i>
Outbound Calls Ans	Total number of outbound calls (if you have the Outgoing Call Management application on ASAI) that were offered to one or more splits and handled by an agent in one of those splits.	<i>sum(O_ACDCALLS)</i>
Outbound Calls Aban	The number of outbound calls (if you have the Outgoing Call Management application on ASAI) abandoned at the far end.	<i>sum(O_ABNCALLS)</i>
Other Calls	The number of outbound calls that were given a busy or disconnect by the switch, extension-out calls, and calls of unknown disposition.	<i>sum(O_OTHERCALLS)</i>
Outbound Avg Trk Holding Time	Average trunk holding time for outgoing calls on this trunk.	<i>sum(OUTTIME)/ sum(OUTCALLS)</i> <AVG_TRK_HOLD_OUT_SUM>
Outbound Total CCS	Total trunk occupancy of outgoing calls during the specified time period.	<i>sum(OUTTIME)(in seconds)/100</i>
Outbound Far End Comp	The number of outbound calls that were answered at the far end.	<i>sum(COMPLETED)</i>
Outbound Calls Blckd	With Generic 2/System 85 only, the number of outbound call attempts that were blocked because all the trunks were busy.	<i>sum(BLOCKAGE)</i>
% Time All Trunks Busy	The percentage of time that all trunks were busy.	<i>100*sum(ALLINUSETIME/ INTERVAL)</i>
% Time Maint Busy	The percentage of time that trunks were out of service for maintenance during the specified time period.	<i>100*sum(MBUSYTIME/ INTERVAL*TRUNKS))</i>

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.

Things to Know About This Report

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

Busy Hour Input Window

You must fill out the Busy Hour report input window to run your report. Field descriptions follow for each type of input window.

The screenshot shows a terminal window titled "Call Management System" with a status bar at the top displaying "03/13/92 8:30 AM" and "Windows: 1 of 4". The main content area contains a form titled "Rpts: Hist: Trunk/Trunk Group: Busy Hour Input" with a sub-header "acd1". The form has two input fields: "Trunk Groups:" followed by a horizontal line, and "Date:" followed by a horizontal line. To the right of these fields is a vertical menu with options "Run", "Set", and "dest", each preceded by a colon. Below the form, the text "Destination is printer pr1" is displayed. At the bottom of the window is a row of buttons: "Help", "Window", "Commands", "Keep", "Exit", an empty button, "Current", and "MainMenu".

Figure 5-49. Busy Hour Input Window Example

Field Descriptions

Trunk groups: (Daily)

Enter the appropriate trunk group name(s) or number(s). See on-line help for the valid numerical entries for your particular switch.

Date:

Enter the date you would like the report to cover.

- You can also use a "-" offset based on today's date (for example, -0 for today).

Busy Hour Report by Trunk Group Example

A description of each report item follows the report example in the table "Busy Hour Report by Trunk Group Description."

Busy Hour by Trunk Group										
Date: 1/15/92			Printed: 1/21/92 3:58 PM							
			ACD: NASPS ACD1							
Trunk Group	Busy Hour	Avg Trk Holding Time	Calls Carried	Inbound Calls Carried	Outbound Calls Carried	ACD Calls Answered	Calls Aban	Other Calls	% Time Trunks Busy	All % Occ
Order_Inquiry_TG	12:00AM		0	0	0	0	0	0	0.00	0.00
Complaints_TG	9:20AM	:01:35	101	101	0	95	6	0	0.00	13.31
Legal_TG	12:00AM		0	0	0	0	0	0	0.00	0.00
Education_TG	11:50AM	:01:33	100	100	0	98	2	0	0.00	12.89
Pet_Owners_TG	12:00AM		0	0	0	0	0	0	0.00	0.00
Pet_Owners_HI_TG	12:00AM		0	0	0	0	0	0	0.00	0.00

Figure 5-50. Busy Hour Report by Trunk Group Example

Table 5-22. Busy Hour Report by Trunk Group Description



NOTE:

You cannot customize this report.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day for which the report shows data (selected in the Report Input window).	ROW_DATE
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with the trunk group.	SYN(ACD)
Trunk group	The trunk group for which the report was requested.	SYN(TKGRP)
Busy Hour	The start time of the hour in which the trunk group was the busiest.	BH_STARTTIME
Avg Trk Holding Time	The average holding time for all incoming and outgoing calls in the trunk group.	(BH_INTIME+BH_OUTTIME)/ (BH_INCALLS+BH_OUTCALLS)
Calls Carried	Total number of all incoming and outgoing calls carried by this trunk group.	BH_INCALLS+BH_OUTCALLS
Inbound Calls Carried	The total number of all incoming calls carried by this trunk group.	BH_INCALLS
Outbound Calls Carried	The total number of all outgoing calls carried by this trunk group.	BH_OUTCALLS
ACD Calls Answered	Total number of all ACD calls carried by this trunk group and handled by an agent.	BH_ACDCALLS+BH_OACDCALLS
Calls Aban	Total number of all calls abandoned by callers on this trunk group. With vectoring, this includes calls that were abandoned from vector processing. With Generic 2.2, this includes calls that were abandoned from the VDN. With Generic 3, this includes all calls that were abandoned.	BH_ABNCALLS+BH_OABNCALLS

Table 5-22. Busy Hour Report by Trunk Group Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Other Calls	The number of calls that received a busy signal, calls disconnected, extension calls, and calls of unknown disposition.	<i>BH_OTHERCALLS + BH_OOTHERCALLS</i>
% Time All Trunks Busy	The percentage of time during the hour that all trunks were busy.	<i>BH_ALLINUSETIME/36</i>
% Occ	Percentage of time during the hour that trunks were occupied by incoming and outgoing calls.	<i>(BH_INTIME+BH_OUTTIME)/36</i>

Graph Reports

General Information

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

The Graph menu follows, along with additional graph-report information and descriptions for each graph report.

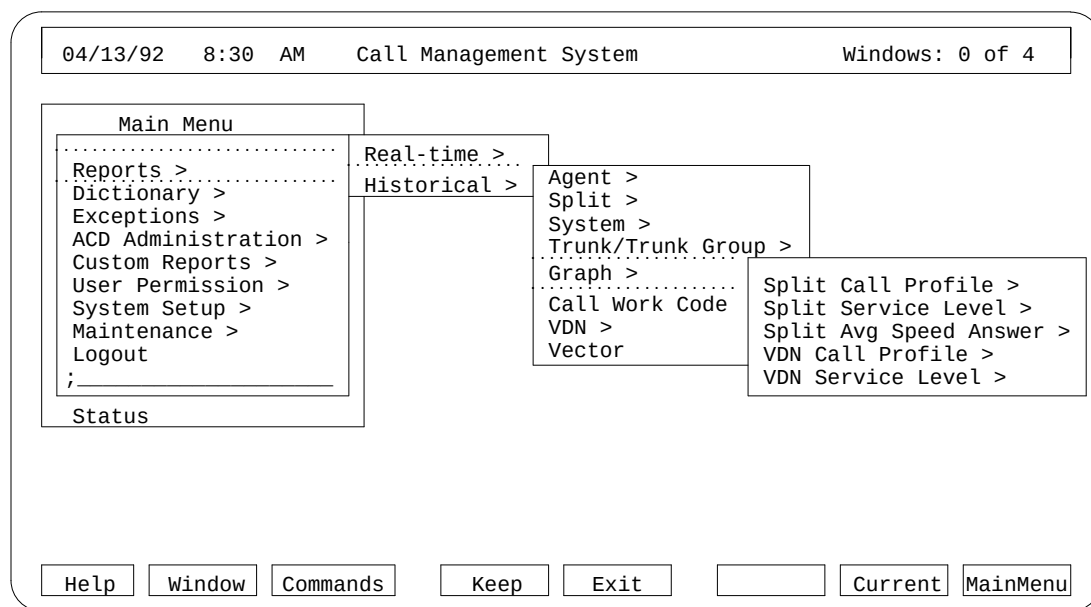


Figure 5-51. Historical Graph Reports Menu

Intensity/Color of Bars

The intensity/color of the bars on a graph report depends on whether the data has crossed either the *first* or *second* threshold limit. With monochrome terminals, three levels of intensity are used to display the bars. With 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**, or **Warning** conditions. The following table helps to explain the three intensity/color levels.

Condition	Monochrome Terminal	Color Terminal	Default Color
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

Things to Know About Graph Reports

- Graph reports are designed to work on character terminals only.
- With color terminals, you change the colors by selecting the **Options** menu item from the **Commands** SLK. See Chapter 2, "User Basics — Changing Your Terminal's Colors," for the procedures.
- Bar graphs use standard Dictionary calculations.
- When the value of the data displayed on a bar is greater than the maximum value given for that bar, "****" are displayed on the top line of the bar.
- Bar graphs are printed using periods as the bar. Once the *first threshold* is met, the bar is printed using the plus (+) sign. When the *second threshold* is met, the bar is printed using the pound (#) sign.
- If your thresholds and maximums do not change much on a day-to-day basis, you can set up the input parameters once and then save them as your default values. See Chapter 2, "User Basics — Defaults," for the procedures.

Terms

The following terms will help you understand and use the graph reports.

- **First threshold** — The lower limit you enter for a particular condition in the report. The bar(s) change color/intensity when the defined limit is met or exceeded. You are telling the system that when this limit is met, you want to be notified that a caution condition could exist.
- **Second threshold** — The upper limit you enter for a particular condition in the report. When this defined limit is met, the bar(s) change color/intensity. You are telling the system that when this second limit is met or exceeded, you want to be notified that a possible warning condition exists.
- **Normal condition** — The bars in the graph are within your acceptable limits.
- **Caution condition** — The bars in the graph have changed color or intensity indicating that the data being displayed met or exceeded your defined *first threshold* limit, or the bars have changed from the Warning condition back to the Caution condition.
- **Warning condition** — The bars in the graph have changed color or intensity indicating that the data being displayed met or exceeded your defined *second threshold* limit.

Split Call Profile Graph

The Split 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 during the specified time period. This report also displays your acceptable service level (defined in “ACD Administration — Split 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.

Things to Know About This Report

- Calls are displayed in ten columns, with each column representing a progressively longer wait time.
- This report is available in daily, weekly, and monthly versions.

Prerequisite System Administration

ADC Administration

You must first define your acceptable service level and service level increments for this split in the Split Call Profile Setup window. See Chapter 9, “ACD Administration — Split Call Profile Setup,” for more information.



CAUTION:

If you change the service level increments after initially defining them, data will be distorted for the interval in which you made the change. CMS deletes the split call profile data already collected for that interval and only keeps the split call profile data that occurred in that interval after the change. Then CMS tries to combine the split call profile data gathered both before and after the change into a single daily record of split call profile data. As a result, some data is 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 Call Profile report will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 1, 5, 7, 10 for the date of the change.

To avoid misleading split 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.

Dictionary

If you are using names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 7, "Dictionary," for more information.

Split Call Profile Graph Input Window

From this window, you will set the parameters for the Split Call Profile Graph report. You must fill out this window to run the report. Field descriptions follow the window.

The screenshot shows a window titled "Call Management System" with a status bar at the top displaying "03/20/92 08:30 AM" and "Windows: 1 of 4". The main content area has a title bar "Rpts: Hist: Graph: Split Call Profile: Daily Input" and a button "ACD1". Below the title bar is a form with the following fields: "Split: _____", "Date: _____", "Maximum number of calls answered: _____", "First calls abandoned threshold: _____", and "Second calls abandoned threshold: _____". To the right of the form is a button labeled "Run Set dest". At the bottom of the window, it says "Destination is printer1".

Figure 5-52. Split Call Profile Graph Daily Input Window Example

Field Descriptions

Split:

Enter the split 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: (for Daily, Weekly, and 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, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

- You can also use a "-" offset based on today's date (for example, -0 for today).

Maximum number of calls answered:

Enter the maximum number of calls that you anticipate will be answered during the increment.

- This number appears on the vertical axis of the bar graph under Answered.
- The bars in this graph will equal or exceed this number when they are at maximum height.

First calls abandoned threshold:

Enter the number of abandoned calls that will 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 will change color/intensity when the first threshold is met or exceeded.

Second calls abandoned threshold:

Enter the number of abandoned calls that will 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 will change color/intensity when the second threshold is met or exceeded.

Split Call Profile Graph Report Example

A description of each report item follows the report example in the Split Call Profile Graph Report Description table.

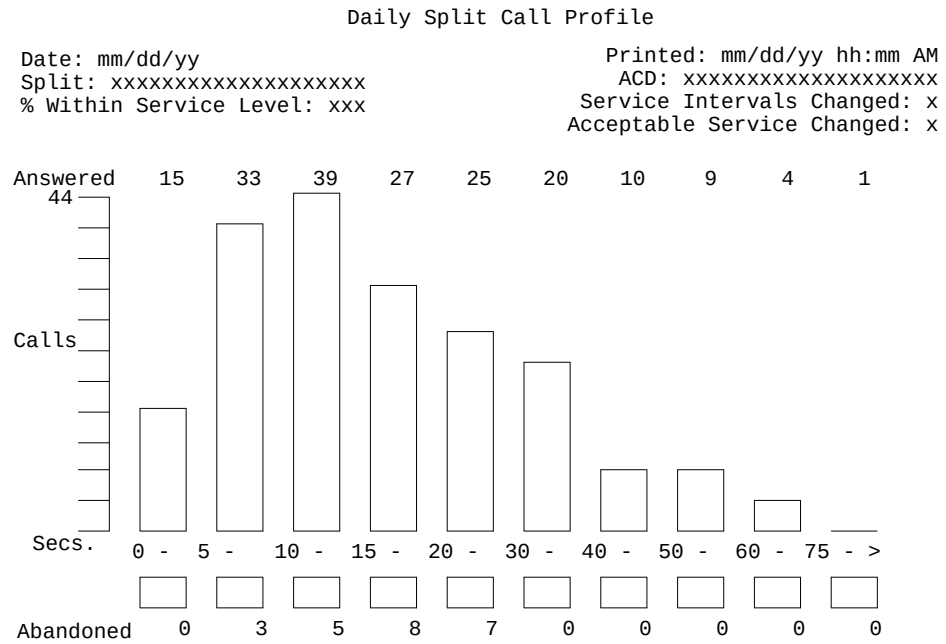


Figure 5-53. Split Call Profile Graph Report Example

Table 5-23. Split Call Profile Graph Report Description



NOTE:

Database items and calculations apply to the *dsplit* table for daily reports, the *wsplit* table for the weekly reports, and the *msplit* table for the monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week Starting, or Month Starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name or number of the split you are currently viewing.	SYN(SPLIT)
% Within Service Level	Percent of ACD calls answered by an agent within the predefined acceptable service level.	100*(ACCEPTABLE/ CALLSOFFERED) <PERCENT_SERV_LVL_SPL>
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with the trunk group.	SYN(ACD)
Service Intervals Changed	YES or NO appears if you changed your service intervals.	PERIODCHG
Acceptable Service Changed	YES or NO appears if you changed your acceptable service level.	SVCLEVELCHG
(Calls) Answered	The number of calls answered by the split during the current interval within the specified increment.	ACDCALLS1-10
Secs. (Seconds)	The lower and upper limit in seconds of each service level increment. Each increment of seconds represents a progressively longer wait time for a call in queue to be answered or abandoned, and each increment can be a different length.	PERIOD1-9

Table 5-23. Split Call Profile Graph Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Abandoned	The number of calls that abandoned from the split's queue or from ringing within each of the service level increments. Calls in each increment are represented by numbers. The bars do not change in height, but do change color when an upper or lower threshold is reached. This is the first split queued to in a VDN.	<i>ABNCALLS1-10</i>

Split Service Level Graph

This bar graph report displays the percentage of split ACD calls answered within your designated service level for the given time period.

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 will change to the caution color, and then to the warning color.

Things to Know Before You Start

- Percentages for each increment or day are displayed in separate bars on the graph. Actual numbers do not appear.
- If you changed your acceptable service level in the middle of the day, the Split Service Level Graph report may show incorrect data. The data may be incorrect because, when CMS tries to summarize intrahour data into a daily record, CMS may incorrectly assign data stored at one service level to a different service level defined later in the day.
- 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 the bars get shorter), the bars will change to the caution color/intensity, and then to the warning color/intensity.
- This report is available in interval and daily versions.

Prerequisite System Administration

You must first define your acceptable service level for this split in the Split Call Profile Setup window. See Chapter 9, “ACD Administration — Split Call Profile Setup,” for more information.

If you are using names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 7, “Dictionary,” for more information.

Split Service Level Graph Input Window

From this window, you will set the parameters for the Split Service Level Graph report. You must fill out this window to run the report. Field descriptions follow the window.

03/20/92 08:30 AM Call Management System Windows: 1 of 1

Rpts: Hist: Graph: Split Service Level: Interval Input ACD1

Split: _____ Run
Date: _____ Set dest
Times: _____
Second Service Level Percentage Threshold: ____
First Service Level Percentage Threshold ____

Destination is printer1

Figure 5-54. Split Service Level Graph Interval Input Window Example

Field Descriptions

Split:

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Date: (for Interval) or Dates: (for Daily)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).
- You can also use a "-" offset based on today's date (for example, -0 for today).
- For a Daily report, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92).

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

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 bar is actually the caution condition bar.

- 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) will be lower than the normal condition bar(s). Any percentage that meets or falls below the value enter in this field will indicate 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 bar is actually the warning condition bar.

- 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) will be lower than the caution condition bar(s). Any percentage that meets or falls below the value enter in this field will indicate a warning condition.

Split Service Level Graph Report Example

A description of each report item follows the report example in the Split Service Level Graph Report Description table.

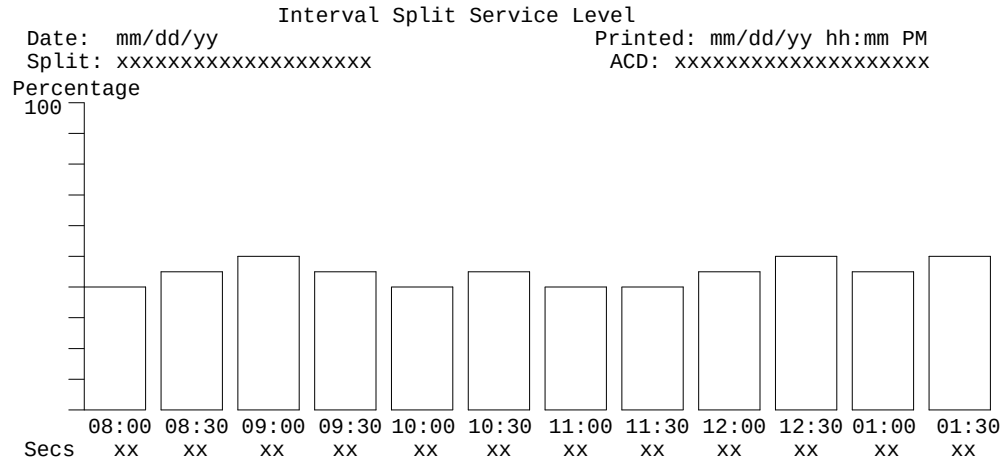


Figure 5-55. Split Service Level Graph Report Example

Table 5-24. Split Service Level Graph Report Description



NOTE:

Database items and calculations apply to the *hsplit* table for interval reports and the *dsplit* table for daily reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name or number of the split you are currently viewing.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with the split.	SYN(ACD)
Percentage Secs	Percentage of ACD calls that were answered by an agent within the predefined acceptable service level. The lower and upper limit in seconds of each service level increment. Each "Secs" (seconds) interval represents a progressively longer wait time for both answered and abandoned calls in queue. Each service level increment can be a different length (defined in the Split Call Profile Setup window).	100*(ACCEPTABLE/ CALLSOFFERED) <PERCENT_SERV_LVL_SPL> PERIOD1-9

Avg Speed Answer Graph

This bar graph report shows the average speed of answer for split ACD calls.

Things to Know About This Report

- The number of seconds that calls wait for each increment or day are displayed in separate bars on the graph.
- This report is available in interval and daily versions.

Prerequisite System Administration

If you are using names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 7, "Dictionary," for more information.

Avg Speed Answer Graph Input Window

From this window, you will set the parameters for the Avg Speed Answer Graph report. You must fill out this window to run the report. Field descriptions follow the window.

03/20/92	08:30 AM	Call Management System	Windows: 1 of 2

Rpts: Hist: Graph: Split Avg Speed of Answer: Interval Input ACD1	
Split: _____	Run
Date: _____	Set dest
Times: _____	
Maximum average speed of answer (secs): ____	
First avg answer speed threshold (secs): ____	
Second avg answer speed threshold (secs): ____	
Destination is printer1	

Figure 5-56. Avg Speed Answer Graph Interval Input Window Example

Field Descriptions

Split:

Enter the appropriate split name or number. See on-line help for the valid numerical entries for your particular switch.

Date: (for Interval) or Dates: (for Daily)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 3/21/92).
- You can also use a "-" offset based on today's date (for example, -0 for today).
- For a Daily report, you can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92).

Times: (Interval only)

Enter the time you would like the report to cover.

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-17:00).

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 will equal or exceed this number when they are at maximum height.

First avg answer speed threshold

Enter the number of seconds that will 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 will change color/intensity when this first threshold is met or exceeded.

Second avg answer speed threshold

Enter the number of seconds that will 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 will change color/intensity when this second threshold is met or exceeded.

Avg Speed Answer Graph Report Examples

A description of each report item follows the report examples in the Avg Speed Answer Graph Description table.

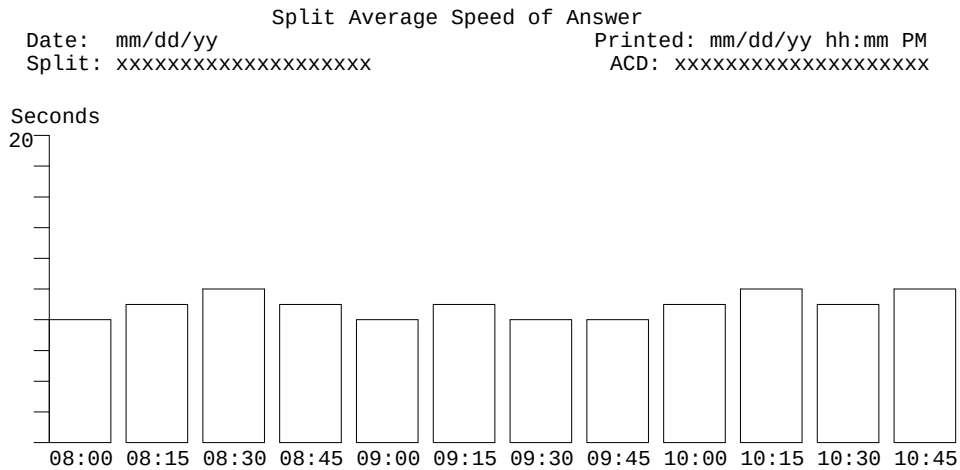


Figure 5-57. Avg Speed Answer Interval Report Example

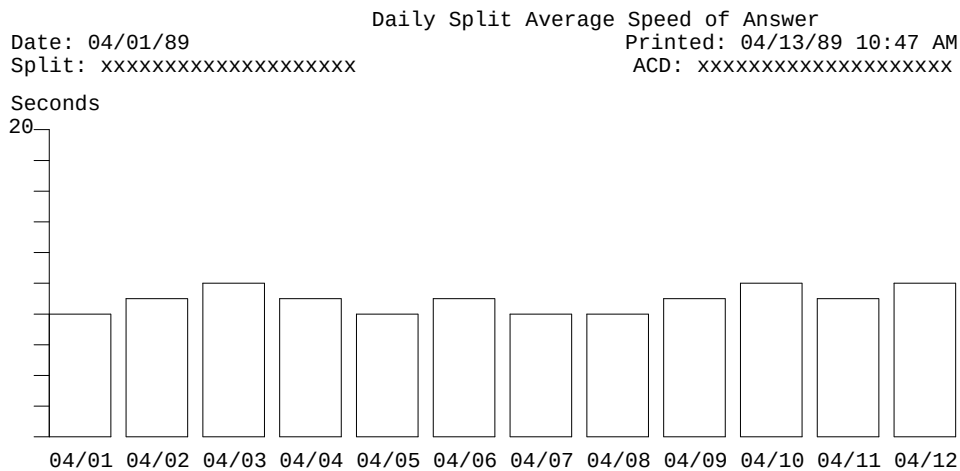


Figure 5-58. Avg Speed Answer Daily Report Example

Table 5-25. Avg Speed Answer Graph Report Description



NOTE:

Database items and calculations apply to the *hsplit* table for interval reports and the *dsplit* table for daily reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day for which the report shows data (selected in the Report Input window).	ROW_DATE
Split	The name or number of the split you are currently viewing.	SYN(SPLIT)
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with the split.	SYN(ACD)
Seconds	The average speed of answer during the interval or day.	ANSTIME/ACDCALLS <AVG_ANSWER_SPEED>

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 timeframe. 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.

Things to Know About This Report

- If you have not purchased the CMS Vectoring feature and Graphics package, you will not see this menu item.
- The report can display daily, weekly, or monthly data.
- The bars representing answered/connected calls vary in height according to the number of answered/connected calls.
- The bars representing abandoned calls vary in color or intensity depending on how the number of abandons compares to the upper and lower thresholds you set for abandons.
- An **answered** VDN call is an ACD call answered by a measured agent. A VDN **connected** call is any other call answered outside the ACD like an attendant (a non-ACD call).

Prerequisite System Administration

ACD 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 9, “ACD Administration — VDN Call Profile Setup”). If you do not define your service level and increments, zero (0) will be used for all increments (therefore, all calls will appear in the first increment).



CAUTION:

If you change the service level increments after initially defined, data will be distorted for the interval in which you made the change. 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 CMS tries to combine the VDN call profile data gathered both before and after the change into a single daily record of split call profile data. As a result, some data is 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 Graph report will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 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 log in 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.

VDN Call Profile Graph Input Window

From this window, you will set the parameters for the VDN Call Profile Graph report. You must fill out this window to run the report. Field descriptions follow the window.

03/13/92 08:30 AM Call Management System Windows: 1 of 1

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

VDN: _____	Run Set dest
Date: _____	
Maximum number of calls ans/conn: _____	
First calls abandoned threshold: _____	
Second calls abandoned threshold: _____	

Figure 5-59. VDN Call Profile Graph Daily Input Window Example

Field Descriptions

VDN:

Enter the name or number of the VDN that you want to view in this graph.

Date: (for Daily, Weekly, and 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, 5/21/91).

⇒ NOTE:

When you specify a date for a weekly report, that date must correspond to the "week start day" selected in the Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (3/12/90). If the date and day do not match, the message No records found displays in the status line.

-
- You can also use a “-” offset based on today’s date (for example, -0 for today).

Maximum number of calls ans/conn:

Enter the maximum number of calls that you anticipate will be answered as ACD calls and connected as non-ACD calls within any single service level increment with the report’s timeframe.

- This number appears on the vertical axis of the bar graph under Ans/Conn.
- The bars in the graph will equal this number when they are at maximum height.

First calls abandoned threshold:

Enter a number of abandoned calls that will 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 will change color/intensity when the first threshold is met or exceeded.

Second calls abandoned threshold:

Enter a number of abandoned calls that will 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 will change color/intensity when the second threshold is met or exceeded.

VDN Call Profile Graph Report

A description of each report item follows the report example in the VDN Call Profile Graph Report Description table.

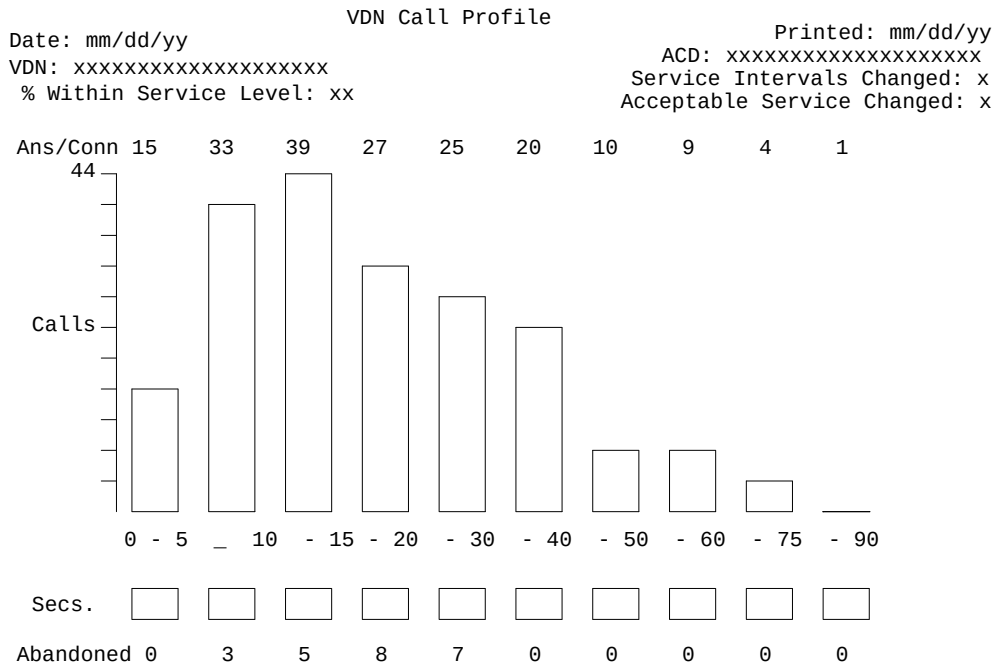


Figure 5-60. VDN Call Profile Report Example

Table 5-26. VDN Call Profile Graph Report Description



NOTE:

All database items and calculations apply to the *dvdn* table for daily reports, *wvdn* for weekly reports, and *mvdn* for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date, Week starting, Month starting	The day, week, or month for which the report shows data (selected in the Report Input window).	ROW_DATE
VDN	The number or name of the VDN for which the report shows data (selected in the Report Input window).	VDN
% Within Service Level	The percentage of incoming calls on the ACD that were answered by a measured agent or connected to a non-ACD destination within the service level (as specified in the VDN Call Profile Setup window).	100*(sum(ACCEPTABLE)/sum(INCALLS)) <PERCENT_SERV_LVL_VDN>
Printed	The day and time CMS printed or displayed the report.	No database item or calculation.
ACD	The ACD that contains the associated VDN in the report.	ACD
Service Intervals Changed	The indication yes/no as to whether the call profile increments (in the VDN Call Profile Setup window) were changed within the time frame of the report	PERIODCHG

Table 5-26. VDN Call Profile Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Acceptable Service Changed	The indication yes/no as to whether the acceptable service level (in the VDN Call Profile Setup window) was changed within the time frame of the report.	SVCLEVELCHG
Ans/Conn	The number of calls that, while connected to this VDN, were answered by an agent or were connected (to a non-ACD destination) within each of the service level increments. With Generic 2.2 and Generic 3, <i>connected</i> means calls that are answered at a non-ACD destination. With Generic 2.1 and System 85, <i>connected</i> means calls ringing at a non-ACD destination.	sum(ANSCONNCALLS1), sum(ANSCONNCALLS2), — sum(ANSCONNCALLS10)
Secs.	The lower and upper limit in seconds of each service level increment (as defined in the ACD Administration: VDN Call Profile Setup window). These increments represent progressively longer wait time segments in which calls may be answered or abandoned.	PERIOD1, PERIOD2, — PERIOD9
Abandoned	The number of incoming calls on the ACD that, while connected to this VDN, were abandoned within each of the service level increments. Calls in each increment are represented by numbers. Bars do not change in height, but change color when an upper or lower threshold is reached. With Generic 2.2 and Generic 3 switches, this is all VDN calls abandoned. With Generic 2.1 and System 85, this is ACD calls abandoned.	sum(ABNCALLS1), sum(ABNCALLS2), — sum(ABNCALLS10)

VDN Service Level Graph

The VDN Service Level 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 will change to the caution color, and then to the warning color.

Things to Know About This Report

- If you have not purchased the CMS Vectoring feature and Graphics package, you will not see this menu item.
- Percentages are represented only as bars on a graph. Actual numbers do not appear.
- When you change the length of the service level, CMS will delete any Call Profile data already collected for the current intrahour interval. Consequently, the Interval VDN Service Level report may show incorrect data for the intrahour interval in which you made the change.

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 9, “ACD Administration — VDN Call Profile Setup,” for more information.

If you are using names for split, the names must first be entered in the Dictionary subsystem. See Chapter 7, “Dictionary,” for more information.

VDN Service Level Input Window

From this window, you will set the parameters for the VDN Service Level Graph report. You must fill out this window to run the report. Field descriptions follow the window.

03/20/92 08:30 AM Call Management System Windows: 1 of 1

Rpts: Hist: Graph: VDN Service Level: Interval Input ACD1

VDN: _____ Run
Date: _____ Set dest
Times: _____
Second Service Level Percentage Threshold: ____
First Service Level Percentage Threshold ____

Destination is printer1

Figure 5-61. VDN Service Level Interval Input Window Example

Field Descriptions

VDN:

Enter the name or number of the VDN you want to include in the report.

Date: (for Interval) or Dates: (for Daily)

Enter the date(s) you would like the report to cover.

- You can use the month/day/year (for example, 5/21/91).
- You can also use a "-" offset based on today's date (for example, -0 for today).

Times: (Interval only)

Enter the start time(s) of the interval(s) you would like the report to cover

- You can use a.m./p.m. format (for example, 7:30AM-5:00PM).
- You can also use military time format (for example, 07:30-1700).

Second Service Level Percentage Threshold:

Enter a service level percentage that will separate the Normal condition from the Caution condition. This bar is actually the caution condition bar.

- This number must be greater than the number entered in the First Service Level Percentage Threshold field.
- Because the bars in this report work in reverse, the caution condition bar(s) will be lower than the normal condition bar(s) and higher than the warning condition bar(s). Any percentage that meets or falls below the value entered in this field will indicate a caution condition.

First Service Level Percentage Threshold:

Enter the service level percentage that will separate the Caution condition from the Warning condition. This bar is actually the warning condition bar.

- 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) will be lower than the caution condition bar(s). Any percentage that meets or falls below the value entered in this field will indicate a warning condition.

VDN Service Level Graph Report

A description of each report item follows the report example in the VDN Service Level Report Description table.

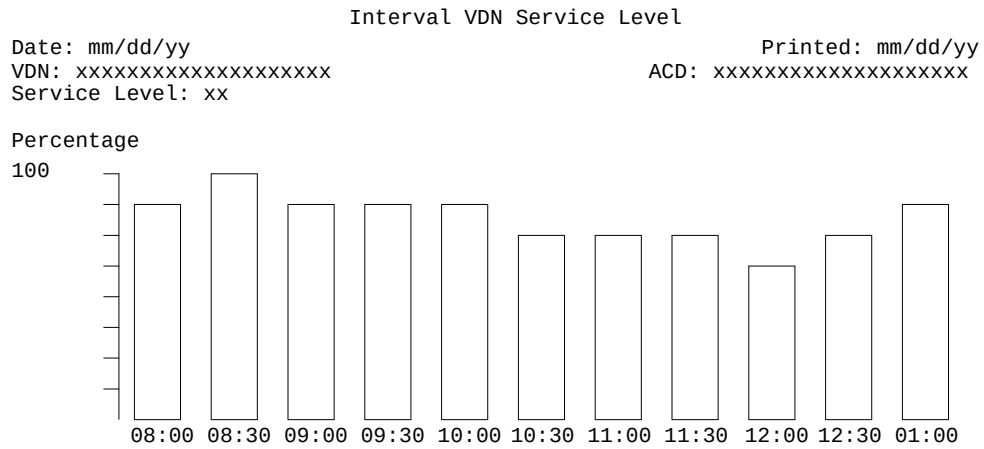


Figure 5-62. VDN Service Level Report Example

Table 5-27. VDN Service Level Report Description



NOTE:

All database items and calculations apply to the *hvdn* and *dvdn* tables.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	For Interval reports only, the day for which the report shows data (selected in the Report Input window).	ROW_DATE
VDN	The number or name of the VDN for which the report shows data (selected in the Report Input window).	VDN
Printed	The day and time CMS printed or displayed the report.	No database item or calculation.
ACD	The ACD sending calls to the VDN. This ACD is always the current ACD.	ACD
Percentage (Within Service Level)	The percentage of incoming calls on the ACD that were answered by a measured agent or connected to a non-ACD destination within the service level (as specified in the VDN Call Profile Setup window). Data is for each specified intrahour interval (or day) specified on the Report Input window.	$100 * (\text{sum}(\text{ACCEPTABLE}) / \text{sum}(\text{INCALLS}))$ <PERCENT_SERV_LEVL_VDN>
Secs	Each “Secs” (seconds) interval represents a progressively longer wait time for both answered and abandoned calls in queue. Each service level increment can be a different length (defined in the “ACD Administration — VDN Call Profile” window).	PERIOD1-9
Times	For intrahour reports only, the intrahour intervals for which Percent Within Service Level is measured.	STARTTIME
Dates	For daily reports only, the dates for which Percent Within Service Level is measured.	ROW_DATE

Call Work Code Report

Purpose

You would use this 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.

Things to Know About This Report

- 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 switches.
- The Call Work Code report is available in daily, weekly, and monthly versions.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- If you are using names for call work codes, the names must first be defined and entered in the Dictionary subsystem. See Chapter 7, “Dictionary — Call Work Codes,” for more information.
- 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 CMS in the System Setup subsystem Data Storage Allocation window. See Chapter 11, “System Setup — Data Storage Allocation,” for more information.
- You must identify and specify where you want to store call work code data in the Free Space Allocation window in the System Setup subsystem. See Chapter 11, “System Setup — Free Space Allocation,” for more information.
- You must assign which call work codes will collect a particular call activity that your call center wants to track in the Call Work Codes window in the ACD Administration subsystem. See Chapter 9, “ACD Administration — Call Work Codes,” for more information.

Call Work Code Input Window

You must fill out this window to run the Call Work Code report. Field descriptions follow the input window example.

03/13/92 08:30 AM Call Management System Windows: 1 of 1

Rpts: Hist: Call Work Code: Daily Input acd1

Call Work Code(s): _____ Run Set dest

Date: _____

Figure 5-63. Call Work Code Daily Input Window Example

Field Descriptions

Call work code(s):

Enter the call work code name(s) or number(s).

Dates: (for Daily, Weekly, and Monthly)

Enter the date(s) you would like the report to cover.

- You can also use a "-" offset based on today's date (for example, -0 for today).
- You can separate individual data entry items using a semicolon (for example, 3/21/92;3/23/92;3/25/92), and you can enter ranges by placing a hyphen between entries (for example, 3/21/92-3/25/92).
- You can use the month/day/year (for example, 3/21/92).

⇒ NOTE:

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 Storage Intervals window in the System Setup subsystem. For example, if you specify the week to begin on "Tuesday," you must enter a date that falls on a Tuesday (4/7/92). 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.

Call Work Code Report Example

A description of each report item follows the report example in the Call Work Code Report Description.

```

Weekly Call Work Code Report

Week starting:mm/dd/yy                                Print mm/dd/yy hh:mm AM
                                                         ACD: xxxxxxxxxxxxxxxxx

Call Work Code    Call Work Code Name    ACD    Total    Total    Avg    Avg
Calls    Talk    After    Talk    After
Time    Call    Time    Call

-----
Totals:                xxxxx hh:mm:ss  hh:mm:ss  hh:mm:ss hh:mm:ss
-----
xxxxxxxxxxxxxxxxxx  xxxxxxxxxxxxxxxxxxxxxxx  xxxx hh:mm:ss  hh:mm:ss  hh:mm:ss hh:mm:ss
xxxxxxxxxxxxxxxxxx  xxxxxxxxxxxxxxxxxxxxxxx  xxxx hh:mm:ss  hh:mm:ss  hh:mm:ss hh:mm:ss
xxxxxxxxxxxxxxxxxx  xxxxxxxxxxxxxxxxxxxxxxx  xxxx hh:mm:ss  hh:mm:ss  hh:mm:ss hh:mm:ss
xxxxxxxxxxxxxxxxxx  xxxxxxxxxxxxxxxxxxxxxxx  xxxx hh:mm:ss  hh:mm:ss  hh:mm:ss hh:mm:ss

```

Figure 5-64. Call Work Code Report Example

Table 5-28. Call Work Code Report Description



NOTE:

Database items and calculations apply to the *dcwc* table for daily reports, the *wcwc* table for weekly reports, and the *mcwc* table for monthly reports.

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Date	The day that the report shows data (selected in the Report Input window).	ROW_DATE
Printed	Date and time the report was sent to the printer.	No database item or calculation.
ACD	The ACD name or number associated with the call work code(s).	SYN(ACD)
Call Work Code	The call work code number.	CWC
Call Work Code Name	Name associated with the call work code number.	SYN(CWC)
ACD Calls	The number of inbound ACD and direct agent calls with the call work code.	ACDCALLS

Table 5-28. Call Work Code Report Description (Contd)

Report Heading	What It Measures	Database Item, Calculation, or <Calculation Name>
Total Talk Time	The total talk time associated with the call work code.	ACDTIME
Total After Call	The total after call work time associated with the call work code.	ACWTIME
Avg Talk Time	The average talk time associated with the call work code.	ACDTIME/ACDCALLS <AVG_ACD_TALK_TIME>
Avg After Call	The average after call work time associated with the call work code.	ACWTIME/ACDCALLS <AVG_ACW_TIME>

VDN Reports

⇒ NOTE:

If you have not purchased the CMS Vectoring feature, you will not see any of the VDN menu items.

The VDN Reports (Figure 5-64) 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.



Timetables and Shortcuts

6

General Information

From the **Keep** SLK menu (Figure 6-1), you will create, modify, view, and delete timetables and shortcuts. A **timetable** is an activity or group of activities (like reports) scheduled for completion at a time that is convenient and nondisruptive for your call center's operation. 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.

When you create or edit a timetable or shortcut, you enter the **Keep** mode (Keep appears on the title bar until you leave this mode). This mode indicates that you can edit and save your timetable and shortcut tasks .

A **task** is a combination of inputs on a user window (like a report input window) and the completed action list selection (Add, Modify, Delete, Run, Set dest, or List all) which, when executed, performs an operation (for example, filling in a report input window, and then running the report).

When you leave the Keep mode, you return to the *Normal* mode and Keep disappears from the title bar.

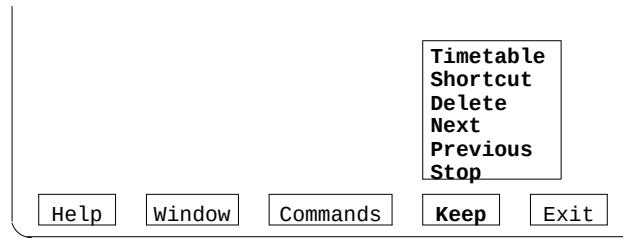


Figure 6-1. Keep SLK Menu

Keep Menu-Item Description

Timetable	Takes you to the user window where you will create, modify, view, or delete timetables. See the Timetable section later in this chapter.
Shortcut	Takes you to the user window where you will create, modify, view, or delete shortcuts. See the Shortcut section later in this chapter.
Delete	Deletes the task currently displayed. Tasks are displayed by selecting <code>Get contents</code> from the Timetable or Shortcut action list. — <code>Get contents</code> allows you to add, modify, delete, and view the tasks for a timetable or shortcut.
Next	Displays the next task on the timetable or shortcut. Used only with <code>Get contents</code> on the action list.
Previous	Displays the previous task on the timetable or shortcut. Used only with <code>Get contents</code> on the action list.
Stop	Takes you out of the add or edit mode for a timetable or shortcut at which time an Acknowledgement appears asking you if you want the additions or changes saved.



NOTE:

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

Timetable

Purpose

Timetable gives you the option of scheduling one or more tasks for completion at a time that is convenient and nondisruptive to your call-center's operation.

Things to Know Before You Start

- Timetable runs in the background (not on your terminal — output is usually print requests or UNIX system files).
- Data summaries are already scheduled to run on a timetable when you receive your system. You cannot access or change these timetables.
- A full backup and incremental backup have been created on a timetable for you, but neither has been scheduled. You will have to schedule an incremental and full backup to run.
- Timetables that fail to run will be logged to the customer error log. The `List all` action item on the Timetable window displays successful timetables.
- Each timetable can have up to 100 tasks (entries) that can be scheduled.
- You can only schedule five timetables for the same start time (minute).



CAUTION:

*If the switch clock or UNIX 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 will start running immediately. If **all** timetables start running at the same time, your CMS will be extremely slow till all timetables finish running. See “Timetables and the Switch Clock” section later in this chapter for more information and procedures.*

- You cannot put real-time reports, custom real-time reports, the Vector Contents window (if you have the Vectoring feature), custom report creation, the real-time exceptions log, or any window that requires CMS be in the single-user mode on a timetable.

Also, you cannot place a timetable on another timetable.

-
- If you are putting agent group reports on a timetable, make sure you enter the group name correctly. 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 request will run, but will not contain data because the group does not exist. You will have to delete this task on the timetable and then reenter it again with the correct group name.
 - You cannot change the ACD (real or pseudo) 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. If you want the same window for a different ACD, you must delete the original window and add a new one with a different ACD.

To change the ACD, exit the Timetable/Shortcut edit mode, change the ACD using the **Commands** SLK, and then reenter the Timetable/Shortcut edit mode. See Chapter 2, "User Basics," for the procedures on changing your current ACD.

- When you select Timetable, you are automatically placed in the *Keep* mode when an **Add** or **Get contents** action list selection is made. This means that you will not be able to access windows that existed before you entered the *Keep* mode. The pre-*Keep* windows will reappear in their same location after you exit the *Keep* mode.
- A task (which is created before you enter the *Keep* mode) is stored with each **Add**, **Delete**, **Modify**, **Run**, **Set dest**, and **List all** action list selection. Action list selections not saved by CMS are **Find one**, **Next**, **Previous**, and **Get contents**. With **Find one**, **Next**, **Previous**, and **Get contents**, the action happens immediately.
- *Normal* (not administrators) users cannot add, modify, or delete another user's timetables or entries, but normal users can view other users' timetables.
- You cannot select the terminal as a **Set dest** destination for a timetable.
- You cannot move or size windows in the timetable edit mode.

-
- CMS will make every attempt to run each task on a timetable. If an event (such as an Acknowledge window that requires a yes or not response) occurs, then the timetable run is stopped. Tasks in a timetable for which you do not have permission will fail, but the other tasks are completed.



NOTE:

Check the `List all` window on the timetable and the Error Log Report in the Maintenance subsystem to verify the status of a timetable.

- The `Current` key in the *Keep* mode only rotates through your timetable windows; it will **not** rotate through any windows opened before you entered the *Keep* mode.
- All `Run` and `List all` action list selections in the timetable mode are sent to your default CMS printer. If you don't set the printer or file destinations in your timetable task, just reset your CMS default printer.



NOTE:

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

- To print a report multiple times on a timetable, you must enter the task(s) each time on the timetable (e.g., if you want three copies of the Split report, enter the tasks three different times).
- The timetable printout automatically goes to your default printer unless you change the printer destination. If you give a timetable a printer destination other than your default printer and that printer is removed, your timetable will not run and you will have to remove that printer destination from the timetable and then reenter a new printer destination.

If your default printer is changed, CMS will send your timetables to your new default printer automatically. You do not have to change the timetable.

Prerequisite System Administration

- Your CMS user ID must be entered into CMS. See Chapter 10, User Permissions — User Data.
- To create, modify, or delete timetables, you need **write** permission for Timetable. See Chapter 10, “User Permissions — Feature Access,” for more information.
- To view timetables, you need **read** permission for Timetable. See Chapter 10, “User Permissions — Feature Access,” for more information.

Relationships to Other Subsystems

User Permissions

If you delete a CMS user ID (from the User Permissions — User Data window) that has timetables, you will be asked if you want to save and rename the timetables owned by the deleted user in your user ID's directory.

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 Splits 1, 2, 3, and 4, and you change the user's permissions to Splits 1, 2, and 4, all timetables that user has scheduled for Split 3 will not run (or will display no data for Split 3).

Timetable Input Window

From this window, you will 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.

03/20/92 08:30 AM Call Management System Keep Windows: 1 of 1

Timetable

Timetable name: _____

Description: _____

User ID: _____

Start time: _____

Start date: _____

Frequency and attributes (Select one):

<x> Once

< > Hourly, Stop time: 11:59 PM

< > Dates: _____

< > Daily, Days (Select any you wish):

☒ Sunday ☒ Friday

☒ Monday ☒ Thursday

☒ Tuesday ☒ Saturday

☒ Wednesday

Add
Copy
Delete
Find one
Get contents
List all
Modify
Next
Previous

Figure 6-2. Timetable Input Window

Error Messages

Failed

If you are creating or editing a timetable and receive this message, first do a `Get contents` and make sure your timetable was saved. If it was, simply reschedule the timetable. If it was not saved, call AT&T ACD/CMS Help on 1-800-344-9670.

⇒ NOTE:

Always check the Error Log report (Maintenance subsystem) before calling the ACD/CMS Helpline. It's possible you can correct the error.

Field Descriptions

Timetable name: (Required for Add)

Enter a unique name for the timetable. The timetable name may 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.

Description: (Optional field)

Enter a description of the timetable. The description may be up to 50 characters.

User ID: (Required for Add)

Enter your CMS user ID.

Start time: (Required to schedule)

Enter the time you want this timetable to begin running.

- You can use a.m./p.m. format (for example, 2:30AM). If a.m. or p.m. is not specified, then military time (24-hour clock) is assumed.
- You can also enter a time as “hh” (2AM) or “hh:mm” (2:30AM).

⇒ NOTE:

If the time entered is in the past and the start date is today, the timetable will not be scheduled.

Start date: (Required to schedule)

Enter the day (for example, 7/7/91) you want the timetable to start running.

- You can use the month/day/year format (7/7/91).
- You can also use a “+” or “-” offset based on today’s day (-0 for today).

⇒ NOTE:

You will get an error message if you enter an invalid date like 2/30 (February 30). Also, if your start date is in the past, the timetable will not be scheduled.

Frequency and attributes (Select one):
(Required for Add)

< > Once

The timetable will run only one time, at the date and time you specified.

< > Hourly, Stop time:

If you want this timetable to run hourly, enter a stop time (for example, 10:59 PM).

⇒ NOTE:

The time entered in the Hourly, Stop time field should be greater than the start time for the timetable to be scheduled.

Dates:

These fields are for monthly and quarterly timetables or any specific date.

For monthly timetables, enter the specific day each month you want this timetable to run (for example, 1/1/91, 2/1/91, 3/1/91, 4/1/91 in each individual row and field).

For quarterly timetables, enter the specific day every 3 months you want this timetable to run (for example, 1/1/91, 4/1/91, 7/1/91, 10/1/91 in each individual row and field).

⇒ NOTE:

You will get an error message if you enter an invalid date like 2/30.

< > 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.

For weekly timetables, 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, press Stop on the **Keep** SLK. When the Acknowledgement appears and asks you if you want to save your changes, answer no.

- 1 Select **Timetable** from the **Keep** SLK menu by typing “t” and pressing **Return**. → *The Timetable input window appears. (All other windows are temporarily closed.)*
- 2 Enter a *unique* name in the **Timetable name:** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.
- 3 Enter a description for the timetable in the **Description:** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.
- 4 Enter your user ID in the **User ID** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.
- 5 Enter the time you want your timetable to start running in the **Start time:** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.



NOTE:

If you want to run a timetable immediately, set the start time to a few minutes in the future (e.g., 2 minutes from now).

-
- 6 Enter the date you want your timetable to start running in the **Start date:** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.
 - 7 Enter an **x** next to how often you want your timetable to run (Frequency).
 - a. If you select **Once**, your timetable will run only one time.
 - b. If you select **Hourly, Stop time:**, enter the time you want the timetable to stop running.
 - c. If you select **Dates:**, enter the specific dates.
 - d. 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**, then press **A** to move your cursor to **Add** on the action list, and press **Return** again to add your timetable to CMS.



NOTE:

Only five timetables can be scheduled for the same start time.

→ *Add is highlighted, and Working appears on the status line.*

If the timetable name already exists, Already exists appears on the status line and you will have to enter another timetable name.

If all entries are valid, Successful appears on the timetable window status line, Keep appears on the CMS title bar (indicating you are in the Keep mode), and the CMS Main Menu appears.

-
- 9 From the CMS 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.*
 - 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 and action list selections for each task you want to schedule on this timetable.

⇒ NOTE:

You can reuse an open window on the screen by using the Current SLK to select the window and make it current, then reenter the data, and make an action list selection. For example, if you've selected the historical Split Summary Interval report and want reports for splits 1 through 9 with the same date and times, select from the main menu the appropriate window. Then enter 1 for the split number, 0 for the date, 8:00-16:00 for times. Select the action list Run, and one task is stored. Now change split 1 to 2 and select Run, and task two has been created. Continue these steps for splits 3 through 9. You have now created nine timetable tasks and have only used the main menu once.

-
12 When you have finished adding tasks to this timetable, press the Keep SLK and select Stop from the menu.	→ <i>An Acknowledgement appears.</i>
13 Answer yes to save your timetable.	→ <i>Your tasks are now scheduled on a timetable. All user windows are closed, and you are returned to the timetable window.</i>
14 Press the Exit SLK to close the timetable window and return to your previously opened window.	→ <i>Keep disappears from the title bar, and your previous normal user windows appear.</i>

Adding a Task to an Existing Timetable

⇒ NOTE:

To get out of timetable at any time without saving any changes, press Stop on the **Keep** SLK. When the Acknowledgement appears and asks you if you want to save your changes, answer no.

- 1 Select **Timetable** from the **Keep** SLK menu by typing "t" and pressing **Return**. → *The Timetable input window appears.*
- 2 Enter the timetable name to which you want to add a task in the **Timetable name:** field.
- 3 Press **Return**, then press **G** to move your cursor to Get contents on the action list, and then press **Return** again. → *A second window appears that displays the first task associated with this timetable. You are now in the Keep mode, and Keep appears on the title bar.*
The timetable must already exist and only the owner of the timetable can edit it.
- 4 If this is not the task where you want to add a new task, press the **Keep** SLK, and then select **Next** or **Previous** from the menu to move between the tasks you have scheduled on this timetable. If you are at the beginning and select **Previous**, you go to the last task on this timetable. If you are at the end of the tasks on this timetable, **Next** takes you to the first task. → *Tasks are displayed in the order in which they were created. You can use the **Exit** SLK to close the open windows.*



NOTE:

Tasks are numbered 1 of N where 1 is the position in the list, and N is the total number of tasks on the timetable.

-
- 5 When you are at the desired place in the timetable, you can add tasks by:
- Entering data in the window displayed and making an action list selection; or
 - Pressing the **Exit** SLK and then pressing the **MainMenu** SLK; or
 - Pressing the **MainMenu** SLK and making menu selections, entering data, making an action list selection.

→ When you create a new task, it is added after the task previously displayed.

If you select the **Exit** SLK or Next/Previous on the **Keep** SLK and you have not selected an action list entry, the task will **not** be saved.



NOTE:

You can **move** a task by first doing an **Add** to put the task in the desired place and then doing a **Delete** to delete the task from the undesirable place. Use **Next/Previous** to first position yourself.

- 6 When you have finished adding tasks to this timetable, press the **Keep** SLK and select **Stop** from the menu.

→ An Acknowledgement appears.

- 7 Answer **yes** to save your timetable changes.

→ Your new tasks have been added to this timetable.

All user windows are closed, and you are returned to the timetable window.

- 8 Press **Exit** to close the timetable window and return to your previously opened window.

→ Keep disappears from the title bar, and your previous normal user windows appear.

Deleting a Task From an Existing Timetable

⇒ NOTE:

To get out of timetable at any time without saving any changes, press Stop on the **Keep** SLK. When the Acknowledgement appears and asks you if you want to save your changes, answer no.

- 1 Select **Timetable** from the **Keep** SLK → *The Timetable input window appears.*
menu by typing “t” and pressing **Return**.
- 2 Enter a timetable name you want to delete a task from in the **Timetable name:** field.
- 3 Press **Return**, then press **G** to move your cursor to Get contents on the action list, and then press **Return**. → *A second window appears that displays the first task associated with this timetable. You are now in the Keep mode, and Keep appears on the title bar.*
The timetable must already exist and only the owner of the timetable can edit it.
- 4 To get to the task you want to delete, press the **Keep** SLK, and then select from the **Keep** menu Next or Previous to move between the tasks you have scheduled on this timetable. → *Tasks are displayed in the order they were created. You can use the **Exit** SLK to close the open windows.*

-
5	When you are at the desired task in the timetable, press the Keep SLK and select Delete from the menu.	→	<i>The next task will become the current task. If you delete the last task, No more data displays on the status line. If you delete all of the previous window's tasks in the timetable, the CMS main menu appears.</i>
6	When you have finished deleting tasks on this timetable, press the Keep SLK and select Stop from the menu.	→	<i>An Acknowledgement appears.</i>
7	Answer yes to delete your timetable tasks.	→	<i>Your tasks have been deleted from this timetable. All user windows are closed, and you are returned to the timetable window.</i>
8	Press Exit to close the timetable window and return to your previously opened window.	→	<i>Keep disappears from the title bar.</i>

Modifying a Task on a Timetable

You cannot modify a task on a timetable. You must delete the task and then reenter the new task.

However, you can re-enter data in a task window and make your action list selection. This will make a new task. Select **Previous** from the **Keep** SLK (you are now at the old task). Select **Delete** from the **Keep** SLK and you have essentially done a *modify*.

If you need to modify the date field for all tasks in a timetable, call the AT&T ACD CMS Helpline on 1-800-344-9670 (there may be a charge).

Copying an Existing Timetable

⇒ NOTE:

You can copy timetables from other users, but you cannot copy over an existing timetable. Also, only five timetables can be scheduled for the same start time.

- 1 Select **Timetable** from the **Keep** SLK menu by typing "t" and pressing **Return**. → *The Timetable input window appears.*
- 2 Enter the new timetable name that you want to copy the existing timetable to in the **Timetable name:** field.
- 3 Enter your user ID in the **User ID:** field.
- 4 Press **Return**, then press c to move your cursor to copy on the action list, and press **Return** again. → *The Timetable: Copy window appears.*
- 5 Enter the name of the existing timetable you want to copy in the Copy from: field.
- 6 Enter the user ID of the user whose timetable you want to copy in the User ID: field.
- 7 Press **Return**, then press c to select copy on the action list, and press **Return** again to copy the timetable. → *Successful appears on the status line.*
- 8 Press **Exit** to close the timetable window and return to your previously opened window. → *Your previous normal user window(s) appear.*

Deleting an Existing Timetable

- 1 Select **Timetable** from the SLK menu by typing "t" and pressing . → *The Timetable input window appears.*
- 2 Enter the name of the timetable you want to delete in the **Timetable name:** field.
- 3 Press , then press **D** to move your cursor to **Delete** on the action list, and press again to delete the timetable. → *An Acknowledgement appears indicating that all tasks associated with this timetable will be deleted.*
- 4 Answer **yes** to delete your timetable. → *Your timetable has been deleted.*
- 5 Press to close the timetable window and return to your previously opened window. → *Your previous normal user window(s) appear.*

Creating and Not Scheduling a Timetable

⇒ NOTE:

To get out of timetable at any time without saving any changes, press Stop on the **Keep** SLK. When the Acknowledgement appears and asks you if you want to save your changes, answer no.

- 1 Select **Timetable** from the **Keep** SLK → *The Timetable input window appears.*
menu by typing “t” and pressing **Return**.
- 2 Enter a *unique* name in the **Timetable name:** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.
- 3 Enter a description for the timetable in the **Description:** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.
- 4 Enter your user ID in the **User ID** field. Go to the next field by pressing the down arrow (↓) or the **Tab** key.
- 5 Skip the **Start time:** and **Start date:** fields and go to the next field by pressing the down arrow (↓) or the **Tab** key.

6 Enter an **x** next to how often you want your timetable to run (Frequency).

- a. If you select **Once**, your timetable will run only one time.
- b. If you select **Hourly, Stop time:**, enter the time you want the report to stop running.
- c. If you select **Dates:**, enter quarterly or monthly dates.
- d. 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 , then press **A** to move your cursor to **Add** on the action list, and press again to add your timetable to CMS.

→ *Add is highlighted, and Working appears on the status line.*

If the timetable name already exists, Already exists appears on the status line and you will have to reenter the timetable name.

If all entries are valid, Successful appears on the timetable window status line, Keep appears on the CMS title bar (indicating you are in the Keep mode), and the CMS Main Menu appears.

8 From the CMS Main Menu, go to the task (user window/action list) that you want to schedule.

→ *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.	→ <i>When each action list selection is made and validated, Entries Stored displays on the status line of the current user window.</i>
10 Repeat the user window and action list selections for each task you want to schedule on this timetable.	
11 When you have finished adding tasks to this timetable, press the Keep SLK and select Stop from the menu.	→ <i>An Acknowledgement appears.</i>
12 Answer yes on the Acknowledgement window to save your timetable.	→ <i>Your tasks can now be scheduled on a timetable at your convenience.</i> <i>All user windows are closed, and you are returned to the timetable window.</i>
13 Press the Exit SLK to close the timetable window and return to your previously opened window.	→ <i>Keep disappears from the title bar.</i>

⇒ NOTE:

To schedule this timetable later, enter a time in the **Start time:** field, a date in the **Start date:** field, and select **Modify** on the action list.

Only five timetables can be scheduled for the same start time.

Timetable List All Example

The Timetable List All window shows the status of all timetables. If a timetable is scheduled to run once and it completes successfully, the status will indicate “finished.” If a timetable fails for any reason, the status will indicate “failed.” If the timetable completes successfully, status shows “successful.” Timetables that are not scheduled (they do not have a start time) will indicate “unscheduled.” The status also indicates if a timetable is currently running.

Timetable: List All													
Timetable Name	User ID	Status	Next Run	Start Time	Start Date	Freq.	Stop Time	Days					
XXXXXXXXXXXXXXXX	XXXXXX	XXXXXXXXXX	xx:xx PM	12/12/91	xx:xx PM	12/11/91	Once	11:59 PM	x	x	x	x	x
XXXXXXXXXXXXXXXX	XXXXXX	XXXXXXXXXX	xx:xx PM	12/20/91	xx:xx PM	12/20/91	Daily	11:59 PM	x	x	x	x	x
XXXXXXXXXXXXXXXX	XXXXXX	XXXXXXXXXX	xx:xx AM	12/21/91	xx:xx AM	12/21/91	Weekly	11:59 PM	x	x	x	x	x

Figure 6-3. Timetable List All Example

Timetables and the Switch Clock

If the switch clock or UNIX 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 will start running immediately. If **all** timetables start running at the same time, your CMS system will be extremely slow till 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:

If the time on the switch was purposely set in the future, then you only need to put CMS in single-user mode and then back to multiuser mode.

At the 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 reset the switch clock:

1. Put CMS in the single-user mode (Maintenance — CMS State). This stops the timetables from running.
2. Set the switch clock to the correct time.
3. Go to the UNIX system and entering the following commands to turn off CMS.

For a 6386 computer, enter:

```
# cmsadm
```

For a 3B computer, enter:

```
# sysadm cms_mgmt
```

For both computers, the program responds with:

```
CALL MANAGEMENT SYSTEM ADMINISTRATION

1 add_agent      Add additional agents to CMS
2 pkg_display    Displays installed feature packages
3 pkg_install     Install a feature package
4 pkg_remove     Remove a feature package
5 run_cms        Turn CMS On or Off
6 setup          Setup the initial CMS configuration
7 swsetup        Change switch information
8 update_mgmt    Commands for managing software updates

Enter a number, a name, the initial part of a name, or
? or <number>? for HELP, q to QUIT:
```

4. Enter 5. 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 CMS off.

6. Now enter 1 to turn CMS back on.

The program responds with:

```
Checking the System Tunables for correct CMS values.

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

The program responds with:

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

```
Press the RETURN key to see the cms_mgmt menu [?, q]:
```

7. Enter `q` to return to the system prompt.
8. Log back into CMS and put CMS in the multiuser mode.

Shortcuts

Purpose

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 Real-Time Split Status report for splits 2 and 3, you can create and name a shortcut that will display your reports automatically without going through all the ordinary keystrokes to see the reports.

Things to Know Before You Start

- Each CMS 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 create more open windows on the shortcut than what is administered as your maximum window count.
- When you select Shortcut, you are automatically placed in the *Keep* mode when an `Add` or `Get` contents action list selection is made. This means that you will not be able to 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 CMS are Set dest, Next, Previous, and Get contents.

You cannot use Set dest when creating a shortcut because Shortcuts were meant for the terminal screen.

- Each shortcut can have up to 100 tasks.



NOTE:

To have a shortcut with 100 tasks, you must reuse a window that does not have the Run action list item.

- You cannot create a custom report using shortcut.
- If you have the Vectoring feature, you cannot put the Vector Contents screen on a shortcut.
- If you want to put an agent group report on a shortcut, make sure you enter the group name correctly. 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 request will run, but will not contain data because the group does not exist. You will have to delete this task on the shortcut and then reenter it again with the correct group name.

-
- The **Current** key in the *Keep* mode only rotates through your shortcut windows; it will **not** rotate through any windows opened before you entered the *Keep* mode.
 - 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 each other.
 - Error messages or Acknowledge windows will stop a shortcut at the task where the error message or acknowledgement appeared. Correct the problem and rerun the shortcut. For example, lack of permission for a split will cause a shortcut to stop when the shortcut reaches that split.
 - 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 CMS user ID to any one that will be using shortcut. See Chapter 10, "User Permissions — User Data," for more information.

Relationships to Other Parts of CMS

User Permissions

If you delete a 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 Splits 1, 2, 3, and 4 and you change the user's permissions to Splits 1, 2, and 4, all shortcuts for Split 3 will not run or display data for Split 3.

Shortcut Input Window

From this window, you will create, modify, delete, or view your shortcuts.

The screenshot shows a window titled "Call Management System" with a status bar at the top displaying "01/30/92 08:30 AM" and "Windows: 1 of 1". The main content area is titled "Shortcut" and contains a form with three input fields: "Shortcut name:", "Description:", and "User ID:". To the right of these fields is a vertical list of actions: "Add", "Copy", "Delete", "Find one", "Get contents", "List all", "Modify", "Next", and "Previous".

Shortcut	
Shortcut name: _____	Add
Description: _____	Copy
_____	Delete
User ID: _____	Find one
	Get contents
	List all
	Modify
	Next
	Previous

Figure 6-4. Shortcut Input Window Example

Field/Action List Interactions

Copy

Allows you to copy any other user's shortcut or your own shortcut.

Get contents

Displays the tasks currently on a shortcut. You will also be able to add or delete tasks from the shortcut using Get contents.

List all

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

Field Descriptions

Shortcut name:

Enter a unique name for the shortcut. The shortcut name may 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 at any time without saving any changes, press **Stop** on the **Keep** SLK. When the Acknowledgement appears and asks you if you want to save your changes, answer no.

- 1 Select **Shortcut** from the **Keep** SLK menu by typing "s" and pressing **Return**. → *The Shortcut input window appears. (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 CMS. → *Add is highlighted, and Working appears on the status line.*



NOTE:

You can stack input windows at one location by selecting **Move** from the **Keep** SLK, and then moving and sizing the output windows so they don't overlap. This allows you to maximize the terminal screen's space. This is a powerful feature of shortcut. It will take only a few key strokes to get ready for the day or change context quickly.

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

If all entries are valid, Successful appears on the shortcut window status line, Keep appears on the CMS title bar (indicating you are in the Keep mode), and the CMS Main Menu appears.

-
- 5 From the CMS 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 don't like the size or location of your shortcut windows, use the size/move selection from the SLK.
- 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 SLK and select **Stop** from the menu. → *An Acknowledgement appears.*
- 10 Answer **yes** to save your shortcut. → *Your tasks are now saved on a shortcut.*
All user windows are closed, and the shortcut window appears with "Successful" in the status line.
- 11 Press the SLK to close the shortcut window and return to your previously opened window. → *Keep disappears from the title bar, and your previous normal user windows appear.*

Adding or Deleting Shortcut Tasks

⇒ NOTE:

To get out of shortcut at any time without saving any changes, press **Stop** on the **Keep** SLK. When the Acknowledgement appears and asks you if you want to save your changes, answer no.

- 1 Select **Shortcut** from the **Keep** SLK menu by typing "s" and pressing **Return**. → *The Shortcut input window appears.*
- 2 Enter the name of the Shortcut you want to modify in the **Shortcut name:** field.
- 3 Press **Return**, then press **G** to move your cursor to Get contents on the action list, and then press **Return** again. → *A second window appears that displays the first task associated with this shortcut. You are now in the Keep mode, and Keep appears on the title bar.*
The shortcut must already exist, and only the owner of the shortcut can edit it.
- 4 If this is not the task you want to add or delete, press the **Keep** SLK and then select **Next** or **Previous** from the menu to move between the tasks you want to view with shortcut. If you are at the beginning and select **Previous**, you go to the last task on this shortcut. If you are at the end of the tasks on this shortcut, **Next** takes you to the first task. → *Tasks are displayed in the order they were created. You can use the **Exit** SLK to close the open windows. This does not delete a task.*



NOTE:

Tasks are number 1 of N where 1 is the position in the list and N is the total number of tasks on the shortcut.

-
- 5 When you are at the desired place in the shortcut, you can **add** tasks by:
- Entering data in the window displayed and making an action list selection; or
 - Pressing the **Exit** SLK and then pressing the **MainMenu** SLK; or
 - Pressing the **MainMenu** SLK and making menu selections, entering data, making an action list selection.

You can **delete** tasks by selecting Delete on the **Keep** SLK.

You can **move** a task by first doing an Add to put the task in the desired place and then doing a Delete to delete the task from the undesirable place.

- 6 When you have finished adding or deleting tasks on this shortcut, press the **Keep** SLK and select **Stop** from the menu.
- 7 Answer **yes** to save your shortcut changes.
- 8 Press **Exit** to close the shortcut window and return to your previously opened window.

→ When you create a new task, it is added after the previously displayed task.

If you select the **Exit** SLK or Next/Previous on the **Keep** SLK and you have not selected an action list entry, the task will **not** be saved and the window will be closed.

→ An Acknowledgement appears.

→ Your new tasks have been saved to this shortcut.

All user windows are closed, and you are returned to the shortcut window.

→ Keep disappears from the title bar, and your previous normal user windows appear.

Modifying a Task on a Shortcut

You cannot modify a task on a shortcut. You must delete the task and then reenter the new task.

However, you can re-enter data in a task window and make your action list selection. This will make a new task. Select Previous from the **Keep** SLK (you are now at the old task). Select Delete from the **Keep** SLK and you have essentially done a *modify*.

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** SLK menu by typing “s” and pressing **Return**. → *The Shortcut input window appears.*
- 2 Enter a new name for the shortcut you want to copy to in the **Shortcut name:** field.
- 3 Enter your ID in the **User ID** field.
The shortcut being copied will be copied to your ID.
- 4 Press **Return**, then press c to move your cursor to copy on the action list, and press **Return** again. → *The Copy window appears.*
- 5 Enter the name of the shortcut you want to copy in the **Shortcut copy from:** field.
- 6 Enter the ID of the user whose shortcut you want to copy in the **User ID:** field.
- 7 Press **Return**, then press c to select 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.	→ <i>Your previous shortcut window appear.</i>
9 Press Exit to close the shortcut window and return to your previously opened window.	→ <i>Your previous normal user window(s) appear.</i>

Deleting an Existing Shortcut

1 Select Shortcut from the Keep SLK menu by typing "s" and pressing Return .	→ <i>The Shortcut input window appears.</i>
2 Enter a shortcut name you want to delete in the Shortcut name: field.	
3 Press Return , then press D to move your cursor to De lete on the action list, and press Return again to delete the shortcut.	→ <i>An Acknowledgement appears indicating that all tasks associated with this shortcut will be deleted.</i>
4 Answer yes to delete your shortcut.	→ <i>Your shortcut has been deleted.</i>
5 Press Exit to close the shortcut window and return to your previously opened window.	→ <i>Your previous normal user window(s) appear.</i>

Running a Shortcut

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.*

⇒ NOTE:

You must first create the shortcut before you can run the shortcut.



Dictionary

7

General Information

From the Dictionary subsystem (Figure 7-1), you can:

- Enter CMS login IDs and corresponding agent names.
- Assign names to splits, trunk groups, call work codes, ACDs, VDNs, and vectors.
- Create agent groups.
- Modify agent, split, and trunk string values.
- View standard 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.

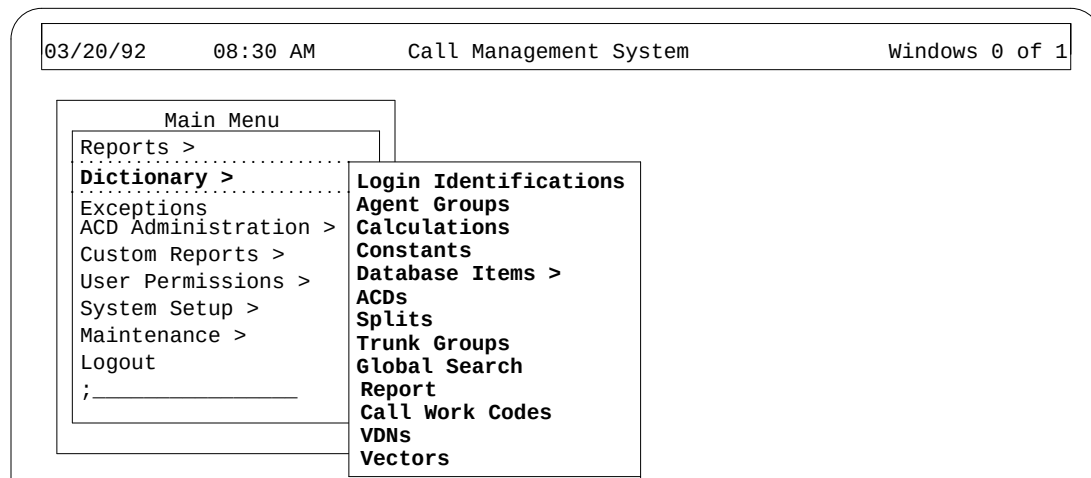


Figure 7-1. Dictionary Menu



NOTE:

If you have not purchased the Vectoring feature, the **VDNs** and **Vectors** items will not appear on your menu.

Dictionary-Specific Rules

- Names (synonyms) must begin with an alphabetic character.
- Dictionary names may be from 1 to 20 characters and won't accept any characters other than alphanumerics, underscore, blank, comma, period, single quote, and plus.
- Descriptions in the Dictionary may be from 1 to 50 characters and accept all typewriter characters except the semicolon (;), backslash (\), left apostrophe ('), 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 1 “sales”, but you cannot name split 1 “sales” and split 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 character that follows the “ac”. You could have several matches, no match, or only one match. If you enter only “*” in the field or leave the field blank, you will get a list of everything.

Login Identifications

Purpose

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 CMS to identify measured ACD agents. At the same time you enter login IDs, you can assign agent names to login IDs. After an agent's name is assigned to a login ID, CMS windows and reports will display that agent's name instead of the login ID number.

Things to Know Before You Start

- Entering agent names in the Dictionary is not required by the ACD or CMS software. However, CMS administration windows and reports are easier to understand if agent names appear instead of login IDs.
- 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 10, “User Permissions” for more information.

Relationships to Other Subsystems

Reports

If you assign names to the login IDs, agent names will appear on reports. If you make any additions or changes to login IDs, the changes will 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 6, "Timetables and Shortcuts" for more information.

Login Identifications Window

To add, modify, delete, or view login IDs, you must complete the Login Identifications window.

03/20/92 08:30 AM		Call Management System	Windows 1 of 1
Dictionary - Login Identifications		acd1	
Login ID: _____	Agent name: _____	Add Delete Find one List all Modify Next Previous	
Status			

Figure 7-2. Login Identifications Window Example

Field/Action List Usage

Find one or List all

If you are doing a Find one or List all and leave the fields blank, you will get all entries (the same as if you entered an *).

List all displays a list of agent names and the corresponding login IDs.

Field Descriptions

Login ID:

Enter the login ID number that you want to view, add, delete, or modify.

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 may be 1- to 9-digit numbers.

Examples:

For Generic 2/System 85: 1234
 1000
 9999

For Generic 1/Generic 3: 1 (1-digit logins)
 423 (3-digit logins)
 1234567 (7-digit logins)
 999999999 (9-digit logins)

Agent name:

Enter the name of the agent that corresponds to the login ID.

⇒ NOTE:

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 (i.e., Jane Brown), CMS will use the J, *not the B for Brown*, to sort alphabetically.

Agent Groups

Purpose

You group agents, without regard to split assignment, to meet your special needs. For example, you could create a group for new employees or employees with special qualifications.

From this window, you will create and name, copy, or delete your group(s). You will also add, delete, or list the agents in your group by selecting **Get Contents** which will bring up a secondary window (see “Get Contents” later in the Agent Groups section).

Things to Know Before You Start

- Creating Agent Groups is an optional administration procedure.
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

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 10, “User Permissions” for more information.

Relationships to Other Subsystems

Reports

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 will 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 6, "Timetables and Shortcuts," for more information.

Agent Groups Window

To add, copy, delete, or view agent groups, you must complete the Agent Groups window.

03/20/9208:30 AMCall Management SystemWindows 1 of 1

Dictionary: Agent Groupsacd1

Agent group name:

AddCopyDeleteFind oneGet contentsList allNextPrevious

Figure 7-3. Agent Groups Window Example

Field/Action List Usage

Agent group name:

The Agent group name: field requires an entry if you are doing an Add, Copy, Delete, or Get contents. If you are doing a Find one or List all and leave the field blank, you will get all entries (the same as if you entered an *).

Add

Creates a new group.

Copy

Creates a new group from an existing group. See "Nonstandard Action List Items and Procedures" later in this section for more information.

Delete

Removes the entire group.

Get contents

Adds members to, deletes members (agents) from, or lists the members of an existing agent group. See "Nonstandard Action List Items and Procedures" later in this section for more information.

Field Description

Agent group name:

Enter the name for the group you want to add, copy, delete, or view. Your group name should be descriptive and accurately reflect your reasons for creating the group.

Nonstandard Action List Items and Procedures

The following action list items and procedures are the only agent group items and procedures that are different from the standard action list items and standard procedures described in Chapter 2, "User Basics."

Copy

Copy (Figure 7-4) allows you to create a new group from an existing group. With Copy, you can rename a group without having to reenter the members of the group a second time. Copy creates a secondary window with a Copy from: field.

⇒ NOTE:

The new group name cannot already exist in the database as an agent group name.

Also, if you are only renaming the group, you should go back and delete the original group you copied from if you no longer need that group. This will save space in the database.

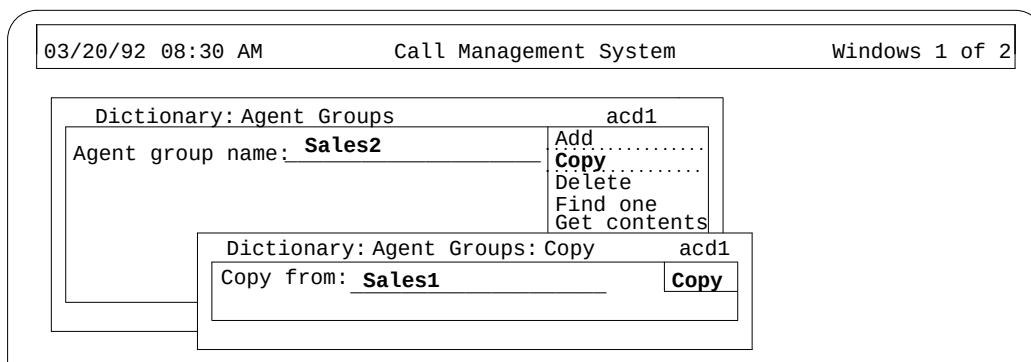


Figure 7-4. Agent Groups — Copy Window

Field Description

Copy from: (Requires an entry.)

Enter the name of the existing *Agent Group* that you want to copy in the Copy from: field.

How to “Copy” Agent Groups

1 Select Agent Groups from the Dictionary menu by typing A and pressing Return .	→ <i>The Agent Groups window appears.</i>
2 Enter the <i>new</i> group name in the Agent group name: field and press Return .	→ <i>Cursor moves to the action list.</i>
3 Press C to select Copy and then press Return .	→ <i>The Agent Groups: Copy window appears.</i>
4 Enter the Agent Group name you want to copy <i>from</i> in the Copy from: field and press Return .	→ <i>Cursor moves to the action list.</i>
5 Press Return .	→ <i>Working appears on the status line until the action completes, then Successful appears to indicate that the information has been copied from the Dictionary database.</i>

Get Contents

Get contents brings up the following secondary window (Figure 7-5) that allows you to add members to, delete members (agents) from, or list the members of an existing agent group.

⇒ **NOTE:**

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

03/20/91 08:30 AM Call Management System Windows 1 of 2

Dictionary: Agent Groups acd1

Agent group name: **Sales**

Add
Copy
Delete
Find one....
Get contents

Dictionary: Agent Groups: Get contents acd1

Login IDs: **2001-2015**

Add
Delete
List all

Figure 7-5. Agent Groups — Get Contents Example

Field/Action List Usage

Login IDs:

The Login IDs: field requires an entry if you are adding or deleting login IDs.

Add

Adds your desired login IDs to the group you selected in the primary window.

Delete

Removes your desired login IDs from the group you selected in the primary window.

Field Description

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.

How to “Add” Agents Using Agent Groups — Get Contents

- 1 Select **Agent Groups** from the Dictionary menu by typing A and pressing **Return**. → *The Agent Groups window appears.*
- 2 Enter the name in the **Agent groups name:** field and press **Return**. → *The cursor moves to the action list.*
- 3 To bring up the **Get contents** window, press **G** and then press **Return**. → *The Agent Groups: Get Contents window appears.*
- 4 Enter the login IDs you want to add for this particular agent group in the **Login IDs:** field, and then press **Return**. → *The cursor moves to the action list.*
- 5 Press **A** to select Add and then press **Return**. → *Working appears on the status line until the add completes, then Successful appears to indicate that the information has been added to the Dictionary database.*

The screenshot shows a terminal window titled 'Call Management System' with a status bar at the top displaying '03/20/92 08:30 AM' and 'Windows 1 of 5'. The main area contains two overlapping windows. The background window is titled 'Dictionary: Agent Groups' and has a field 'Agent group name:' with the value 'Sales'. To its right is a menu titled 'acd1' with options: 'Add', 'Copy', 'Delete', 'Find one.....', and 'Get contents'. The foreground window is titled 'Dictionary: Agent Groups: Get contents' and has a field 'Login IDs:' containing the text '1000;1003;1200-1299;1013;1008;1302;1007;1012'. To its right is another menu titled 'acd1' with options: 'Add.....', 'Delete', and 'List all'.

Figure 7-6. Get Contents — Add Example

How to “Delete” Agents Using Agent Groups — Get Contents

- 1 Select **Agent Groups** from the Dictionary menu by typing A and pressing **Return**. → *The Agent Groups window appears.*
- 2 Enter the name in the **Agent groups name:** field and press **Return**. → *The cursor moves to the action list.*
- 3 To bring up the **Get contents** window, press **G** and then press **Return**. → *The Agent Groups: Get Contents window appears.*
- 4 Enter the login IDs you want to delete for this particular agent group in the **Login IDs:** field, and then press **Return**. → *The cursor moves to the action list.*
- 5 Press **D** to select Delete, and then press **Return**. → *Working appears on the status line until the deletion completes, then Successful appears to indicate that the information has been added to the Dictionary database.*

The screenshot shows a terminal window titled 'Call Management System' with a status bar at the top displaying '03/20/92 08:30 AM' and 'Windows 1 of 5'. The main area contains two overlapping windows. The background window is titled 'Dictionary: Agent Groups' and has a field 'Agent group name:' with the value 'Sales'. To its right is a vertical list of actions: 'acd1', 'Add', 'Copy', 'Delete', 'Find one....', and 'Get contents'. The foreground window is titled 'Dictionary: Agent Groups: Get contents' and has a field 'Login IDs:' with the value '1000;1003;1200-1299'. To its right is another vertical list of actions: 'acd1', 'Add.....', 'Delete...', and 'List all'.

Figure 7-7. Get Contents — Delete Example

How to “List all” Agents in an Agent Group Using Get Contents

- 1 Select **Agent Groups** from the Dictionary menu by typing the A and pressing **Return**. → *The Agent Groups window appears.*
- 2 Enter the group name in the **Agent group name:** field and press **Return**. → *Cursor moves to the action list.*
- 3 Press **G** to select Get contents and press **Return**. → *The Agent Groups: Get Contents window appears.*
- 4 Press **Return** to move the cursor to the action list, and then press **L** to select List all and press **Return** again. → *Working appears on the status line until the action completes. Successful appears on the List all window status line.*

The screenshot displays a multi-tiered menu system within a window titled 'Call Management System'. The top status bar shows the date '02/10/93', time '08:30 AM', and 'Windows 1 of 5'. The first menu, 'Dictionary: Agent Groups', has 'Agent group name: Sales' entered and a list of actions including 'Add', 'Copy', 'Delete', 'Find one...', and 'Get contents'. The second menu, 'Dictionary: Agent Groups: Get content', shows 'Agent login IDs:' with an empty field and actions 'Add.....' and 'List all'. The third menu, 'Dictionary: Agent Groups: Get contents: List all', displays a table of agent information for the 'Sales' group, with a 'Successful' status line at the bottom.

Login ID	Agent Name
1000	Lee Hansen
1001	Doug Allen
1002	Mary Chavez
1003	Sue Lin
1004	Russ Bean
1005	Kent Davis
1006	Linda Benson
1007	Rick Brown
1008	James Cook

Figure 7-8. Get Contents — List All Window

Calculations

Purpose

Calculation names are abbreviated names for the calculation that is used to create report output. 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

- All CMS calculations appear in Appendix A, “Database Items and Calculations.”
- You cannot delete standard calculations.
- You should identify your own calculations with an all-lower-case letter format to distinguish them from the standard CMS calculations, which have an all-upper-case letter format.
- If you change a standard CMS calculation, standard reports could be adversely affected.
- You cannot embed calculations within calculations to 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 CMS calculations appear later in this chapter and also in the *Call Management System Custom Reports* (585-215-513) document.
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- To view calculations, you must have **read** permission for the Dictionary subsystem.
- To change or create a new calculation, you must have **write** permission for the Dictionary subsystem.
- See Chapter 10, “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

When you create custom reports, you will use the standard CMS calculations or create your own custom calculations.

⇒ NOTE:

If you run a custom report that uses a calculation that is **not** in the Dictionary, you will receive an error message.

Calculations Window

To view standard calculations and add, delete, modify, and view your own calculations, you must fill out the Calculations window.

03/20/92 08:30 AM		Call Management System		Windows 1 of 1	
Dictionary: Calculations				All ACDs	
Calculation name: _____				Add Delete Find one List all Modify Next Previous	
Calculation: _____					
Description: _____					

Figure 7-9. Calculations Window Example

Field/Action List Usage

Delete

You can only delete calculations you create — not standard calculations.

Field Descriptions

Calculation name:

Enter the name of the calculation you want to view, add to the database, modify, or delete.

Calculation:

The formula for the calculation. For example, the formula for the agent calculation “Average ACD Talk Time” is:

ACDTIME/ACDCALLS



NOTE:

Spaces are allowed in calculations.

Calculations can include:

- Database items (for example, ACDCALLS for ACD calls)
- Constants
- Calculation(s) (calculations within calculations up to three)
- The following arithmetic operators:
 - + (Add)
 - (subtract)
 - * (multiply)
 - / (divide)
 - () (do first, as in standard mathematical operations).

Description

Your written description of the calculation. The common rules for Dictionary descriptions apply.

Constants

Purpose

Constants are items with fixed numerical values that you can enter into the database and use in custom reports. Constants do not exist in CMS when it is first installed.

 NOTE:

For a more complete description of Constants, see the *Call Management System Custom Reports* document (585-215-513).

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 10, “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 will receive an error message.

Constants Window

To add, delete, modify, or view your own constants, you must complete this window.

03/20/92 08:30 AM Call Management System		Windows 1 of 1
Dictionary: Constants		All ACDs
Constant name: _____		Add
Value: _____		Delete
Description: _____		Find one
		List all
		Modify
		Next
		Previous

Figure 7-10. Constants Window Example

Field/Action List Usage

List all

Displays the constant name, value, and a description of the constant.

Field Descriptions

Constant name:

Enter the name of the constant you want to view, add, delete, or modify in the database.

The common rules for entering names applies.

Value:

Enter the numerical value of the constant.

The range is -99999 to +999999.

Description:

Enter your description of the constant.

Database Items >

Selections from the Database Items menus (Figure 7-11) contain the names for specific information stored in the CMS database. Database items may store login IDs, extension numbers, split numbers, 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 the following five categories. Descriptions follow for each one.

- Agent String Values
- Split String Values
- Trunk String Values
- Standard CMS Items
- Custom Items.

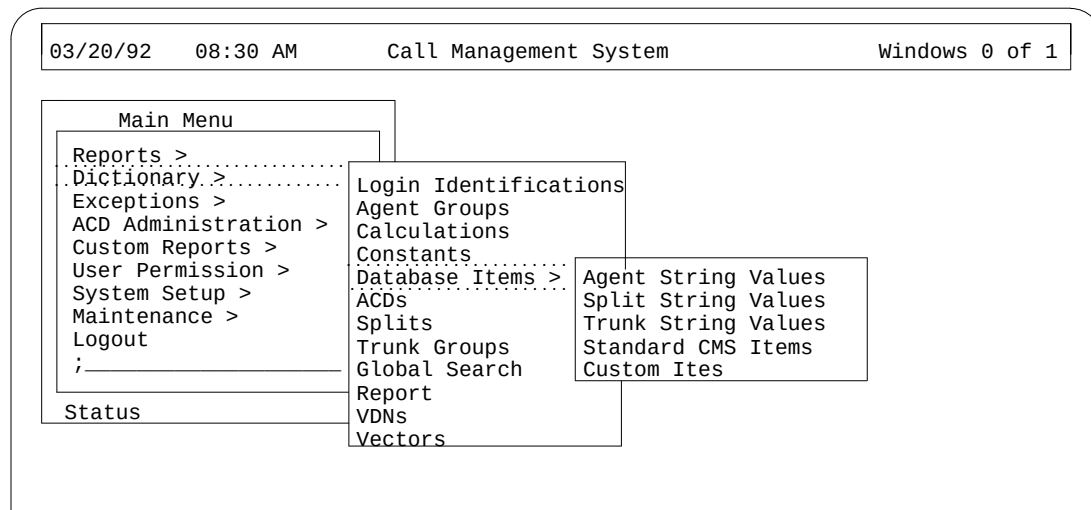


Figure 7-11. Database Items Menu

Agent String Values

Agent string values are the descriptive words that appear 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 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 will be truncated on those reports.
- If you do **not** assign different values to the Agent String Values, the default value will be 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 10, “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 6, “Timetables and Shortcuts” for more information and procedures.

Agent String Values Window

To modify the default agent string values, you must complete this window.

01/30/9208:30 AMCall Management SystemWindows 1 of 4

Dictionary: Database Items: Agent String ValuesAll ACDs

Work Mode

ACD: ACD

ACW: ACW

AUX: AUX

AVAIL: AVAIL

DACD: DACD

DACW: DACW

OTHER: OTHER

RINGING: RINGING

UNKNOWN: UNKNOWN

UNSTAFF: UNSTAFF

Agent Trace Work Mode

LOGON: LOGON

LOGOFF: LOGOFF

Call Direction

IN: IN

OUT: OUT

Call Origination

PHONE: PHONE

ADJUNCT: ADJUNCT

Call Destination

PBX: PBX

OFF: OFF

Modify

Figure 7-12. Agent String Values Window Example

Field/Action List Usage

Modify

This window displays with the default values for each agent state. If you clear a field and do a **Modify**, that state field is “blanked out.”

Field Descriptions

Agent Work Mode

If you want to modify any of the agent work mode (state) names, enter your 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 call, working on a call for another split, 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: — CMS does not recognize the current state (for example, when the link first comes up and before the switch sends data, CMS cannot recognize the state).
 - UNSTAFF: — The agent is not staffed (logged into CMS).

Agent Trace Work Mode

If you want to modify the default agent trace work modes, enter your change 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.

Call Direction

If you want to modify the default call direction names, enter the change 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

⇒ NOTE:

Call origination is used only with the OCM (Outbound Call Management) feature. For more information on OCM, see the documentation shipped with your OCM software package.

If you want to change the default call origination names, enter your change next to PHONE or ADJUNCT. Agents can be on three different types of outbound calls:

- PHONE: — The agent dials an outbound call using the voice terminal (telephone) dialing pad.
- ADJUNCT: — The agent is on an outbound ACD call initiated by a separate adjunct processor.

Call Destination

If you want to modify the default call destination names, enter your change next to PBX or OFF.

⇒ NOTE:

Call destination is used only with the OCM (Outbound Call Management) feature. For more information on OCM, see the documentation shipped with your OCM software package.)

- PBX: — Internal to the switch.
- OFF: — To an outside switch location.

Split String Values

Split string values are the descriptive words that appear on the Split Call Profile reports. The *word* is used to describe the value of the data. From the Split String Values window, you can change the 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 will be truncated to fit on those reports.
- If you do **not** assign different values to the Split String Values, the default values will be 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 string values, you need **read** permission for the Dictionary subsystem.
- To change any split string values, you need **write** permission for the Dictionary subsystem.
- See Chapter 10, “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 the Split Call Profile report.

Timetable

The Split String Values window can be placed on a timetable. See Chapter 6, “Timetables and Shortcuts” for more information and procedures.

Split String Values Window

To modify the default values for split strings, you must complete the Split String Values window.

The screenshot shows a window titled "04/13/92 08:30 AM Call Management System" with "Windows 1 of 1" in the top right. The main content area is titled "Dictionary: Database Items: Split String Values" and "acd1". It contains two sections: "Service Level Changed" and "Period Changed". Each section has "YES:" and "NO:" labels followed by text input fields. The "YES:" fields contain the text "Yes" and the "NO:" fields contain the text "No". A "Modify" button is located to the right of the "Service Level Changed" section. Below these sections is a "Status" label.

Dictionary: Database Items: Split String Values		acd1
Service Level Changed	YES: Yes NO: No	Modify
Period Changed	YES: Yes NO: No	
Status		

Figure 7-13. Split String Values Window Example

Field/Action List Usage

Modify

This window displays with the default values for each agent state. If you clear a field and do a Modify, that state field is "blanked out."

Field Descriptions

Service Level Changed

On the Split Call Profile window (see Chapter 9, “ACD Administration”), you can change the service levels at any time. From the Split - String Values window, you can modify the following *service level changed* default values that appear on the Split Call Profile report:

- YES: — If you do not want YES to appear when you have changed your service level on the Split Call Profile window, enter your descriptive word.
- NO: — If want something other than NO to appear if you have not changed your service level, enter your descriptive word here.

Period Changed

On the Split Call Profile report (both real-time and historical), there are ten time increments of administrable length. You can modify the following *period changed* default values that appear on the Split Call Profile report:

- YES: — Appears if you change the time periods on the Split Call Profile report. If you want to change YES, enter your descriptive word.
- NO: — Appears if you have not changed the time periods on the Split Call Profile report. If you want to change NO, enter your descriptive word.

Trunk String Values

Trunk string values are descriptive words that you see 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 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 will be truncated to fit on those reports.
- If you do **not** assign different values to the Trunk String Values, the default value will be 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 10, “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 descriptive data (word) fields on any of the standard trunk reports.

Timetable

The Trunk String Values window can be placed on a timetable. See Chapter 6, “Timetables and Shortcuts” for more information and procedures.

Trunk String Values Window

To change the default trunk string values, you must complete this window.

04/13/92 08:30 AM Call Management System		Windows 1 of 1	
Dictionary: Database Items: Trunk String Values		All ACDS	
Trunk State		Call Priority (Non-vectoring) Modify	
IDLE:	IDLE	YES:	YES
SEIZED:	SEIZED	NO:	NO
QUEUED:	QUEUED	Call Priority (Vectoring)	
CONN:	CONN	LOW:	LOW
DABN:	DABN	MED:	MED
FBUSY:	FBUSY	HIGH:	HIGH
FDISC:	FDISC	TOP:	TOP
HOLD:	HOLD	Call Direction	
MBUSY:	MBUSY	IN:	IN
RINGING:	RINGING	OUT:	OUT
UNKNOWN:	UNKNOWN	All Trunks Busy	
Queue Type		YES:	YES
MAIN:	MAIN	NO:	NO
BACKUP:	BACKUP		

Figure 7-14. Trunk String Values Window Example

Field/Action List Usage

Modify

This window is displayed with the default values for each agent state. If you clear a field and do a Modify, that state field is “blanked out.”

Field Descriptions

Trunk State

If you want to modify any of the trunk states, enter your descriptive word next to any of the following trunk states. Trunks can be in any of the following states:

- 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 waiting for an agent to become available.
- CONN: — The caller and an agent are connected on an ACD call.
- DABN: — The queued caller abandoned the call.
- FBUSY: — The caller receives forced busy signal if you have a Generic 1, Generic 3, or Generic 2/System 85 with Call Vectoring.
- FDISC: — The caller receives a forced disconnect. This appears only if you have the Vectoring feature.
- 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: — CMS cannot recognize the trunk state.

Queue Type

To replace the default value for queue type, enter your descriptive name next to any of the following. The name you enter here will appear instead of the default in any real-time reports containing the trunk database item queue type. (No standard reports contain this item.)

- **MAIN:** — The call seizing the trunk is queued to a split as a result of a “queue to main split” vector command.
- **BACKUP:** — The call seizing the trunk is queued to a split as a result of a “check backup split” vector command.

Call Priority (Non-vectoring)

To replace the call priority default values, enter your descriptive name next to any of the following.

- **YES:** — The call seizing the trunk has priority entering the split.
- **NO:** — The call seizing the trunk does not have priority entering the split.

Call Priority (Vectoring)

To replace the call priority with vectoring default values, enter your descriptive name next to any of the following. The priority level at which calls on a trunk will queue to a split is specified using either the "queue to main split" or "check backup split" command in the vector associated with the trunk. The name you enter here will appear instead of the default 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 at the lowest priority level.
- **MED:** — The call seizing the trunk is queued to a split at the second lowest priority level.
- **HIGH:** — The call seizing the trunk is queued to a split at the second highest priority level.
- **TOP:** — The call seizing the trunk is queued to a split at the highest priority level.

Call Direction

If you want to modify the call direction items, enter the change next to `IN` or `OUT`.

- **IN:** — The trunk is currently carrying an incoming call.
- **OUT:** — The trunk is currently carrying an outgoing call.

All Trunks Busy

To change your all trunks busy default values, enter your change next to any of the following.

- **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 CMS database tables. 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 (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.

An example of a *Current Real-Time Agent* table with standard CMS database item column headings follows to help you understand how CMS uses these tables:

Table 7-1. Current Real-Time Agent Example

EXTENSION	SPLIT	LOGID	LOGONSTART	WORKMODE	STARTED	DIRECTION	CHANGED	>*
1000	1	4000	8:00	AVAIL	8:00	NULL	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 more data follows down the table.

Column Headings (Database Items) Explanations for Table 7-A

EXTENSION	The extension number that the agent is using.
SPLIT	The split 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 CMS.
WORKMODE	The agent's current work mode (AVAIL, AUX, ACD, ACW, OTHER, DACD, DACW).
STARTED	The time of day the agent started this workmode.
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 very brief example, each extension will have an entry for each agent activity, and these tables can become quite large. Initially, you will probably be looking up database items for their definitions, but you will use them most when creating custom reports. See the CMS Custom Reports (585-215-513) 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 will use the database items when creating custom reports. See the *Call Management System Custom Reports* (585-215-513) document for more information.

Standard CMS Items Window

To view standard CMS items, complete the following window.

03/20/92 08:30 AM Call Management System Windows 1 of 4

Dictionary: Standard CMS Items

Database item: _____
Description: _____
Table: _____

All ACDS
Find one
List all
Next
Previous

Figure 7-15. Standard CMS Items Window Example

Field/Action List Usage

You may use pattern searching in any of the fields on the Standard CMS Items window.

List all

Displays the database item name, the table in which the item occurs, and a description of the database item.

Field Descriptions

Database item:

Enter the name of the database item you want to look up.

Description:

Describes the database item.

Table:

Lists all the tables (one table at a time) that contain this particular database item (real-time and historical).

Custom Items

From the Custom Items window, you may define your own database items which will be stored in their own tables within the CMS database. This allows you to combine your own data with CMS data on custom reports. You will also be able to add, change, or delete your own database items.



NOTE:

See the CMS Custom Reports document (585-215-513) 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.
- You should first create the table in INFORMIX before you create a custom database item.

Relationships to Other Subsystems

Custom Reports

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

Custom Items Window

To add, delete, modify, or view your own custom database items, complete the Custom Items window.

03/20/92 08:30 AM

Call Management System

Windows 1 of 4

Dictionary: Custom Items

ACD1

Database item: _____	Add
Description: _____	Delete
Table: _____	Find one
	List all
	Modify
	Next
	Previous

Status

Figure 7-16. Custom Items Window Example

Field/Action List Usage

List all

Displays the database item name, the table in which it occurs, and a description of the database item.

Field Descriptions

Database item:

Enter 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.

Description:

Enter a description of your database item. You can add, modify, or delete this description.

Table:

Lists the table in which this particular database item appears. You should first create and define the table in INFORMIX.

ACDs

Purpose

From the ACDs window, you will be able to assign a name to the real or pseudo-ACD.

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 will not appear on the changed ACD's window border until the user opens 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 10, "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 will then appear 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 6, "Timetables and Shortcuts" for more information and the procedures.

ACDs Window

To add, modify, delete, or view ACD names, complete the following window.

03/20/92 08:30 AM Call Management System Windows 1 of 4

Dictionary : ACDs

ACD name: _____

ACD number: _____

Description: _____

Add
Delete
Find one
List all
Modify
Next
Previous

Figure 7-17. ACDs Window Example

Field/Action List Usage

Add

Requires an entry in the ACD name: and ACD Number: fields.

Delete

Requires an entry in the ACD name field.

Modify

Requires an entry in the ACD number field.

List all

Displays the ACD name, ACD number, and a description of that ACD.

Field Descriptions

ACD name :

Enter the name you want to add, delete, modify, or view for this ACD.

ACD number :

Enter the ACD number you want to correspond to the name entered in the ACD name : field.

Description:

Enter any descriptive information about this ACD.

Splits

Purpose

You can assign names to your ACD splits from the Splits window. The split names will then appear on your split reports, making your reports easier to identify and read.

Things to Know Before You Start

- Split names should concretely reflect the configuration of your splits 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.
- When naming splits, you may want to be consistent with the names given splits by your switch administrator.
- If you assign a name to a split, the split number will no longer appear on split reports or windows. The split name will appear 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 names, you need **read** permission for the Dictionary subsystem.
- To add, delete, or change a split name, you need **write** permission for the Dictionary subsystem and the appropriate split.
- See Chapter 10, “User Permissions,” for more information on assigning read/write permission.

Relationships to Other Subsystems

Reports

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

Exceptions

If you assign exceptions to splits, the split names you assign will appear in the exceptions text. Also, if you change a split name, the new name will appear in the exception text for all exceptions logged after the change.

Forecasting

Split names will appear on forecasting reports if you have purchased and are using the Forecasting feature.

Timetable

You can place the Splits window on a timetable. See Chapter 6, "Timetables and Shortcuts" for more information and procedures.

Splits Window

To add, delete, modify, or view split names, you must complete the following window.

04/13/92 08:30 AM Call Management System Windows 1 of 4	
Dictionary: Splits acd1	
Split name: _____	Add Delete Find one List all Modify Next Previous
Split number: _____	
Description: _____	

Figure 7-18. Splits Window Example

Field/Action List Usage

Add

Requires an entry in the `Split name:` and `Split number:` fields.

Delete

Requires an entry in the `Split name` field.

Modify

Requires an entry in the `Split number` field.

List all

Displays the split name, split number, and a description of the split.

Field Descriptions

Split name:

Enter the name you want to add, delete, modify, or view for this split.

Split number:

Enter the split number that corresponds to the name entered in the `Split name` field.

Description:

Enter any descriptive information for this split.

Trunk Groups

Purpose

From the Trunk Groups window, you can assign names to your ACD trunk groups. The trunk group names will then 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 name, or any other name that concretely reflects the configuration of your trunk groups, splits, and ACD(s).
- When naming trunk groups, you may want to be consistent with the names given trunk groups and splits by your switch administrator.
- If you assign a trunk group name, the trunk group number will not appear on trunk group reports or windows. The name will.
- 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 10, “User Permissions,” for more information on assign read/write permission.

Relationships to Other Subsystems

Reports

When you assign a trunk group name, that name will appear on all trunk group windows and reports (real-time and historical). If you make any additions or changes to trunk group names, the changes will 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 will appear in the exceptions text. Also, if you change a trunk group's name, the new name will appear in the exception text for all exceptions logged after the change.

Forecasting

Trunk group names will appear on forecasting reports if you have purchased and are using the Forecasting feature.

Timetable

You can place the Trunk Groups window on a timetable. See Chapter 6, "Timetables and Shortcuts" for more information and procedures.

Trunk Groups Window

To add, delete, modify, or view trunk group names, you must complete the following window.

04/13/92 08:30 AM		Call Management System	Windows 1 of 4
Dictionary: Trunk Groups			
Trunk group name:	_____	Add Delete Find One List All Modify Next Previous	acd1
Trunk group number:	_____		
Description:	_____		

Figure 7-19. Trunk Groups Window Example

Field/Action List Usage

Add

Requires an entry with the Trunk group name: and Trunk group number:.

Delete

Requires an entry in the Trunk group name field.

Modify

Requires an entry in the Trunk group number field.

List all

Displays the trunk group name, trunk group number, and a description of the trunk group.

Field Descriptions

Trunk group name:

Enter the name you want to add, delete, modify, or view for this trunk group.

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 about this trunk group.

Global Search

Purpose

From Global Search, you can search for anything in the Dictionary. This might be a login ID or a group of login IDs; split, trunk, 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*.



NOTE:

If you enter an asterisk (*) by itself, you will get **everything** in the Dictionary subsystem. This will take a very long time and use a lot of processor time.

- Searching is case-sensitive.
- Basic search rules apply (see CMS User Basics).
- The “Dictionary-Specific Rules” apply.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

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

Global Search Window

To run a global search of the Dictionary, complete the following window.

03/20/92 08:30 AM

Call Management System

Windows 1 of 2

Dictionary: Global Search Input

All ACDs

Search for: Sales

Run

Status

Dictionary: Global Search

All ACDs

Value matched	Field matched	In submenu	Name
Sales	Split name	Splits	Sales
Sales	Agent group name	Agent Groups	Sales

Figure 7-20. Global Search Example

Field Descriptions

Search for:

Enter your search pattern.

Value matched (Display only field)

The match for your search pattern.

Field matched (Display only field)

The name of the field in which your search pattern was found.

In submenu (Display only field)

The Dictionary submenu where your search pattern was found.

Name (Display only field)

The name that corresponds to the Value matched field.

Report

Purpose

From the Report window, you may select any section of the Dictionary listed on the Report window to be printed or displayed in a set of reports (one report for each section of the Dictionary), or you can have 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 6, "Timetables and Shortcuts" for more information.

Report Window

To get a report of any section of the Dictionary listed on the Report Window (Figure 7-20), you must complete the following window.

The screenshot shows a window titled "04/13/92 08:30 AM Call Management System Windows 1 of 1". Inside, there's a "Dictionary: Report" window with a list of sections: All, Login Identification, Agent Groups, Standard CMS Items, Custom Items, ACDS, Splits, Trunk Groups, Call Work Codes, VDNs, and Vectors. A "Run....." button is next to the list. A "Set dest>" dialog box is open, titled "Dictionary: Report - Set Destination". It has a "Select only one:" section with options "< > Terminal" and "<x> Printer, Printer name pr1". There's a "File Name" field and a "Modify" button. At the bottom of the main window, it says "Destination is printer pr1."

Figure 7-21. Dictionary Report Input Window

Field/Action List Usage

Run

Generates the report.

Set dest

Brings up a secondary window that allows you to select your report destination. You select one of three destination options — terminal, printer, or file.

Field Descriptions

Select any you wish:

From the list, enter an x next to only those sections of the Dictionary you would like printed or displayed in a report. If you want all the Dictionary sections listed, select ALL.

NOTE:

The ALL selection takes a long time to run. You may want to schedule this selection for off-peak hours.

Call Work Codes

Purpose

From the Call Work Codes window, you can assign a name to correspond to a specific call work code. These names would then appear on the call work code standard historical reports.

Things to Know Before You Start

- For the call work codes menu item to appear, you must have purchased the Call Work Codes feature on the DEFINITY Generic 2.2 switch or the DEFINITY Generic 3 switches.
- 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 9, “ACD Administration — Call Work Codes,” for more information on administering call work codes.

Prerequisite System Administration

- You should 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 9, “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 10, “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 10, “User Permissions,” for more information.

Relationships to Other Subsystems

Standard Historical Reports

Daily, weekly, and monthly historical reports are available for call work codes.

Timetable

You can place the Call Work Codes window on a timetable. See Chapter 6, “Timetables and Shortcuts,” for more information and procedures.

Call Work Codes Window

You must fill out this window if you want names associated with your call work codes to appear on the standard call work code historical reports.

03/20/92 08:30 AM Call Management System		Windows 1 of 1
Dictionary: Call Work Codes acd1		
Call work code name: _____	Add Delete Find One List All Modify Next Previous	
Call work code: _____		

Figure 7-22. Call Work Codes Window Example

Field Descriptions

Call work code name:

Enter the name you want to add, delete, modify, or view for this call work code.

Call work code:

Enter the call work code number for the name entered in the Call work code name field.

VDNs



NOTE:

If you have not purchased the Vectoring feature, this window will **not** be available.

Purpose

You assign names to VDNs so that names, instead of VDN numbers, will appear on VDN reports and VDN administration windows. Your VDN names should concretely 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 7-22) to assign names to your VDNs.

Things to Know Before You Start

- If you assign names to VDNs on the PBX, you may want to assign the same names in CMS. However, the names can be different since the PBX sends only VDN numbers, not VDN names, to CMS.
- A **List all** will list only the VDNs that have already been assigned names. To know what other VDNs are available to you for naming, you should do a **List all** on the ACD Administration: VDN Assignments window. See the “VDN Assignments” section in Chapter 9 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

- VDNs must be created on the PBX and assigned to 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 10, “User Permissions,” for more information on assigning read/write permission.

Relationships to Other Subsystems

Reports

When you assign a VDN name, that name will appear on all reports (real-time and historical) that include that VDN. If you make any additions or changes to VDN names, the changes will 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 will appear in the exceptions text. Also, if you change a VDN name, the new name will appear in the exception text for all exceptions logged after the change.

VDNs Window

To add, delete, modify, or view VDN names, you must complete the following window.

03/20/92 08:30 AM Call Management System Windows 1 of 1																	
<table border="1"><tr><td>Dictionary : VDNs</td><td>acd1</td></tr><tr><td>VDN name: _____</td><td>Add</td></tr><tr><td>VDN: _____</td><td>Delete</td></tr><tr><td>Description: _____</td><td>Find One</td></tr><tr><td>_____</td><td>List All</td></tr><tr><td>_____</td><td>Modify</td></tr><tr><td></td><td>Next</td></tr><tr><td></td><td>Previous</td></tr></table>		Dictionary : VDNs	acd1	VDN name: _____	Add	VDN: _____	Delete	Description: _____	Find One	_____	List All	_____	Modify		Next		Previous
Dictionary : VDNs	acd1																
VDN name: _____	Add																
VDN: _____	Delete																
Description: _____	Find One																
_____	List All																
_____	Modify																
	Next																
	Previous																

Figure 7-23. VDNs Window

Field/Action List Usage

View

To view the name(s) assigned to VDN(s), enter the characters you want to search on in any field(s) and select **List all**.

Add

To add a VDN name, you must complete the VDN name and VDN fields and select **Add**. The Description field is optional.

Modify

To modify a VDN name, you must complete the VDN name and VDN fields and select **Modify**. To **modify** a VDN description, you must complete either the VDN name or VDN field, change the description, and select **Modify**.

Delete

To delete a VDN name, complete either the VDN name or VDN field, and select **Delete**.

Field Descriptions

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 will **not** be available.

Purpose

You assign names to vectors so that the names, instead of vector numbers, will appear on vector reports and administration windows. Your vector names should concretely reflect the configuration of your ACD. A name may indicate a vector's purpose (*sales*, *customer service*, and so on), the VDN(s) assigned to the vector (for example, *2001,3001,4001*), or the split(s) the vector sends calls to (for example, *sales1, sales2, audix*).

Use the Vectors window (Figure 7-23) to assign names to 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 actually been defined.
- A **List all** will list only vectors that have already been assigned names. To get a list of other vectors available to you for naming, you should do a **List all** on the Vector Configuration Report window. See the “Vector Configuration” section in Chapter 9 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 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 10, “User Permissions,” for more information on assigning read/write permission.

Relationships to Other Subsystems

Reports

When you assign a vector name, that name will appear on all reports (real-time and historical) that include that vector. If you make any additions or changes to vector names, the changes will 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 will appear in the text for vector exceptions. Also, if you change a vector name, the new name will appear in the exception text only for exceptions logged after the change.

Vectors Window

To add, delete, modify, or view vector names, you must complete the following window.

03/20/92 08:30 AM Call Management System		Windows 1 of 1
Dictionary : Vectors		acd1
Vector name: _____		Add Delete Find One List All Modify Next Previous
Vector number: _____		
Description: _____		

Figure 7-24. Vectors Window

Field/Action List Usage

View

To view the name(s) assigned to vector(s), enter the characters you want search on in any field(s) and select **List all**.

Add

To add a vector name, you must complete the **Vector name** and **Vector** fields and select **Add**. The **Description** field is optional.

Modify

To modify a vector name, you must complete the Vector name and Vector fields and select **Modify**. To **modify** a vector description, you must complete either the Vector name or Vector field, change the description, and select **Modify**.

Delete

To delete a vector name, complete either the Vector name or Vector field and select **Delete**.

Field Descriptions

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

Purpose of Exceptions Subsystem

Use the Exceptions subsystem to:

- Define exceptional conditions for ACD activity involving agents, splits, trunks/trunk groups, vectors and VDNs for which you want notification. You do this using the Exception Administration windows.
- Generate reports on agent, split, trunk and trunk group, vector, VDN, 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.

What an Exception Is

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

- The terminal will beep, flash, or beep and flash at the same time — unless you have disabled both the beep and flash (see Chapter 13, “UNIX System,”). The default is beep. See “Selecting Your Exception Notification” to select the beep and flash later in this chapter.
- In the CMS title bar, the **EX** field will show a running count of current exceptions. Whenever an exception occurs, the count will increase by one. The count is reset to zero when a new intrahour reporting interval starts.

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 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 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.

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 3 for the number of acceptable calls which can wait in the queue for 20 seconds. If, within an interval, more than 3 separate calls wait in the queue longer than 20 seconds, an exception will occur.

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, 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 your login ID. 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, CMS will start 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 and Generic 3r 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 10, “User Permissions.”)

You must have exceptions permissions for a particular split, 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, trunk group, VDN, or vector. Permissions for specific splits, trunk groups, VDNs, or vectors are assigned in one of the following windows:

- **User Permissions: Split Access**
- **User Permissions: Trunk Group Access**
- **User Permissions: Vector Access**
- **User Permissions: VDN Access**

See Chapter 10, “User Permissions,” for more information.

⇒ NOTE:

If you have exceptions permission for a particular split, but you **do not** have read permission for the Exceptions subsystem, CMS will notify 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 the following table.)

Table 8-1. Capabilities Based on Permissions (Example for a Split)

Read Permission - Exceptions Subsystem	Exceptions Permission for Split	Information You Can Get About Exceptions
yes	yes	Exception reports for split, messages for split in Exception Log, and real-time notification of exceptions for split.
yes	no	Exception reports for split, but no messages for split in Exception Log, and no real-time notification of exceptions for split.
no	yes	Real-time notification of exceptions for split, 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.

Relationships to Other Subsystems

System Setup

The number of historical exception records that CMS will store is assigned in the **System Setup: Data Storage Allocation** window. CMS can store up to 2000 exception records of each type. Thus, you can store up to 2000 agent, 2000 split, 2000 trunk group, 2000 VDN, and 2000 vector exception records for your ACD.



CAUTION:

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 will be backed up.

Dictionary

When you set up CMS to check for exceptions or order exception reports, you may enter split, trunk group, VDN, and vector names, instead of numbers, if you have created the names in the appropriate window in the Dictionary subsystem. (See Chapter 7, "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 will 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.

⇒ NOTE:

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 *Call Management System Custom Reports* (585-215-513) document for information on creating custom reports.

Timetable

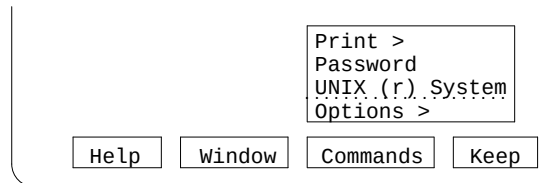
You can schedule exceptions administration and reports using timetable. See Chapter 6, "Timetables and Shortcuts," for more information and procedures.

Selecting Your Exception Notification

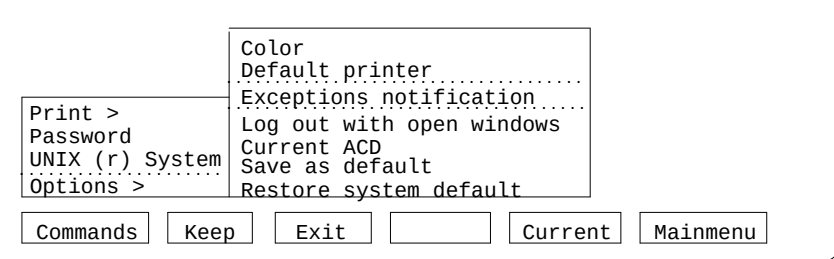
When you receive an exception notification, you can have your screen flash, beep, beep and flash, or not beep and not flash. Beep is the default value. You do this by selecting the **Commands** SLK, then **Options**, and finally the **Exceptions notification** menu item.

Procedure

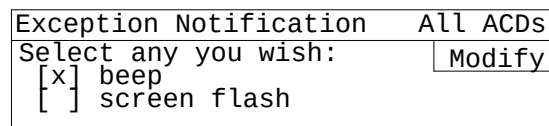
- 1 Press the **Commands** SLK. → *The Commands menu appears.*



- 2 Select **Options >** and press **Return**. → *The Options menu appears.*



- 3 Select **Exception notification** and press **Return**. → *The Exception notification window appears.*



-
4	Enter an x next to beep or screen flash (both or neither) and press Return .	→ <i>The cursor moves to the action list.</i>
5	Press Return again.	→ <i>Working appears on the status line until the action completes, then Successful appears.</i>
6	Press Exit to return to the current open window.	→ <i>The Exception notification window disappears.</i>

Exceptions Menus

Purpose

You must advance through the exceptions submenus (Figure 8-1 and 8-2) to access appropriate windows for the following general tasks:

- Administering agent, split, trunk/trunk group, vector, and VDN exceptions.
- Accessing the Real-Time Exceptions Log.
- Ordering historical agent, split, trunk/trunk group, vector, VDN, malicious call trace, and data collection exceptions reports.

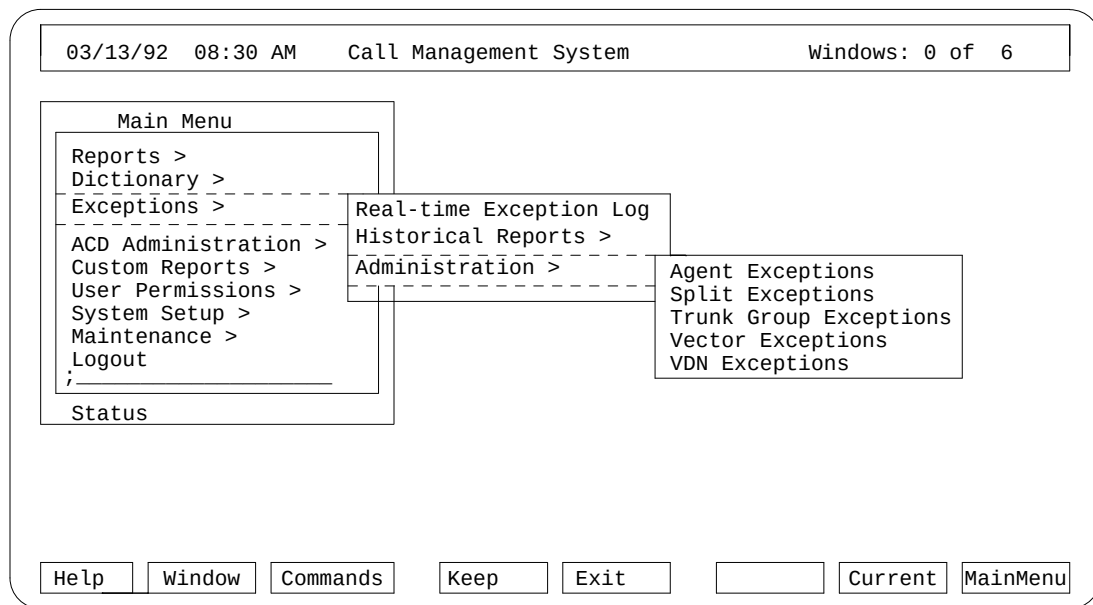


Figure 8-1. Administration Exceptions Submenu

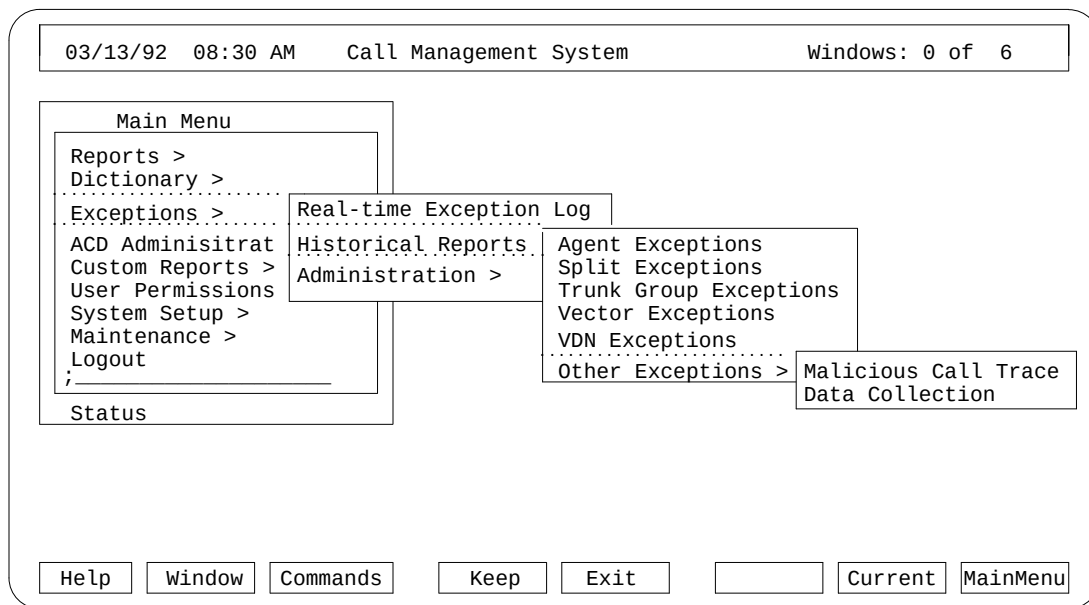


Figure 8-2. Historical Report Exceptions Submenus

⇒ NOTE:

Although the Exceptions menu lists the Real-Time Exceptions Log and Historical Reports before Administration, 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 won't see any data except for link down and malicious call trace exception conditions.) Therefore, this chapter presents the Exception Administration descriptions **before** the real-time exceptions log and historical reports.

Agent Exceptions Administration

Purpose

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

Things to Know Before You Start

- Agent exceptions are administered on a per-split 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 of “outbound” covers **only** internal outbound calls.
- All the standard procedures and common rules apply. See Chapter 2, “User Basics” for this information.
- See the following sections earlier in this chapter:
 - “General Rules for Administering Exceptions”
 - “User Permissions for Exceptions” for read/write information
 - “Relationships to Other Subsystems”.

Agent Exceptions Administration Window

You must fill out this window to set up and turn on CMS checking for agent exceptions.

03/13/92 12:30 PM Call Management SystemWindows: 1 of 6

Exceptions: Administration: Agent Exceptionsacd1

Split(s):

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>	Number of inbound ACW calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time on outbound ACW call
<u>n</u>		<u>0</u>	Number of outbound ACW calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time in AUX work
<u>n</u>	<u>0</u>	<u>0</u>	Time on inbound AUX call
<u>n</u>		<u>0</u>	Number of inbound AUX calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time on outbound AUX call
<u>n</u>		<u>0</u>	Number of outbound AUX calls/agent

Add
Delete
Find one
Modify
Next
Previous

Figure 8-3. Agent Exceptions Administration Window

03/13/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Administration: Agent Exceptionsacd1

Split(s):

Active	Time Limit	Thres-hold	Exception Type
<u>n</u>			Login identification
<u>y</u>	<u>10</u>	<u>4</u>	Time on outbound ACD call (min)
<u>y</u>	<u>300</u>	<u>0</u>	Time on outbound ACD call (max)
<u>y</u>		<u>4</u>	Number calls transferred
<u>y</u>	<u>60</u>	<u>1</u>	Time ACD call spent on hold
<u>y</u>		<u>4</u>	Number ACD calls placed on hold
<u>n</u>		<u>0</u>	Number ACD calls abandoned while on hold
<u>n</u>	<u>30</u>	<u>0</u>	Time ACD call spends ringing
<u>n</u>	<u>0</u>	<u>0</u>	Time on direct agent call
<u>n</u>		<u>0</u>	Number calls in direct agent queue
<u>n</u>	<u>0</u>	<u>0</u>	Time call waited in direct agent queue

Add
Delete
Find one
Modify
Next
Previous

03/13/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Administration: Agent Exceptionsacd1

Split(s):

Active	Time Limit	Thres-hold	Exception Type
<u>n</u>		<u>0</u>	Number calls abandoned from direct agent queue
<u>n</u>		<u>0</u>	Number calls outflowed from direct agent queue
<u>n</u>	<u>0</u>	<u>0</u>	Time on external outbound ACW calls
<u>n</u>		<u>0</u>	Number of external outbound ACW calls/agent
<u>n</u>	<u>0</u>	<u>0</u>	Time on external outbound AUX call
<u>n</u>		<u>0</u>	Number external outbound AUX calls/agent

Add
Delete
Find one
Modify
Next
Previous

Figure 8-3. Agent Exceptions Administration Window (Contd)

Field/Action List Usage

Delete

To **delete** all exceptions administration for all agents in a split, you only need to complete the `Split(s)` field.

Add or Modify

To **add** or **modify** exceptions administration, you must complete the `Splits` field and the fields for any exceptions you want to turn on or off.

Field Descriptions

`Split(s)`

Enter the split number(s) or name(s) for which you want to set up or modify CMS checking for exceptions.

Active (Required field)

Enter y or n to turn each desired exception type on or off.

Time Limit

For each desired timed exception type, enter a length of time to define the maximum (or minimum) time for an ACD activity to last before an occurrence is counted against the threshold. 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 field)

For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above that number will generate an exception.

This field requires an entry even if the `Active` field value is no.

Table 8-2. Definition of Agent Exception Types

Agent Exception	What It Means
Time Available	The time any agent spends in AVAIL (that is, idle). 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.
Time on inbound ACD call (min)	The minimum time you want any agent on an ACD call. 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.
Time on inbound ACD call (max)	The maximum time you want any agent on an ACD call. 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.
Time in after call work	A maximum time you want any agent in after call work. 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.
Time on inbound ACW call	The maximum time you want any agent to spend on an inbound call while in after call work. 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.
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.
Time on outbound ACW call	The maximum time you want any agent to spend on an outbound call while in after call work. 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.
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.

Table 8-2. Definition of Agent Exception Types (Contd)

Agent Exception	What It Means
Time in AUX work	The maximum time any agent can spend in auxiliary work. 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.
Time on inbound AUX call	The maximum time you want any agent to spend on an inbound call while in AUX (auxiliary) work. 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.
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.
Time on outbound AUX call	The maximum time you want any agent to spend on an outbound call while in AUX (auxiliary) work. 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.
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.
Login identification	Notifies you when a login violation has occurred. 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, CMS will notify you if the agent tries to log into one split 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, no data is collected for the second or third ID. NOTE: 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 login using more than one login ID.

Table 8-2. Definition of Agent Exception Types (Contd)

Agent Exception	What It Means
Time on outbound ACD call (min) (Generic 1, Generic 3 only)	The minimum time you want any agent on an outbound ACD call. 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.
Time on outbound ACD call (max) (Generic 1, Generic 3 only)	The maximum time you want any agent on an outbound ACD call. 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.
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.)
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. 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.
Number ACD calls placed on hold (Generic 2; System 85, R2V4; Generic 3 only)	The maximum number of times an agent can place an ACD call on hold. When the threshold is exceeded, you are notified.
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.
Time ACD call spends ringing (System 85 R2V4, Generic 2, Generic 3 only)	The maximum time a split or direct agent call can ring at an agent's telephone before an exception is pegged. CMS checks the allowed ringing time before an occurrence is counted against the threshold. When the threshold is exceeded, you are notified.
Time on direct agent call (Generic 3 only)	The maximum time (in seconds) you want any agent to spend on a direct agent call. 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.

Table 8-2. Definition of Agent Exception Types (Contd)

Agent Exception	What It Means
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. That is, calls in queue can exceed the threshold and then fall below the threshold and then exceed the threshold again. 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. 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.
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.
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.
Time on external outbound ACW calls (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). 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.
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.
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. 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.
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.

Split Exceptions Administration

Purpose

Use the Split Exceptions Administration window to define exceptions and turn on CMS checking for split exceptions.

Things to Know Before You Start

- All standard procedures and common rules apply. See Chapter 2, “User Basics” for this information.
- The following sections earlier in this chapter apply to Split Exception Administration:
 - “General Rules for Administering Exceptions”
 - “User Permissions for Exceptions” for read/write information
 - “Relationships to Other Subsystems”.

Split Exceptions Window

You must fill out this window to set up and turn on CMS checking for split exceptions.

03/29/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Administration: Split Exceptionsacd1

Split(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
<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

Add

Delete

Find one

Modify

Next

Previous

Figure 8-4. Split Exception Administration Window

Field/Action List Usage

Delete

To **delete** all exceptions administration for a split, you need only complete the Split(s) field.

Add or Modify

To **add** or **modify** exceptions administration, you must complete the Splits field and the fields for any exceptions you want to turn on or off.

Field Descriptions

Split(s)

Enter the split number(s) or name(s) for which you want to set up or modify CMS checking for split exceptions.

Active (Required field)

Enter y or n to turn each desired exception type on or off.

Time Limit (Required field)

For each desired timed exception type, enter a length of time to define the maximum (or minimum) time for an ACD activity to last before an occurrence is counted against the threshold. 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 field)

For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above that number will generate an exception.

This field requires an entry even if the Active field value is no.

Table 8-3. Definitions of Split Exceptions Type

Split Exception	What It Means
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 your threshold, you are notified.
Number calls waiting	The total number of calls that you want waiting in queue at any one time. Each time the number of waiting calls exceeds your threshold, you are notified. That is, calls in queue can exceed the threshold and then fall below the threshold and then exceed the threshold again. For example, if the threshold to trigger an exception for the split 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.
Number calls abandoned	Total number of acceptable abandoned calls. When the number of abandoned calls exceeds your threshold, you are notified.
Average speed of answer (seconds)	When the average speed of answer for the split 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 your average speed of answer threshold, you are notified.
Number intraflowed-out calls	The acceptable number of calls that can intraflow out of the split before an occurrence is counted against the threshold limit (your acceptable number). When the number of intraflowed-out calls exceeds your threshold, you are notified.
Number intraflowed-in calls	The acceptable number of calls that can intraflow in to the split 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.

Table 8-3. Definitions of Split Exceptions Type (Contd)

Split Exception	What It Means
Number interflowed-out calls	The acceptable number of calls that can interflow out of the split before you are notified.
Number calls handled as backup (Generic 3, System 85 R2V4, and Generic 2 with vectoring only)	The acceptable number of calls that this split can handle as a backup for another split before you are notified.
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 before you receive an exception notification.
Number calls offered while queue full (Generic 1 and Generic 3 only)	The acceptable number of calls that can be offered to the split while the queue is full before you receive an exception notification.

Trunk Group Exceptions Administration

Purpose

Use the Trunk Group Exceptions Administration window to define exceptions and turn on 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” for this information.
- The following sections earlier in this chapter apply to Trunk Group Exceptions Administration:
 - “General Rules for Administering Exceptions”
 - “User Permissions for Exceptions” for read/write information
 - “Relationships to Other Subsystems”.

Trunk Group Exceptions Window

To define and turn on CMS checking for trunk group exceptions, you must fill out this window.

03/13/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Administration: Trunk Group Exceptionsacd1

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
Delete
Find one
Modify
Next
Previous

Figure 8-5. Trunk Group Exceptions Administration Window

Field/Action List Usage

Delete

To delete all exceptions administration for a trunk group, you only have to complete the Trunk groups field.

Add or Modify

To add or modify exceptions administration, you must complete the Trunk groups field and the fields for any exceptions you want to turn on or off.

Field Descriptions

Trunk groups

Enter the trunk group number(s) or name(s) for which you want to set up or modify CMS checking for trunk group exceptions.

Active (Required field)

Enter y or n to turn each desired exception type on or off.

Time Limit (Required field)

For each desired timed exception type, enter a length of time to define the maximum (or minimum) time for an ACD activity to last before an occurrence is counted against the threshold. 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 field)

For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Anything above that number will generate an exception.

This field requires an entry even if the Active field value is no.

Table 8-4. Trunk Group Exception Types

Exception Type	What It Means
Time trunk in use (min)	The minimum acceptable time any trunk in the trunk group can be in use. CMS checks the allowed time a trunk is in use before an occurrence is counted against the threshold. When the threshold is exceeded, you receive an exception notification.
Time trunk in use (max)	The maximum acceptable time any trunk in the trunk group is in use. CMS checks the allowed time a trunk is in use before an occurrence is counted against the threshold. When the threshold is exceeded, you receive an exception notification.
Time any trunk maintenance busy	The maximum time any trunk in the trunk group can be maintenance busy. CMS checks the allowed time any trunk is maintenance busy before an occurrence is counted against the threshold. When the threshold is exceeded, you receive an exception notification.
Length of time all trunks busy	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.
Number of trunk failures in group	The maximum acceptable number of trunks failing to carry a call in a trunk group. CMS checks the allowed number of trunk failures before you receive an exception notification.
Number of trunks in use	The maximum acceptable number of trunks that can be in use at any one time in the trunk group. Each time the allowed number of trunks in use exceed your threshold within the interval, you receive an exception notification.
Number of trunks maintenance busy	The maximum acceptable number of trunks that can be maintenance busy in the trunk group without receiving an exception. Each time the allowed number of trunks maintenance busy exceed the threshold, you receive an exception notification.
Number of failures on a single trunk	The maximum acceptable number of failures a single trunk can have in the trunk group without counting as an occurrence. CMS checks the allowed number of trunk failures before you receive an exception notification.

VDN Exceptions Administration

NOTE:

If you do not have the Vectoring feature, the VDN Exceptions Administration window will not be available.

Purpose

Use the VDN Exceptions Administration window (Figure 8-6) to define exceptions and turn on 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” for this information.

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 lookahead interflow attempts, the VDN's vector must have at least one “route to” step which routes calls to a vector on a remote PBX.
- See “User Permissions for Exceptions” earlier in this chapter for the read/write information.

Relationships to Other Subsystems

- See “Relationships to Other Subsystems” earlier in this chapter.

VDN Exceptions Window

To define and turn on CMS checking for VDN exceptions, you must fill out this window.

03/13/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Administration: VDN Exceptions acd1

VDN(s): TG45to 47

Active	Time Limit	Thres-hold	Exception Type
y	30_	0__	Time in vector (max)
n	0__	0__	Time at agent (min)
n	0__	0__	Time at agent (max)
n		0__	Number calls abandoned while in vector
n		0__	Number calls forced busy
y		2__	Number calls disconnected
n		0__	Number calls in an ACD split queue
y		10_	Number calls that flowed into VDN
n		0__	Number calls that flowed out of VDN
n		0__	Number calls interflowed out of VDN
n		0__	Number calls handled by backup split
n		0__	Number unsuccessful lookahead interflow attempts
n		0__	Number unsuccessful adjunct routing attempts

Add
Delete
Find one
Modify
Next
Previous

Figure 8-6. VDN Exceptions Administration Window

Field/Action List Usage

Delete

To delete all exceptions administration for a VDN, you must complete only the VDNs field.

Add or Modify

To add or modify exceptions administration, you must complete the VDNs field and all fields for any exceptions you want to turn on or off.

Field Descriptions

VDNs

Type the VDN number(s) or name(s) for which you want to set up or modify checking for VDN exceptions.

Active (Required field)

Enter y or n to turn each desired exception type on or off.

Time Limit (Required field)

Enter for each desired timed exception type, a length of time to define the maximum (or minimum) time for an ACD activity to last before an occurrence is counted against the threshold. The time you enter is in seconds, from 0 to 28800.

This field required an entry even if the Active field value is no.

Threshold (Required field)

Enter a number from 0 to 999 to define the number of acceptable occurrences of an exception type. Any thing above that number will generate an exception.

This field required an entry even if the Active field value is no.

VDN Exception Types

Table 8-5 describes each VDN exception type. 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 a look-ahead vector or another 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 PBX.

Table 8-5. Definition of VDN Exception Types

Exception Type	What It Means
Time in vector (max)	Checks the length of time that a call is connected to a vector and counts an occurrence against the occurrence threshold when the time exceeds the number of seconds specified in the <i>Time Limit</i> field.
Time at agent (min)	Checks the length of time a call is connected to an agent (while still connected to the VDN) and counts an occurrence against the occurrence threshold when the time does not last as long as the number of seconds specified in the <i>Time Limit</i> field.
Time at agent (max)	Checks the length of time that a call is connected to an agent (while still connected to the VDN) and counts an occurrence against the occurrence threshold when the time exceeds the number of seconds specified in the <i>Time Limit</i> field.
Number calls abandoned while in vector	Counts an occurrence against the occurrence threshold each time a call is abandoned during vector processing. Included in the count are abandoned calls that queued to a split, rang at an agent terminal, or routed to other vectors (via a “go to vector” step) in the ACD.
Number calls forced busy	Counts an occurrence against the occurrence threshold each time a call, during vector processing, is given a busy signal by the PBX (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.
Number calls disconnected	Counts an occurrence against the occurrence threshold each time a call, during vector processing, is automatically disconnected from the PBX (see Disconnect command). Included in the count are calls that were disconnected after they routed to other vectors (via a “go to vector” step) in the ACD. Not included are calls that were disconnected after receiving a busy signal (via the “busy” command).
Number calls in an ACD split queue	Logs an exception if, at any time, the total number of calls in queue for all main and backup splits exceeds the occurrence 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 will receive an exception each time the threshold is exceeded.

Table 8-5. Definition of VDN Exception Types (Contd)

Exception Type	What It Means
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 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 PBX).
Number calls that flowed out of VDN	Counts an occurrence against the occurrence threshold each time a call is released from the VDN and routed to an external destination or another VDN.
Number calls interflowed out of VDN	Counts an occurrence against the occurrence threshold each time a call is released from the VDN and routed to another destination outside of the local PBX.
Number calls handled by backup split	Counts an occurrence against the occurrence threshold each time a call is connected to an agent in a backup split referenced by a “backup split” step in the VDN’s vector. Also included are calls that connected to an agent in a split referenced by a “messaging split” step or a “route to” step (that routes to the split extension).
Number unsuccessful lookahead interflow attempts	Counts an occurrence against the occurrence threshold each time a call fails to connect to a look-ahead vector on another PBX. The result is that the call remains in the current VDN and vector for continued processing.
Number unsuccessful adjunct routing attempts	Counts an occurrence against the occurrence 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.

Vector Exceptions Administration

NOTE:

If you do not have the Vectoring feature, the Vector Exceptions Administration window will not be available.

Purpose

Use the Vector Exceptions Administration window (Figure 8-7) to define exceptions and turn on CMS checking for vector exceptions.

Things to Know Before You Start

- On Generic 3i, 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” for this information.

Prerequisite System Administration

- Some exception types require that an appropriate step exist in the vector. For example, to get exceptions on unsuccessful lookahead interflow attempts, the vector must have at least one “route to” step which routes calls to a look-ahead vector on a remote PBX.
- See “User Permissions for Exceptions” earlier in this chapter for the read/write information.

Relationships to Other Subsystems

- See “Relationships to Other Subsystems” earlier in this chapter.

Vector Exceptions Window

To define and turn on checking for vector exceptions, you must fill out this window.

04/13/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Administration: Vector Exceptionsacd1

Vector(s): 20;30;40;50;mega5890

Active	Time Limit	Thres-hold	Exception Type
y	30_	0_	Time in vector (max)
y		10_	Number calls abandoned while in vector
n		0_	Number calls forced busy
n		0_	Number calls disconnected
y		15_	Number calls in an ACD split queue
n		0_	Number unsuccessful lookahead interflow attempts
n		0_	Number unsuccessful adjunct routing attempts

Add
Delete
Find one
Modify
Next
Previous

Figure 8-7. Vector Exceptions Administration Window

Field/Action List Usage

Delete

To delete all exceptions administration for a vector, you must complete only the Vectors field.

Add or Modify

To add or modify exceptions administration, you must complete Vectors field and all fields for any exceptions you want to turn on or off.

Field Descriptions

Vectors

Enter the vector number(s) or name(s) for which you want to set up or modify checking for vector exceptions.

Active (Required field)

Enter y or n to turn each desired exception type on or off.

Time Limit (Required field)

For each desired timed exception type, enter a length of time to define the maximum (or minimum) time for an ACD activity to last before an occurrence is counted against the threshold. 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 field)

For each desired exception type, enter a number from 0 to 999 to define the number of acceptable occurrences. Any thing above that number will generate an exception.

This field requires an entry even if the **Active** field value is no.

Vector Exception Types

Table 8-6 describes each vector exception type. CMS checking for vector exceptions begins when a call enters the vector and ends when the call connects to a agent or is routed to another destination.

Table 8-6. Definition of Vector Exception Types

Exception Type	What It Means
Time in vector (max)	Checks the time that a vector takes to process each call and counts an occurrence against the occurrence threshold when the time exceeds the number of seconds specified in the Time Limit field.
Number calls abandoned while in vector	Counts an occurrence against the occurrence threshold each time a call is abandoned during vector processing.
Number calls forced busy	Counts an occurrence against the occurrence threshold each time a call, during vector processing, is given a busy signal by the PBX (via a Busy command).
Number calls disconnected	Counts an occurrence against the occurrence threshold each time a call, during vector processing, is automatically disconnected from the PBX (via a Disconnect command).
Number calls in an ACD split queue	Logs an exception if, at any time, the total number of calls in queue for the vector's main and backup splits exceeds the occurrence threshold. Since this condition can come and go, you will receive an exception each time the threshold is exceeded.
Number unsuccessful lookahead interflow attempts	Counts an occurrence against the occurrence threshold each time a call fails to connect to a look-ahead vector on another PBX. The result is that the call remains in the current vector for continued processing.
Number unsuccessful adjunct routing attempts	Counts an occurrence against the occurrence 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.

Real-Time Exceptions Log

Purpose of the Real-Time Exceptions Log

The Real-Time Exceptions Log displays exception records for the last 10 exceptions that have occurred when first brought up to view, but the log can hold up to 100 exception records. As each new exception occurs, CMS adds a new record to the Log. If the Log already contains 100 records, CMS deletes the oldest exception record from the log at the same time it adds the new exception record.

The Log lists exception records in chronological order, with the oldest exceptions listed first.

The Log simultaneously displays exception records for all elements on the ACD, regardless of whether the exceptions involve agents, splits, trunk groups, VDNs, or vectors. You cannot select exception records for only VDNs, only vectors, etc. However, in the Log you will see only exception records on specific ACD elements (such as splits) for which you have exception permissions.

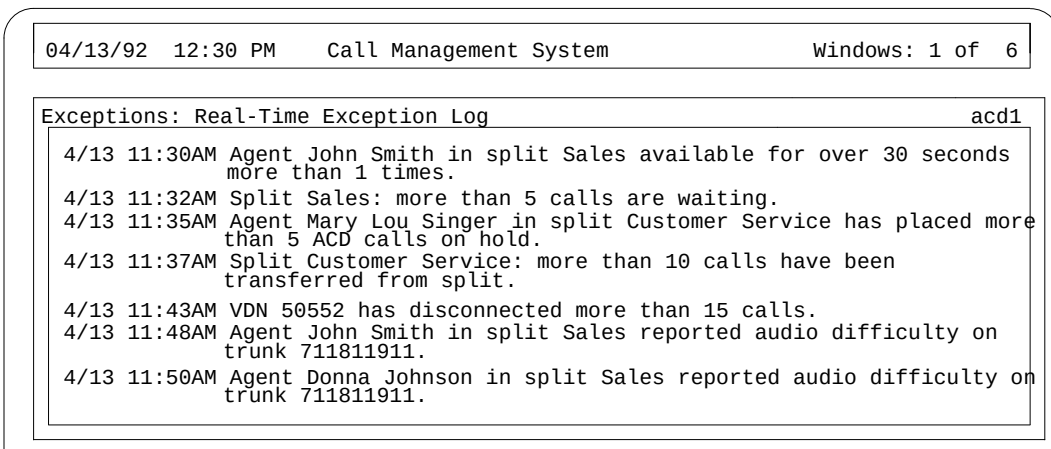


Figure 8-8. Real-Time Exceptions Log

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 will appear on the last line in the window. Then, as long as the Log's window remains open, the Log will automatically scroll to display each new exception record. However, if you manually page or scroll up to see older exception records, automatic scrolling for new exceptions will stop 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 will give you the following information:

- The date and time the exception occurred.
- The specific ACD element (a specific agent, split, VDN, etc.) that was involved in the exception. If you have defined names in the Dictionary subsystem, names will appear. Otherwise, numeric identifiers will appear.
- 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 will show the occurrence threshold you set, even though the actual number of occurrences may be substantially greater. For a timed exception, the exception record will show the time limit you set, not the actual duration of an occurrence.

Agent Exceptions Historical Report

Purpose

This report shows the time and type of exception that occurred for an agent. Each different exception will have an entry in the report, and you can select as many exceptions as you want to appear in the report.

Things to Know Before You Start

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 agent 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.

Prerequisite System Administration

- You must have **read** permission for the Exceptions subsystem and **read** permission for the particular split(s) in the report.
- 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 exception types turned on.

Agent Exceptions Input Window

You must fill in the Agent Exceptions Input window to order an historical Agent Exceptions Report.

03/13/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Historical Reports: Agent Exceptions Input acd1

Date: _____

Split: _____

Agent(s): _____

Run
Set dest

Order by (Select one):
<x> Time
< > Agent

Exceptions (Select any you wish):
[x] Time available
[x] Time on inbound ACD call (min)
[x] Time on inbound ACD call (max)
[x] Time in after call work
[x] Time on inbound ACW call
[x] Number of inbound ACW calls/agent
[x] Time on outbound ACW call

Destination is terminal v

Figure 8-9. Agent Exceptions Input Window Example

Field/Action List Usage

Date, Split, Order by (Select one)

To get a report, you must complete the Date, Split, Order by fields, and you should select at least one Exceptions type. If you do not select at least one exception, you will receive a blank report.

Agent(s):

You may leave the Agent's field blank to get a report on all agents in the split or fill in this field to restrict the report to certain agents.

Field Descriptions

Date:

Enter the date for which you want the report.

Type the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.

Split:

Enter the split 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):

Type 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 will be listed by the time exceptions occurred. If you select **Agent**, exceptions data will be 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 next to each exception type you **do not** want in the report.

NOTE:

This window scrolls automatically when you move the cursor to fields not currently visible.

Agent Exception Historical Report

See Table 8-7, “Agent Exceptions Report Description,” for a description of each agent exception report item.

Agent Exceptions					
Split: 1			ACD: 1		
Date: 3/31/92			Printed: 4/01/92 09:30 PM		
Time	Agent Name	LoginID	Exception	Time Limit	Threshold
08:47AM	Klein, Cal	5641	Time on inbound ACD call (max)	300	2
09:32AM	Birkby, Emma	5555	Time available	300	1
10:16AM	Birkby, Emma	5555	Time on inbound ACD call (min)	10	3
11:35AM	Nguyen, Jenny	5234	Time available	300	1
01:04PM	Klein, Cal	5641	Time on inbound ACD call (max)	300	2

Figure 8-10. Agent Exception Historical Report Example

Table 8-7. Historical Agent Exceptions Report Description

Field	Description
Split	The name or number of the split in which the exception occurred.
ACD	The name or number of the ACD in which the exception occurred.
Date	The date all the exceptions in the report occurred.
Printed	The date and time the report was printed
Time	The time the exception occurred for the agent.
Agent Name	The name of the agent or login ID (if the name has not been administered) that had the exception.
Login ID	The login ID of the agent that had the exception.
Exception	The type of exception that occurred.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field on the Administration: Agent Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Agent Exceptions window.

Split Exceptions Historical Report

Purpose

This report shows the time and type of exception that occurred in your splits. Each different exception will have an entry in the report, and you can select as many exceptions as you want to appear in the report.

Things to Know Before You Start

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 split 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 get exception reports for approximately the last 10 days.

Prerequisite System Administration

- You must have **read** permission for the Exceptions subsystem and **read** permission for the particular split(s) in the report.
- To get data for a split exception, checking for exceptions (on the Split 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.

Split Exceptions Input Window

You must fill out the Split Exceptions Input window to order an historical Split Exceptions Report.

The screenshot shows a terminal window titled "Call Management System" with the date and time "04/13/92 12:30 PM" and "Windows: 1 of 6". The main content area is titled "Exceptions: Historical Reports: Split Exceptions Input" with a user identifier "acd1" in the top right. Below the title bar, there are input fields for "Date:" and "Split(s):". To the right of these fields is a small table with two rows: "Run" and "Set", and two columns: "dest" and an unlabeled column. Below the input fields, there is a section "Order by (Select one):" with two options: "<x> Time" and "< > Split". Below this is a section "Exceptions (Select any you wish):" with a list of six items, each preceded by a checked checkbox: "[x] Time call has waited in queue", "[x] Number calls waiting", "[x] Number calls abandoned", "[x] Average speed of answer", "[x] Number intraflowed-out calls", and "[x] Number intraflowed-out calls". At the bottom of the window, it says "Destination is terminal" and a small "v" icon is in the bottom right corner.

```
04/13/92 12:30 PM    Call Management System    Windows: 1 of 6

Exceptions: Historical Reports: Split Exceptions Input    acd1
Date: _____    Run
Split(s): _____    Set dest

Order by (Select one):
<x> Time
< > Split

Exceptions (Select any you wish):
[x] Time call has waited in queue
[x] Number calls waiting
[x] Number calls abandoned
[x] Average speed of answer
[x] Number intraflowed-out calls
[x] Number intraflowed-out calls

Destination is terminal    v
```

Figure 8-11. Split Exceptions Input Window Example

Field/Action List Usage

Date, Split(s), Order by (Select one)

To get a report, you must complete the Date, Splits, and Order by fields, and you should select at least one Exceptions type. If you do not select at least one exception, you will receive a blank report.

Field Descriptions

Date:

Enter the date you want the report.

Type the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.

Split(s):

Enter the Split name(s) or number(s) for which you want a report. If you want a report for all available splits, leave this field blank or fill in this field to restrict the report to certain splits.

Order by (Select one):

Type an x in either the **Time** or **Split** field to determine how the exceptions data for each day is sorted.

If you select **Time**, exceptions data will be listed by the time exceptions occurred. If you select **Split**, exceptions data will be listed by split number or name, such that all exceptions data for the lowest-numbered split will be listed first.

Exceptions

Type an x in the field for each exception type you want to include in the report. Type a blank next to each exception type you **do not** want in the report.

⇒ NOTE:

This window scrolls automatically when you move the cursor to fields not currently visible.

Split Exceptions Historical Report

See Table 8-8, "Split Exceptions Report Description" for a description of each split exception report item.

Split Exceptions

ACD: 1

Printed: 4/01/92 09:30 PM

Date: 3/31/92

Time	Split	Exception	Time Limit	Threshold
09:16AM	Catalog Sales	Number calls waiting		20
09:24AM	Catalog Sales	Average speed of answer	10	0
10:02AM	Customer Service	Number calls waiting		10
10:04PM	Customer Service	Number calls waiting		10
11:35AM	Catalog Sales	Number calls abandoned		15

Figure 8-12. Split Exceptions Historical Report Example

Table 8-8. Historical Split Exceptions Report Description

Field	Description
ACD	The name or number of the ACD in which the exception occurred.
Date	The date all the exceptions in the report occurred.
Printed	The date and time the report was printed.
Time	The time the exception occurred for the split.
Split	The name or number of the split that had the exception.
Exception	The type of exception that occurred.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field as specified on the Administration: Split Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Split Exceptions window.

Trunk Group Historical Report

Purpose

This report shows the time and type of exception that occurred in your trunks and trunk groups. Each type of exception has an entry in the report, and you can select as many types of exceptions as you want to appear in the report.

Things to Know Before You Start

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 trunk group 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 get exception reports for approximately the last 10 days.

Prerequisite System Administration

- You must have **read** permission for the Exceptions subsystem and **read** permission for the particular trunk group(s) in the report.
- 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.

Trunk Group Input Window

You must fill in the Trunk Group Exceptions Input window to order an historical Trunk Group Exceptions Report.

The screenshot shows a window titled "04/13/92 12:30 PM Call Management System" with "Windows: 1 of 6". The main content area is titled "Exceptions: Historical Reports: Trunk Group Exceptions Input" and "acd1". It contains several input fields and a list of exceptions. The "Date:" field is empty. The "Trunk group(s):" field is empty. The "Order by (Select one):" field has three options: "<x> Time", "< > Trunk group", and "< > Trunk location". The "Exceptions (Select any you wish):" field has six options, all of which are selected with "[x]": "Time trunk in use (min)", "Time trunk in use (max)", "Total time trunks maintenance busy", "Length of time all trunks busy", "Number trunk failures in group", and "Number trunks in use". The "Number trunks maintenance busy" option is not selected. There are "Run", "Set", and "dest" buttons. The "Destination is terminal" text is at the bottom left, and a "V" icon is at the bottom right.

Exceptions: Historical Reports: Trunk Group Exceptions Input		acd1
Date: _____		Run
Trunk group(s): _____		Set dest
Order by (Select one):		
<x> Time		
< > Trunk group		
< > Trunk location		
Exceptions (Select any you wish):		
☒ Time trunk in use (min)		
☒ Time trunk in use (max)		
☒ Total time trunks maintenance busy		
☒ Length of time all trunks busy		
☒ Number trunk failures in group		
☒ Number trunks in use		
☐ Number trunks maintenance busy		
Destination is terminal		V

Figure 8-13. Trunk Group Input Window Example

Field/Action List Usage

Date, Trunk group(s), Order by (Select one)

To get a report, you must complete the Date, Trunk groups, and Order by fields, and you should select at least one Exceptions type. If you do not select at least one exception, your report will be blank.

Field Descriptions

Date:

Enter the date for which you want the report.

You can enter the date in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.

Trunk group(s):

Enter the trunk group name(s) or number(s) for which you want a report. If you want a report for all available trunk groups, leave this field blank, or fill in this field to restrict the report to certain trunk groups.

Order by (Select one):

Enter an x in either the **Time**, **Trunk group**, or Trunk location field to determine how the exceptions data is sorted for the report.

If you select **Time**, exceptions data will be listed by the time exceptions occurred. If you select **Trunk group** or Trunk location, exceptions data will be listed by trunk group or location number, such that all exceptions data for the lowest-numbered trunk group or location will be listed first.

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 next to each exception type you **do not** want in the report.

⇒ NOTE:

This window scrolls automatically when you move the cursor to fields not currently visible.

Trunk Group Historical Report

See Table 8-9, “Historical Trunk Group Exceptions Report,” for a description of each trunk group report exception item.

Trunk and Trunk Group Exceptions

ACD: 1

Printed: 4/02/92 09:30 PM

Date: 3/31/92

Time	Trunk Group	Exception	Time Limit	Threshold	Trunk	Agent	LoginID
09:16AM	Catalog Sales	Audio difficulty		0	811811202	Birkby, Emma	5555
09:24AM	Customer Service	Trunk time in use (min)	2	10	811811191		
10:02AM	Customer Service	Time all trunks busy	60	2			
10:04AM	Customer Service	Number trunks in use		20			
11:35AM	Catalog Sales	Audio difficulty		0	811811202	Klein, Cal	5641

Figure 8-14. Trunk Group Historical Report Example

Table 8-9. Historical Trunk Group Exceptions Report Description

Field	Description
ACD	The name or number of the ACD in which the exception occurred.
Date	The date all the exceptions in the report occurred.
Printed	The date and time the report was printed.
Time	The time the exception occurred for the trunk.
Trunk Group	The name or number of the trunk group that had the exception.
Exception	The type of exception that occurred.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field in the Administration: Trunk Group Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Trunk Group Exceptions window.
Trunk	The trunk number that had the exception.
Agent	The name of the agent who logged audio difficulty.
Login ID	The login ID of the agent who reported the audio difficulty.

VDN Exceptions Historical Report

⇒ NOTE:

If you do not have the Vectoring feature, the VDN Exceptions Historical report will **not** be available.

Purpose

- The VDN Exceptions Historical Report (Figure 8-16) 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.
- Use the VDN Exceptions Input window (Figure 8-15) to run a VDN Exceptions Historical report.

Things to Know Before You Start

- 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 VDN 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 may be able to get exception reports for the last 10 days approximately.
- 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 **read** permission for the Exceptions subsystem and **read** permission for the particular VDN(s) in the report.
- To get data for an exception, checking for VDN exceptions (on the VDN Exceptions Administration window) must have been turned on for to the time period of the report **and** exceptions must have occurred for the active exception types.

VDN Exceptions Input Window

You must fill in the VDN Exceptions Input window to order an historical VDN Exceptions Report.

The screenshot shows a terminal window titled "Call Management System" with a status bar at the top displaying "04/13/92 12:30 PM" and "Windows: 1 of 6". The main content area is titled "Exceptions: Historical Reports: VDN Exceptions Input" and contains the following text:

acdl
Date: -1
VDN(s): 2050-2055;sales-west;3044
Order by (Select one):
 <x> Time
 < > VDN
 < > Vector
Exceptions (Select any you wish):
 [x] Time in vector (max)
 [x] Time at agent (min)
 [x] Time at agent (max)
 [x] Number calls abandoned while in vector
 [x] Number calls forced busy
 [x] Number calls disconnected
Destination is terminal

On the right side of the input area, there is a small box with the text "Run Set dest". A small "v" icon is located at the bottom right corner of the main input area.

Figure 8-15. VDN Exceptions Input Window

Field/Action List Usage

Date, VDN(s), Order by (Select one)

To get a report, you must complete the Date, VDN(s), and Order by fields, and you must select at least one Exceptions type.

Field Descriptions

Date:

Enter the date for which you want the report.

You can 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.

Order by:

Enter an x in either the **Time** or **VDN** field to determine how the exceptions data for each day is sorted.

If you select **Time**, exceptions data will be listed by the time exceptions occurred. If you select **VDN**, exceptions data will be listed by VDN number, such that all exceptions data for the lowest-numbered VDN will be listed first.

Exceptions:

Enter an x in the field for each exception type you want to include in the report. Enter a blank, if necessary, next to each exception type you **do not** want in the report.

⇒ NOTE:

Some exceptions options will not be visible in the window when the window first appears. However, the window will scroll automatically to reveal the undisplayed options if you move the cursor to the bottom of the window and continue to press **TAB**.

VDN Exceptions Historical Report

Description

VDN Exceptions

ACD: burbank
Date: 04/09/92

Printed: 04/10/92 04:35 PM

Time	VDN	Vector	Exception	Time Limit	Threshold
09:16AM	Catalog Sales	Weekday Sales	Number calls abandoned in vector		20
09:24AM	Catalog Sales	Weekday Sales	Calls in ACD split queue		10
10:02PM	Catalog Sales	Off-hours Sales	Calls disconnected		50

Figure 8-16. VDN Exceptions Historical Report

Table 8-10. VDN Exceptions Report Description

Field	Description
ACD	The name or number of the ACD in which the exception occurred.
Printed	Date and time the report was printed.
Date	The date on which the exception occurred.
Time	The time at which the exception occurred.
VDN	The VDN name or number that had the exception.
Vector	The vector name or number that had the exception.
Exception	The type of exception that occurred. See Table 8-5, "Definition of VDN Exception Types" for a description of each of VDN exception type.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field on the Administration: VDN Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: VDN Exceptions window.

Vector Historical Exceptions Report

⇒ NOTE:

If you do not have the Vectoring feature, the Vector Exceptions Historical report will **not** be available.

Purpose

The Vector Exceptions Historical Report (Figure 8-18) 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.

Use the Vector Exceptions Input window (Figure 8-17) to run a Vector Exceptions Historical report.

Things to Know Before You Start

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 vector 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 may be able to get exception reports for the last 10 days approximately.

Prerequisite System Administration

- You must have **read** permission for the Exceptions subsystem and **read** permission for the particular vector(s) in the report.
- To get data for an exception, checking for vector exceptions (on the Vector Exceptions Administration window) must have been turned on for to the time period of the report **and** exceptions must have occurred for the active exception types.

Vector Exceptions Input Window

You must fill in the Vector Exceptions Input window to order an historical Vector Exceptions Report.

04/13/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Historical Reports: Vector Exceptions Input acd1

Date: -1

Vectors: debitcard-west

Order by (Select one):
<x> Time
< > Vector

Exceptions (Select any you wish):

- ☒ Time in vector (max)
- ☒ Number calls abandoned while in vector
- ☒ Number calls forced busy
- ☒ Number calls disconnected
- ☒ Number calls in an ACD split queue
- ☒ Number unsuccessful lookahead interflow attempts

Destination is terminal

Run
Set dest

Figure 8-17. Vector Exceptions Input Window

Field/Action List Usage

Date, Vector, Order by (Select one)

To get a report, you must complete the Date, Vector, and Order by fields, and you must select at least one Exceptions type.

Field Descriptions

Date:

Enter the date for which you want the report.

You can 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.

Order by (Select one):

Enter an **x** in either the **Time** or **Vector** field to determine how the exceptions data for each day is sorted.

If you select **Time**, exceptions data will be listed by the time exceptions occurred. If you select **Vector**, exceptions data will be listed by vector number, such that, all exceptions data for the lowest-numbered vector will be listed first.

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 next to each exception type you **do not** want in the report.

⇒ NOTE:

Some exceptions options will not be visible in the window when the window first appears. However, the window will scroll automatically to reveal the undisplayed options if you move the cursor to the bottom of the window and continue to press **TAB**.

Vector Exceptions Report Description

Vector Exceptions				
ACD: burbank			Printed: 04/10/92 04:35 PM	
Date: 04/09/92				
Time	Vector	Exception	Time Limit	Threshold
09:16AM	Weekday Sales	Number calls abandoned in vector		20
09:24AM	Weekday Sales	Calls in ACD split queue		10
10:02AM	Weekday Cust Serv	Calls forced busy		5

Figure 8-18. Vector Exceptions Report

Table 8-11. Vector Exceptions Report Description

ACD	The name or number of the ACD in which the exception occurred.
Date	The date on which the exception occurred.
Time	The time at which the exception occurred.
Vector	The vector name or number that had the exception.
Exception	The type of exception that occurred. See Table 8-6, "Definition of Vector Exception Types," for a description of each vector exception type.
Time Limit	The length of time, in seconds, that one occurrence of an exception type must last in order for CMS to count that occurrence against the occurrence threshold. If the exception type is a min time exception type, an occurrence is counted against the occurrence threshold only if the time does not reach the number of seconds specified in the Time Limit field. If the exception type is a max time exception type, an occurrence is counted against the occurrence threshold only if the time exceeds the number of seconds specified in the Time Limit field on the Administration: Vector Exceptions window.
Threshold	The number of occurrences above which an exception is recorded. The occurrence threshold is specified on the Administration: Vector Exceptions window.

Malicious Call Trace Historical Report

Purpose

This report gives you specific information on malicious call occurrences like the date and time the call occurred, the agent and split that received the call, and even where the call originated from if you have the Automatic Number Identification/Station Number Identification network feature with a Generic 2 switch and Generic 3r switch.

Prerequisite System Administration

- You must have **read** permission for the Exceptions subsystem to see this report.
- You must have exception permission for the appropriate split to be notified of a malicious call exception.

Malicious Call Trace Input Window

You must fill in the Malicious Call Trace Input window to order an historical report on malicious call occurrences.

09/17/92 12:30 PM Call Management System Windows: 1 of 6

Exceptions: Historical Reports: Malicious Call Trace Input acd1

Dates: 04/12/92-04/16/92 Run..... Set dest

Destination is pr1

Figure 8-19. Malicious Call Trace Input Window Example

Field Descriptions

Dates: (Required field)

Enter the dates you want the report to cover.

You can enter the dates in an MM/DD/YY format or as a relative day such as 0, -1, -7, etc.

Malicious Call Trace Exceptions Report

See Table 8-12, “Malicious Call Trace Exceptions Report Description,” for a description of each report item.

Malicious Call Trace Report								
ACD: 1			Printed: 3/31/92 09:30 PM					
Date	Time	Split	Agent	LoginID	Trunk group	Trunk	VDN	ANI/SID
03/13/92	09:32AM	Customer service	Ellman, Kay	5555	Customer service	811202	5882	2015552434
03/15/92	11:12PM	Sales	Smith, Jack	5432	Sales	821181	5885	2015552434

Figure 8-20. Malicious Call Trace Exceptions Report Example

Table 8-12. Malicious Call Trace Exceptions Report Description

Field	Description
ACD	The name or number of the ACD in which the malicious call occurred.
Printed	The date and time the report was printed.
Date	The date the malicious call in the report occurred.
Time	The time the malicious call occurred.
Split	Name of the split that carried the malicious call.
Agent	The name of the agent that received the malicious call.
Login ID	The login ID of the agent.
Trunk Group	The name of the trunk group that received the malicious call.
Trunk	The trunk number that carried the malicious call.
VDN	The VDN number that carried the malicious call.
ANI/SID	For Generic 2 only, the ANI/SID number that the call originated from.

Data Collection Historical Report

Purpose

This report shows any event that affects data collection like starting or stopping data collection, resetting the clock, session (link) down, etc.

Prerequisite System Administration

- You must have **read** permission for the Exceptions subsystem to view this report.
- You must have exceptions permissions for the ACD to be notified of a link down exception.

Data Collection Input Window

You must fill in the Data Collection Input window to order an historical Data Collection Exceptions Report.

04/13/92 12:30 PM Call Management System Windows: 2 of 6

Exceptions: Historical Reports: Data Collection Input acd1

Dates: 04/12/92

Run
Set dest

Destination is terminal

Figure 8-21. Data Collection Input Window Example

Field Descriptions

Dates: (Required field)

Enter the dates you want the report to cover.

You can enter the dates in an MM/DD format or as a relative day such as 0, -1, -7, etc.

Data Collection Historical Report

See Table 8-13, “Data Collection Exceptions Report Description,” for a description of each report item.

Data Collection Report		
ACD: acd1		Printed: 04/13/92
<u>Date</u>	<u>Time</u>	<u>Event</u>
04/12/92	01:32AM	Data collection busied out.

Figure 8-22. Data Collection Historical Report Example

Table 8-13. Data Collection Exceptions Report Description

Field	Description
ACD	The name or number of the ACD associated with the data collection.
Printed	The date and time the report was printed.
Date	Date the data collection event occurred.
Time	Time the data collection event occurred.
Event	Any event that affected data collection like: Data collection started. Data collection started - new translations. Data collection turned off. Data collection timed out. Unable to receive data from switch. Data collection clock was reset. Data collection session down. Switch reloaded - agents must log in again.

General Information

From the ACD Administration subsystem (Figure 9-1), you can:

- Move agent extensions between splits.
- 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.
- Generate a report showing trunk members and their equipment locations for a trunk group.
- View trunk group assignments.
- 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.
 - Control intraflow for splits.

- If you have the Vectoring feature, you can also do the following:
 - Move trunk groups from one VDN to another (Generic 2/System 85 only).
 - Define vectors.
 - Run a report that lists, by vector, the trunk groups and VDNs that route calls to vectors.
 - Run a report (Generic 2/System 85 only) that lists, by split, the vectors that queue calls to splits.
 - Set an acceptable service level and service level increments used to track answered and abandoned calls in the VDN Call Profile reports.

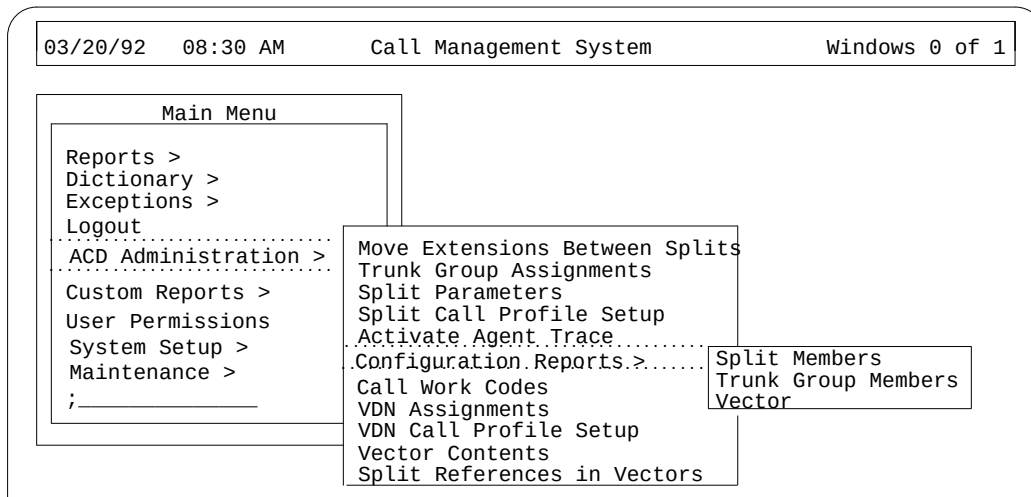


Figure 9-1. ACD Administration Menu

⇒ NOTE:

If you do not have the Vectoring feature, the VDN and Vector menu items will **not** appear.

If you have the Vectoring feature or a Generic 3 PBX, the Split Parameters menu item will **not** appear.

If you have a Generic 3 PBX, the Split References in Vectors menu item will not appear.

Move Agent Extensions Between Splits

Purpose

The Move Agent Extensions Between Splits window allows you to move measured extensions between splits. From this window, you can list the current extension assignments for any split, and then determine which extensions you want to move to different splits.

Things to Know Before You Start

- Agents must be unstaffed in order to move their extensions.



NOTE:

If you have a Generic 2 or System 85 R2V4 with *Automatic Available* splits, agents can remain staffed while moving in these splits only.

- You can move up to 1023 extensions with Generic 2/System 85 and 32 with Generic 3 and Generic 1 in a single move.
- You can move agents to Split 0 if you have a Generic 2 or System 85. 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 will be 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

- You need **write** permission for the ACD Administration subsystem and for all affected splits. See Chapter 10, “User Permissions — Feature Access and Split Access.”
- You need **read** permission for the ACD Administration subsystem to view extension assignments.

Relationships to Other Subsystems

Dictionary

If you enter a Split name in the Split moving from (optional): or Split moving to: field, the name must first be entered in the Dictionary. See Chapter 7, "Dictionary" for more information.

Timetable

You can place the Move Agent Extensions Between Splits window on a timetable. See Chapter 6, "Timetables and Shortcuts," for more information and the procedures.

Move Agent Extensions Window

You must fill out this window to move agent extensions between splits.

03/20/92 08:30 AM Call Management System Windows 1 of 1	
ACD Administration: Move Agent Extensions Between Splits ACD1	
Split moving from (optional): Custserv	Find one
Split moving to*: Sales	List all
Extensions: 2050-2060;2062	Modify...
	Next
*Split moving to not used for Find one or List all	Previous

Figure 9-2. Move Agent Extensions Between Splits Window Example

Field/Action List Usage

Modify

If you have a Generic 1 or Generic 3 switch with extensions that are members of multiple splits, an entry is required in all fields with `Modify`.

If you select `Modify` and the link to the switch is down, an Acknowledge window appears with the link status [for example, waiting session, not collecting data, busy out (switch)].

With `Modify`, you will not be allowed to exit this window until the switch responds to your requested changes. You can go to another window using the `MainMenu` or `Current` SLK. A secondary status window displays the reason(s) for failures. See the “Move Agent Extensions Between Splits Status” section.

The status line will also show a success or failure message with `Modify`. See the Move Agent Extensions Between Splits Status section.

Find one, Next, and Previous

When data is displayed as a result of a `Find one`, `Next`, or `Previous`, only the current split that the agent is in will be displayed in the `Split moving from: field` and the `Split moving to field` will be blank.

Find one and List all

Find one and **List all** use only the `Split moving from: field` for the search.

Field Descriptions

Split moving from (optional):

Enter the split number or name to designate which split you are moving the extensions from.



NOTE:

This field is required **if** the extensions are members of *multiple splits* (multiple splits are available only with a Generic 1 or Generic 3).

Split moving to: (Required entry)

Enter the split number or split name you are moving the extension(s) to.



NOTE:

If you have a Generic 2 or System 85 switch and want to move extensions to Split 0, you must leave this field **blank**.

Extensions:

Enter the extension number(s) to be moved (up to 1023 extensions for Generic 2 and System 85 in a single move, and 32 for Generic 1 and Generic 3 in a single move).

Move Agent Extensions Between Splits Status Window

If the entire move completes successfully, Successful appears on the Move Agent Extensions Between Splits window status line.

If the move either partially or totally **fails**, a secondary status window automatically appears with the extension number(s) and the reason(s) for the failure(s).

Extension	Reason
1234	Extension not in Split 1

Figure 9-3. Move Agent Extensions Between Splits Status Window Example

Trunk Group Assignments

Purpose

From this window, you can view trunk group assignments for all PBXs (switches) and move trunk groups from one split to another for Generic 2 and System 85 switches only.

Things to Know Before You Start

- You will not be allowed to exit this window until the switch responds to your requested changes. You can go to another window using the **MainMenu** or **Current** SLK. A secondary window displays the reason(s) for failures. See the “Trunk Group Assignments Status” section.
- If you have vectoring or call prompting, your window will look different. See the Vectoring/Prompting description for more information.
- The trunk group assignments for Generic 1 can be displayed in this window, but you cannot make any changes to them.
- Split 0 is a dummy split used to assign trunk groups that you do not want directed to any of your measured splits (Generic 2 and System 85 only).
- 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 **write** permission for the ACD Administration subsystem and all affected trunk groups. See Chapter 10, “User Permissions — Feature Access and Trunk Group Access.”
- All affected splits and trunk groups must be measured.
- You must have **read** permission for the ACD Administration subsystem to view trunk group assignments.
- If you are using trunk group names, the names must first be entered in the Dictionary subsystem. See Chapter 7, “Dictionary,” for more information.

Relationships to Other Subsystems

Timetable

The Trunk Group Assignments window can be placed on a timetable. See Chapter 6, “Timetables and Shortcuts” for more information and the procedures.

Trunk Group Assignments Window

You must complete this window to move trunk groups from one split to another for a Generic 2 or System 85 switch.

03/20/92 08:30 AM Call Management System Windows 1 of 1	
ACD Administration: Trunk Group Assign ACD1	
Trunk Groups: _____	Find one List all Modify Next Previous
Split: _____	

Figure 9-4. Trunk Group Assignment Window Example

Field/Action List Usage

Modify

If you select **Modify** and the link to the switch is down, an Acknowledge window appears with the link status [for example, waiting session, not collecting data, busy out (switch)].

The status line will also show a success or failure message with **Modify**. See the Trunk Group Assignment Status section.

Field Descriptions

Trunk Groups:

Enter the trunk group name(s) or number(s) that you are modifying or searching for. See on-line help for the valid numeric ranges for your particular switch.

Split:

Enter the split name or number to which you are moving the trunk group(s). See on-line help for the valid numeric ranges for your particular switch.

Trunk Group Assignment Status Window

If the entire move successfully completes, Successful appears on the Trunk Group Assignment window status line.

If the move either partially or totally **fails**, a secondary status window automatically appears with the trunk group number(s) and the reason(s) for the failure(s).

03/20/92 08:30 AM Call Management System Windows 1 of 1

ACD Administration: Trunk Group Assign xxxxxx

Trunk Groups: _____

Split: _____

Find one
List all
Modify...
Next
Previous

ACD Admin.: Trunk Group Assign Status xxxxxxxxxxxx

The following trunk groups did not move because:

Trunk Group	Reason

Figure 9-5. Trunk Group Assignment Status Window (Generic 2/System 85 Only)

Trunk Group Assignments (Generic 2/System 85 With Vectoring Only)

⇒ **NOTE:**

If you do not have the Vectoring feature, this Trunk Group Assignments window will **not** be available.

Purpose

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.

Use the Trunk Group Assignments window (Figure 9-6) to view and change trunk-group-to-VDN assignments.



NOTE:

You **do not** assign DID trunk groups to VDNs.

Things to Know Before You Start

- You cannot exit this window via the **Exit** SLK 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 initially assigned to VDNs on the PBX using an appropriate PBX administration tool. You can use CMS only to **change** those trunk-group-to-VDN assignments.
- To change trunk-group-to-VDN assignments, you must have **write** permission for the ACD Administration subsystem and any trunk groups and VDNs involved in your changes.
- To view trunk-group-to-VDN assignments, you must have **read** permission for the ACD Administration subsystem and any trunk groups or VDNs you want to view.

Relationships to Other Subsystems

Timetable

You can change trunk group assignments using a timetable. This capability can be particularly useful if you want to make changes during off-hours. See Chapter 6, “Timetables and Shortcuts” for more information and procedures.

Trunk Group Assignments Window

Fill out this window to review or modify trunk-group-to-VDN assignments for a System 85 or Generic 2 switch with vectoring.

03/20/92	08:30 AM	Call Management System	Windows 1 of 1

ACD Administration: Trunk Group Assign		dakota
Trunk Groups: _____		Find one
Vector Directory Number: _____		List all
		Modify
		Next
		Previous

Figure 9-6. Trunk Group Assignments Window (System 85/Generic 2 Vectoring)

Field/Action List Usage

Modify

To **modify** trunk group-to-VDN assignments, complete **both** the Trunk Groups and Vector Directory Number fields.

List all

Selecting **List all** with blank input fields displays a list of trunk groups and the VDNs they are assigned to.

Field Descriptions

Trunk Groups:

Enter the name(s) or number(s) of the trunk group(s) you want to reassign.

Vector Directory Number:

Enter the name or number of the VDN you want to assign the trunk group(s) to.

Trunk Group Assignments (Generic 3 Vectoring Only)

⇒ NOTE:

If you do not have the Vectoring feature, this Trunk Group Assignments window will **not** be available.

Purpose

Automatic-in trunk groups on the Generic 3 are assigned to VDNs or non-vector-controlled splits using the DEFINITY Manager I administration tool.

Use the Trunk Group Assignments window (Figure 9-7) to see what VDNs or non-vector-controlled splits your trunk groups are assigned to.

⇒ NOTE:

You cannot use this window to actually 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 PBX.
- Trunk groups are **never** assigned to vector-controlled splits because vector-controlled splits can receive calls only via vector processing.

Prerequisite System Administration

- Trunk groups must be assigned to VDNs or splits on the PBX using the Manager I administration tool. You can use CMS only to **view** those trunk-group assignments.
- To view trunk-group-to-VDN assignments or trunk group-to-split assignments, you must have **read** permission for the ACD Administration subsystem and any trunk group(s), split(s), and VDN(s) you want to view.

Trunk Group Assignments Window

You must fill out this window to view trunk-group-to-VDN and trunk-group-to-split assignments for Generic 3 with vectoring.

03/20/92 08:30 AM Call Management System Windows 1 of 1									
ACD Administration: Trunk Group Assign dakota <table><tr><td>Trunk Groups: _____</td><td>Find one</td></tr><tr><td>Select one:</td><td>List all</td></tr><tr><td><x> VDN: _____</td><td>Next</td></tr><tr><td>< > Split: _____</td><td>Previous</td></tr></table>		Trunk Groups: _____	Find one	Select one:	List all	<x> VDN: _____	Next	< > Split: _____	Previous
Trunk Groups: _____	Find one								
Select one:	List all								
<x> VDN: _____	Next								
< > Split: _____	Previous								

Figure 9-7. Trunk Group Assignments Window (Generic 3 Vectoring)

Field/Action List Usage

Find one

To **view** specific trunk group assignments, you can complete the Trunk Groups field and either the Vector Directory Number or the Split field.

List all

Selecting List all with blank fields displays a list of trunk groups and the VDNs or splits they are assigned to.

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 name or number 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 name or number of the split whose assigned trunk group(s) you want to view.

Split Parameters (Generic 2/System 85 Nonvectoring)

Purpose

From the Split Parameters window, you will set the delay time for prerecorded announcements and control intraflow for splits for Generic 2 and System 85 switches without the Vectoring feature.

Intraflow helps balance the workload during peak periods by moving callers 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

- **Intraflow** is the redirection of ACD calls from a local split to another local split or other local destination.
- You will not be allowed to exit this window until the switch responds to your requested changes. You can go to another window using the **MainMenu** or **Current** SLK. A secondary status window displays the reason for failures. See the "Split Parameters Status" section.
- 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.
- You need **write** permission for the ACD Administration subsystem. See Chapter 10, "User Permissions — Feature Access."
- You need **read** permission for the ACD Administration subsystem to view split parameters.
- You do **not** need write permission for the affected split to intraflow calls to another split.
- If you are using names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 7, "Dictionary," for more information.

Relationships to Other Subsystems

Timetable

You can place the Split Parameters window on a timetable. See Chapter 6, "Timetables and Shortcuts" for more information and procedures.

Split Parameters Window

You must fill out this window to modify the delay time for prerecorded announcements and control intraflow for splits for a Generic 2 or System 85 switch.

03/20/92 08:30 AM Call Management System Windows 1 of 1

ACD Administration: Split Parameters ACD1

Split : _____ Find one
Queue directory no.: xxxxx Modify
Priority queue directory no.: xxxxx
Delay time for annnc. 1: ____ Delay time for annnc. 2: ____
Inflow threshold: ____ Outflow threshold ____

Intraflow type (Select one - optional):
< > none
<x> conditional
< > all

(Select one for each destination - optional):

Destination 1	Destination 2	Destination 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
< > unassigned	< > unassigned	< > unassigned

Figure 9-8. Split Parameters Window Example

Field/Action List Usage

Modify or Find one

If the link is down when you select Modify or Find one, an Acknowledge window displays the reason the link is down (such as not collecting data, switch busied out, waiting session).

The status line will also show a success or failure message with Modify. See the Split Parameters Status section after the Field Descriptions.

Field Descriptions

Split: (Required entry)

Enter the split name or number 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 announcements play only from the beginning, the length of an announcement plus your delay time may pass before the caller actually 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 **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 9, forwarded calls will not be accepted by this split when the number of calls in queue meets or exceeds 9.
- When a destination split's inflow threshold is met or exceeded, the ACD will try 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 10, the call at the head of the queue will be forwarded when the number of calls in queue meets or exceeds 10.
- If you choose **all** as your intraflow type, you do not need to enter an outflow threshold for the split, since all calls will be intraflowed regardless of split queue conditions.

Intraflow type (Select only one - optional):

Enter the type of intraflow for this split.

< > none

No calls will be forwarded; all calls will remain in the queue. If you select **none**, a destination is not required.

< > conditional

Calls will be forwarded according to outflow thresholds.

⇒ NOTE:

If you select **conditional**, the destination must be set on the switch. If the destination has not been set on the switch, you will need to select a destination in this window.

< > all

All calls will be forwarded.

This is an unconditional type of intraflow and is most useful at times such as weekends or evenings when no one is staffing the split. If all of a split's calls are intraflowed and you specify more than one destination, the ACD tries to send each call to the first destination checking the inflow threshold, then the second, and finally the third.

(Select one for each destination - optional):

Destination 1, 2, or 3

Select one of the following for each intraflow destination. You can specify up to three forwarding destinations for each split.

⇒ NOTE:

Do not specify an attendant or CAS attendant as the destination of unconditionally (**all**) intraflowed calls, *except as the last destination*. If the first destination is one of these, calls will always be accepted and no calls will 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 name or number that will receive this split's intraflowed calls.

< > ext., no.

Enter a valid extension number in your switch that will receive this split's intraflowed calls.

< > prior. split

Enter a measured split number or name that has a Priority Queue Directory Number (PQDN) that will receive this split's intraflowed calls.

With this selection, intraflowed calls will get priority over other calls queued to this split.

< > CAS attendant

Intraflowed calls will go to the CAS attendant.

< > attendant

Intraflowed calls will go to the attendant.

< > unassigned

No intraflow destination.

If you specify more than one destination, the ACD will first try 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 will attempt to forward the call to the second destination, and then the third. If no forwarding conditions are met, the call remains queued to the original split.

Split Parameters Status Window

If the entire modify completes successfully, Successful appears on the Split Parameters status line.

If the modify **fails** either partially or totally, a secondary status window automatically appears with the field that failed and the reason for the failure.

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ACD Administration: Split Parameters		ACD1
Split : _____ Queue directory no.: xxxxx Priority queue directory no.: xxxxx Delay time for annnc. 1: _____ Delay time for annnc. 2: _____ Inflow threshold: _____ Outflow threshold _____ Intraflow type (Select only one - optional): < > none <x> conditional < > all (Select only one for each destination - optional): Destination 1 Destination 2 Destination 3 <x> split, split _____ <x> split, split _____ <x> split, split _____ < > ext., no. _____ < > ext., no. _____ < > ext., no. _____	Find one Modify	

ACD Admin.: Split Parameters Status	
The following fields were not changed because of a failure:	
Field:	Reason

Figure 9-9. Split Parameters Status Window Example

Split Call Profile Setup

Purpose

The Split Call Profile Setup window allows you 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 each split in this window. You can then use the Split Call Profile report to see how many calls were either answered or abandoned within each increment.

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. CMS deletes the split call profile data already collected for that interval and only keeps the split call profile data that occurred in that interval after the change. Then CMS tries to combine the split call profile data gathered both before and after the change into a single daily record of split call profile data. As a result, some data is 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 Call Profile report will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 1, 5, 7, 10 for the date of the change.

To avoid misleading split 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.
 - If you do not administer this window, zero (0) seconds will be used for all service level increments (therefore, all calls will appear in the first increment on the Split 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

- You need **write** permission for the ACD Administration subsystem and for all affected splits. See Chapter 10, "User Permissions — Feature Access and Split Access."
- You need **read** permission for the ACD Administration subsystem to view split call profiles.
- If you are using names for splits, the names must first be entered in the Dictionary subsystem. See Chapter 7, "Dictionary," for more information.

Relationships to Other Subsystems

Reports

CMS counts the calls that are either answered or abandoned within each increment and then displays the totals on the Split Call Profile report. Therefore, what you enter here affects what you see on the Split Call Profile reports (real-time and historical).

Timetable

You can place the Split Call Profile Setup window on a timetable. See Chapter 6, "Timetables and Shortcuts" for more information and procedures.

Split Call Profile Setup Window

You must fill out this window to set your acceptable service level for calls to wait in queue before being answered and to define the service level increments for splits.

03/20/92 08:30 AM Call Management System Windows 1 of 1

ACD Administration: Split Call Profile Setup ACD1

Splits: _____

Acceptable service level: _____

Service level increments (seconds) :

Inc 1	Inc 2	Inc 3	Inc 4	Inc 5
0 to _____	to _____	to _____	to _____	to _____
Inc 6	Inc 7	Inc 8	Inc 9	Inc 10
to _____	to _____	to _____	to _____	And Above

Add
Delete
Find one
List all
Modify
Next
Previous

Figure 9-10. Split Call Profile Setup Window Example

Field Description

Splits:

Enter the split number(s) or name(s) 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 or the seconds of wait time.

Each of the nine increments can vary in length (for example, 0 to 15 to 20 to 26 to 38 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

From this window, you can start CMS tracing agent activities. These activities include all state changes by an agent until the trace is turned off.

Things to Know Before You Start

- You can activate traces for a maximum of 25 agents at any one time.
- The agent trace file rolls over when the number of records reaches your allocated number. Old records will be overwritten by new records. You do not have to delete agent trace records. If you want to keep records of old agent traces, you should print them.
- 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 activate or deactivate agent traces. See Chapter 11, “System Setup — Data Collection,” for more information.
- You need to specify what agent data and how much agent data will be stored for use in historical reports before turning on an agent trace. See Chapter 11, “System Setup — Agent Trace Record Contents,” for more information.
- You need **write** permission for the ACD Administration subsystem. See Chapter 10, “User Permissions — Feature Access,” for more information.
- You need **read** permission for the ACD Administration subsystem to view agents being traced.

Relationships to Other Subsystems

Historical Reports

You must start an agent trace before you can obtain 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 5, "Historical Reports," for more information on the Agent Trace Report.

Timetable

You can schedule the Activate Agent Trace window on a timetable. See Chapter 6, "Timetables and Shortcuts," for more information and procedures.

Activate Agent Trace Window

You must fill out this window to start or stop CMS tracing agent activities.

03/20/92	08:30 AM	Call Management System	Windows 1 of 1

ACD Administration: Activate Agent Trace		ACD1
Agent name(s) or logid(s):	_____	Find one
Agent trace (Select one):	_____	List all
<_> On		Modify
<X> Off		Next
		Previous

Figure 9-11. Activate Agent Trace Window Example

Field/Action List Usage

Modify

The Agent names or logids: field requires an entry with Modify.

You must select Modify to start or stop an agent trace.

List all

With List all if you leave the fields blank, the list will include **all** agents in the ACD and their tracing status.

Field Descriptions

Agent name(s) or logid(s):

Enter the agent name(s) or login ID(s).

Agent trace (Select one): (Required entry)

Enter an "x" next to **On** or **Off** to start/stop a trace. **Off** is the default value.

⇒ NOTE:

Turning an agent trace off does **not** delete the records for that agent. Agent trace records are overwritten automatically when the trace file has filled up.

Split Members Configuration

Purpose

From this window you can generate 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

- You need **read** permission for the ACD Administration subsystem and for all affected splits.
- If you are using names for splits, the name must first be entered in the Dictionary subsystem. See Chapter 7, “Dictionary,” for more information.

Relationships to Other Subsystems

Timetable

You can schedule the Split Members Configuration Input window and Report on a timetable. See Chapter 6, “Timetables and Shortcuts” for more information and the procedures.

Split Members Input Window

You must fill out this window to run the report.

03/20/92	08:30 AM	Call Management System	Windows 1 of 1

ACD Admin: Configuration Reports: Split Members Input		ACD1
Splits: <u>Custser;Sales;4-7</u>		Run
Destination is terminal		Set dest

Figure 9-12. Split Members Configuration Input Window Example

Field/Action List Usage

Run or Set Dest

Run generates the report. Run uses your Set Dest destination.

You change your Run destination from Set Dest . Your destination can be a terminal, printer, or file. See Chapter 2, "User Basics," for procedures.

Field Descriptions

Splits:

Enter the split name(s) or number(s). See on-line help for the valid numeric ranges for your particular switch.

Destination is to terminal (Display Only)

This is your Set Dest selection. If you had selected the printer or a file, the status line would reflect that choice. See Chapter 2, "User Basics," for the procedures on Run and Set Dest.

Split Members Configuration Report

The Split Members Configuration report 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 will display the split number. If the split does not have any extensions assigned to it, the Extension field will be blank.

With Generic 2 and System 85, Split 0 will list the extensions in Split 0 as well as the extensions in other splits.

```
Split Members Configuration
Printed 3/12/92 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 9-13. Split Members Configuration Report Example

Trunk Group Members Configuration

Purpose

From this window, you can generate a report showing trunk group members and their equipment locations for a particular trunk group. This report will help 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.
- If you are using names for trunk groups, the names must first be entered in the Dictionary subsystem. See Chapter 7, "Dictionary," for more information.

Relationships to Other Subsystems

Timetable

You can schedule the Trunk Group Members Input window and report on a timetable. See Chapter 6, "Timetables and Shortcuts" for more information and the procedures.

Trunk Group Members Input Window

You must fill out this window to run the Trunk Group Configuration report.

03/20/92 08:30 AM Call Management System Windows 1 of 1

ACD Admin: Configuration Report: Trunk Group Input ACD1

Trunk Groups:1-4;7;20-33 Run..... Set dest

Destination is terminal

Figure 9-14. Trunk Group Members Configuration Input Window Example

Field/Action List Usage

Run and Set dest

Run generates the report. Run uses your Set dest destination.

You change your Run destination from Set dest. Your destination can be a terminal, printer, or file.

Field Descriptions

Trunk Groups:

Enter the trunk group number(s) or name(s).

- The report will display 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.

Destination is terminal (Display only)

This is your Set Dest selection. If you had selected the printer option, the status line would reflect that choice. See Chapter 2, "User Basics," for the procedures on Run and Set Dest.

Trunk Group Configuration Report

The Trunk Group Configuration report 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 will display the trunk group number. If the trunk does not have any equipment location assigned to it, the Equipment Location field will be blank.

Trunk Group Configuration

Printed 03/20/92 9:34 AM

<u>Trunk Group</u>	<u>Trunk Group Name</u>	<u>Equipment Location</u>
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 9-15. Trunk Group Configuration Report Example

Vector Configuration

NOTE:

If you do not have the Vectoring feature, this window will **not** be available.

Purpose

The Vector Configuration Report (Figure 9-17) lists the trunk groups and VDNs that carry calls to a specified vector.

To run a Vector Configuration report, you must complete the Vector Configuration Report Input window (Figure 9-16).

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.
- On Generic 2.2 or Generic 3, a “go to 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 in this way will 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) will be 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 to print on a timetable. See Chapter 6, “Timetables and Shortcuts” for more information and the procedures.

Vector Configuration Input Window

You must fill out this window to run the Vector Configuration Report.

03/20/92 08:30 AM Call Management System Windows 1 of 1

ACD Administration: Configuration Report: Vector Input dakota

Vectors: 1;2

Run
Set dest

Figure 9-16. Vector Configuration Input Window

Field Descriptions

Vectors:

Enter the name(s) or number(s) of one or more vectors for which you want to see the assigned VDNs and trunk groups.

Vector Configuration Report

The Vector Configuration Report lists selected 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 will be blank. If a vector has no assigned VDNs, the **VDN** and **VDN Name** fields will also be blank.

Although the report lists each vector's VDNs in numerical order, all VDNs that have trunk groups assigned appear first.

Vector Configuration				Printed 03/10/92 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	5	Legal_Vec
50				6	

Figure 9-17. Vector Configuration Report

Call Work Codes

Purpose

From this window, you will assign the call work codes for which CMS will collect data. A call work code is a code you assign to a particular call activity your call center wants to track. This could be certain digits assigned to a sale item, complaints, repeat orders, promotional ads, or even sales made using a credit card. 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 administered in the Dictionary subsystem. It is recommended that you select a fixed number of digits for **all** your call work codes. A fixed number of digits makes it easier when adding, deleting, or even searching for call work codes.
- Call work code 0 is always administered and is used to collect information on unadministered call work codes. You cannot delete call work code 0.
- You are allowed 1999 call work codes per ACD and those codes are specific to that ACD. If you try to administer more codes than you are allocated, the addition will fail and you will receive an acknowledgement.
- See Chapter 2, "User Basics," for the action list procedures, common rules for field entry items, and field editing information.

Prerequisite System Administration

- Because call work codes directly affect the amount of storage space required for disk space, you will need to allocate the number of call work codes to be saved by CMS. See Chapter 11, "System Setup — Data Storage Allocation," for more information.
- You must identify and specify where you want to store call work code data. See Chapter 11, "System Setup — Free Space Allocation," for more information.
- You need **write** permission for the ACD Administration subsystem to add or delete call work codes. See Chapter 10, "User Permissions — Feature Access."
- You need **read** permission for the ACD Administration subsystem to view call work codes.

Relationships to Other Subsystems

Reports

Daily, weekly, and monthly standard historical reports are available for call work codes. See Chapter 5, "Historical Reports — Call Work Codes," for more information.

Dictionary

For a name to appear instead of the numerical code, the name must first be defined and entered in the Dictionary subsystem. A call work code name is limited to nine digits. See Chapter 7, "Dictionary — Call Work Codes," for more information.

Timetable

You can place the Call Work Codes window on a timetable. See Chapter 6, "Timetables and Shortcuts," for more information and procedures.

Call Work Codes Window

You must complete this window to see data in the call work code standard historical reports.

03/20/92	08:30 AM	Call Management System	Windows 1 of 1
ACD Administration: Call Work Codes			ACD1
Number of codes allocated: 1050			Add
Number of codes administered: 50			Delete
Call work codes(s) 10051-10080			Find one
			List all
			Next
			Previous

Figure 9-18. Call Work Codes Window Example

Field Descriptions

Number of codes allocated: (Display only)

This is the total number of call work codes that will be saved in the 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 via this window).

Call work code(s):

Enter the call work code(s) you want the agents to use.



NOTE:

It is recommended that you select a fixed number of digits for **all** your call work codes. A fixed number of digits makes it easier when adding, deleting, or even searching for call work codes.

VDN-to-Vector Assignments

⇒ NOTE:

If you do not have the Vectoring feature, the VDN Assignments window will **not** be available.

Purpose

VDNs, which are initially assigned to vectors on the PBX, provide a software link to vectors. This link is necessary for ACD calls to enter vector processing. A VDN provides a link to a vector in one or more of the following ways:

- The auto-in trunk group(s) assigned to the VDN carry calls to the VDN's assigned vector.
- DID trunk groups carry calls to the VDN's assigned vector when the Central Office passes VDN digits to the PBX.
- The PBX sends internal calls to the VDN's assigned vector when the dialed digits are the VDN.

Use the VDN Assignments window (Figure 9-19) to change the vectors VDNs are assigned to.

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 via the **Exit** SLK 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

- A vector must be defined (with at least one step) before you can assign a VDN to the vector.
- To assign VDNs to a vector, 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.

Relationships to Other Subsystems

Timetable

You can reassign VDNs using a timetable. This capability can be particularly useful if you want to make assignments during off-hours. See Chapter 6, “Timetables and Shortcuts” for more information and the procedures.

VDN Assignments Window

You must fill out this window to assign VDNs to vectors.

The screenshot shows a window titled "Call Management System" with a status bar at the top indicating "03/20/92 08:30 AM" and "Windows 1 of 1". The main content area is titled "ACD Administration: VDN Assignments" and "dakota". It contains two input fields: "VDNs:" and "Vector:". To the right of these fields is a vertical list of actions: "Find one", "List all", "Modify", "Next", and "Previous".

ACD Administration: VDN Assignments dakota	
VDNs: _____	Find one
_____	List all
Vector: _____	Modify
	Next
	Previous

Figure 9-19. VDN Assignments Window

Field/Action List Usage

Modify

To **modify** VDN assignments, you complete the VDNs and Vector fields and select **Modify**. If you leave the Vector field blank and select **Modify**, the VDN will be assigned to Vector 0 (that is, the VDN will not be assigned to any vector).

List all

Selecting **List all** with blank fields displays a list of VDNs and the vectors they are assigned to. If a VDN is not assigned to a vector, the VDN will appear with Vector 0 in the List all window.

Field Descriptions

VDNs :

Enter the number(s) or name(s) of the VDN(s) you want to reassign.

To know what VDNs you can assign, you should first select **List all** with all blanks.

Vector :

Enter the name or number of the vector you want to assign the VDN(s) to.

To know what vectors you can assign VDNs to, you should first select **List all** on the Vector Configuration Report Input window. See the “Vector Configuration” section of this chapter.

VDN Call Profile Setup

⇒ NOTE:

If you do not have the Vectoring feature, the VDN Call Profile Setup window will **not** be available.

Purpose

You set up a VDN call profile to specify service level increments for VDNs. CMS will count the number of calls that are answered, connected to a non-ACD destination, and abandoned within each increment and display them on the VDN Call Profile Reports.

⇒ NOTE:

CMS stores zeroes (0) as default values for the profile increments. Therefore, CMS will not collect or store meaningful VDN call profile report data until you administer the increments for the particular VDN. Instead, a call profile report for a VDN will add up all answered, connected, and abandoned calls and display them in the first increment of the report.

You also set up a VDN call profile to define acceptable service levels (wait time) for VDNs.

Use the VDN Call Profile Setup window (Figure 9-20) to set up a VDN call profile.

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. 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 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 is 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 will show 1, 3, 5, 10, etc. If you change from 1, 3, 5, 10, ... to 1, 5, 7, 9, ..., the report will show 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.
- CMS will always track and record call information for the first VDN the call reaches until the call is answered, connected to a non-ACD destination, or abandoned. If a call is routed to another VDN, either via a “route to” step (Generic 2/System 85) or an “adjunct routing” step (Generic 3), the call profile data will still be collected for the first connected VDN only. (This call data collection differs from that of the Split Call Profile.)

Prerequisite System Administration

- To add or change a VDN call profile, you must have **write** permission for the ACD Administration subsystem and for the affected VDNs.
- To display 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 place VDN Call Profile changes on a timetable.

VDN Call Profile Setup Window

You must fill out this window to define the acceptable service level and service level increments for VDNs.

03/20/92 08:30 AM Call Management System Windows 1 of 1																					
ACD Administration: VDN Call Profiledakota VDNs: _____ Acceptable service level: _____ Generate call records (y/n): n Service level increments (seconds): <table style="width: 100%; border-collapse: collapse;"><tr><td style="text-align: center;">Inc 1</td><td style="text-align: center;">Inc 2</td><td style="text-align: center;">Inc 3</td><td style="text-align: center;">Inc 4</td><td style="text-align: center;">Inc 5</td></tr><tr><td style="text-align: center;">0 to _____</td><td style="text-align: center;">to _____</td><td style="text-align: center;">to _____</td><td style="text-align: center;">to _____</td><td style="text-align: center;">to _____</td></tr><tr><td style="text-align: center;">Inc 6</td><td style="text-align: center;">Inc 7</td><td style="text-align: center;">Inc 8</td><td style="text-align: center;">Inc 9</td><td style="text-align: center;">Inc 10</td></tr><tr><td style="text-align: center;">to _____</td><td style="text-align: center;">to _____</td><td style="text-align: center;">to _____</td><td style="text-align: center;">to _____</td><td style="text-align: center;">And above</td></tr></table> Add Delete Find one List all Modify Next Previous		Inc 1	Inc 2	Inc 3	Inc 4	Inc 5	0 to _____	to _____	to _____	to _____	to _____	Inc 6	Inc 7	Inc 8	Inc 9	Inc 10	to _____	to _____	to _____	to _____	And above
Inc 1	Inc 2	Inc 3	Inc 4	Inc 5																	
0 to _____	to _____	to _____	to _____	to _____																	
Inc 6	Inc 7	Inc 8	Inc 9	Inc 10																	
to _____	to _____	to _____	to _____	And above																	

Figure 9-20. VDN Call Profile Setup Window

Field/Action List Usage

Add

To **add** a VDN call profile, you must 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, change the VDN listed in the **VDNs** field to the desired VDN(s), and select **Add**.

Delete

To **delete** a VDN call profile, you must complete only the **VDNs** field and select **Delete**.

Modify

To **modify** a VDN call profile, use **Find** one to display a profile, change the desired fields, and select **Modify**.

Field Descriptions

VDNs :

Enter the VDN number(s) or name(s) whose profile you want to add, delete, change, or copy.

To know what VDNs you can assign, you should first select **List all** with all blanks on the VDN Assignments window. See “VDN-to-Vector Assignments” in this chapter.

Acceptable service level:

Enter a number of seconds to define the maximum acceptable time for incoming calls on 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.
- CMS will count calls that are either answered, connected to non-ACD destinations, or abandoned within this range and display 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 seconds you enter for each increment must be at least 1 second greater than the seconds of the previous increment. For example, if the previous increment were 25 seconds, you must enter in the current increment at least 26 seconds.
- 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. CMS will count calls that are either answered, connected to a non-ACD destination, or abandoned within each range and display the totals on the VDN Call Profile report.

Vector Contents

⇒ NOTE:

If you do not have the Vectoring feature, the Vector Contents window will **not** be available. Also, the Vector Contents window is available **only** if the current ACD is your real ACD (that is, it is not a pseudo-ACD).

Purpose

You define the contents of a vector by entering vector steps, which consist of call-processing commands and conditions. The PBX will then process calls with these steps when calls are routed to the vector.

Use the Vector Contents window to add, copy, and change steps in a vector.

Things to Know Before You Start

- You can define up to 15 steps in a single vector.
- 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, CMS will automatically display command words and additional input fields that you must complete.
- Use the following keys in the Vector Contents window.

↓	Move to the next field.
↑	Move to the previous field.
TAB	Move to the next field.
SHIFT + TAB	Move to the previous field.
→	Move cursor to the right within a field.
←	Move 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, CMS will automatically replace the blank with a “go to step” command when you select **Modify**. The “go to step” command will send the call to the next step.
 - You may enter vector commands that reference splits to which you have neither read nor write permission.
 - You **cannot** place the Vector Contents window on a timetable.
 - You cannot exit the Vector Contents window via the **Exit** SLK until the PBX responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** SLK.

About Generic 2/System 85

- On Generic 2.2, you can link one vector with another vector via a “go to vector” command. By linking two vectors, you can create a virtual vector of more than 15 steps. Yet, as a call jumps from one vector to another, the original VDN continues to carry the call and permits accurate reports on specific-purpose call traffic.



NOTE:

Generic 2.1 and System 85 do not allow a “go to vector” command.

- On System 85/Generic 2, vectors may not contain Call Prompting commands. See Table 9-1.

About Generic 3

- On Generic 3, you can link one vector with another vector via a “go to vector” command. By linking two vectors, you can create a virtual vector of more than 15 steps. Yet, as a call jumps from one vector to another, the original VDN continues to carry the call and permits accurate reports on specific-purpose call traffic.
- On Generic 3, your vectors may contain Vectoring commands, Prompting commands, or both, depending on which features you have on the PBX. See Tables 9-2 and 9-3.
- On Generic 3, the maximum queue length assigned to a split could affect the “calls queued to split” condition for “go to” and “check backup split” commands. For example, if the maximum queue length administered on the PBX for a split is 20, but your calls queued condition is greater than 20, the condition always fails.

Prerequisite System Administration

- To change anything about a vector's contents, you must have **write** permission for the ACD Administration subsystem and for the specific vector number.
- To view or copy a vector, you must have **read** permission for the specific vector number you are viewing or copying.
- For a vector to process calls, at least one VDN must be assigned to the vector.

On System 85/Generic 2

- On 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 destinations be specified in the Group List. In addition, if any destinations in the Group List are external to the PBX, Automatic Route Selection (ARS) or Automatic Alternate Routing (AAR) feature must be administered on the PBX.
- On 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.

- On System 85/Generic 2, the "announcement" command requires that announcement numbers be assigned to equipment locations of recorded announcement trunks.

On Generic 3

- On 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.
- On Generic 3 with Prompting, at least one TN744 circuit pack (which has eight touch-tone receivers) must be connected to the PBX. Up to ten TN744 circuit packs may be connected.

Vector Contents Window

You must fill out this window to add, copy, or change steps in a vector.

03/20/92	08:30 AM	Call Management System	Windows 1 of 1

ACD Administration: Vector Contents	
ACD: Dayton_____	Add step Del step Find one Modify
Vector: goldcard_____	
Step	
Actions and Conditions	
1 queue to main split 3 priority low	
2 wait time 12 seconds hearing ringback	
3 announcement 5416	
4 wait time 8 seconds hearing music	
5 check backup split 5 priority low if available agents > 0	
6 check backup split 4 priority low if available agents > 0	
7 wait time 998 seconds hearing music	
8 stop	
9	
10	
11	
12	
13	
14	
15	

Figure 9-21. Vector Contents Window

Field/Action List Usage

Modify

To **add** the contents of 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 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**. CMS will create 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**. CMS will delete the command for that step and move 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 of the ACD in which you want to define a vector.

- The default ACD number or name is the current ACD.

Vector:

Enter the number or name of the vector you want to add, delete, copy, or modify.

Steps 1 through 15

Enter a command for a step by typing the first unique letter(s) of the command (for example, g for go to). CMS automatically displays the remaining text for the command, as well as additional input fields you must complete.

- If the input fields require words (for example, ringing), you must enter only the first unique letter(s). CMS then automatically displays the remaining text for the field. This automatic display also occurs for the `if` conditions for the “go to” and “check backup” commands.

⇒ NOTE:

This automatic display does not work for a field in which “none” is an option (for example, the “disconnect” or the “collect digits” command).

The input field for a command word actually contains only the first four letters of the word. These letters are always underlined. To change a command word:

- Overtyping **all** of the first four letters of the word.

OR

- Press CTRL **y** to delete the four letters in the field and then type the first unique letter(s) of the new word.

CMS will automatically change the remaining text and any other input fields in the command to match the word you entered. However, you will have to move the cursor to the remaining fields of the command and enter the appropriate values.

-
- If you type numbers in the input fields (for example, an extension number) and are not at the end of the input field, you may need to press **TAB** or the spacebar to continue.
 - For commands available for steps in a vector, as well as the conditions and valid inputs for those commands, see Table 9-1 for System 85/G2 or Tables 9-2 and 9-3 for G3. For in-depth descriptions of each command and its purpose, see Appendix B, “Call Vectoring and Related Generic 3 Features” or Appendix C, “Call Vectoring and Related System 85/Generic 2 Features” in this document.

The diagram illustrates the structure of the **check backup split** command and its associated sub-commands.

check backup split

check backup split (1-60) **priority** (top, high, med, or low) **if** {

- available agents** > ____ (0-1023)
- staffed agents** > ____ (0-1023)
- calls queued** < ____ (1-99)
- oldest call waiting** < ____ (1-999)

Table 9-1. Vectoring Commands — System 85/Generic 2 (Contd)

<u>busy</u>
<u>route</u> to number <u> </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>announcement</u> <u> </u> ↑↑ (An announcement number 16-99 [S85/G2.1], 1-255 [G2.2])
<u>stop</u>
<u>disconnect</u> after announcement <u> </u> ↑↑ (Optional: none or an announcement number 16-99 [S85/G2.1], 1-255 [G2.2])

Table 9-2. Vectoring Commands — Generic 3

<u>queue</u> to main split ____ priority ____ (1-32 [G3s]) (1-99 [G3i]) (1-255 [G3r]) ↑ (top, high med, or low)	
<u>check</u> backup split ____ priority ____ if (1-32 [G3s]) (1-99 [G3i]) (1-255 [G3r]) ↑ (top, high med, or low)	{ <u>available</u> agents > ____ (0-199 [G3s,G3i]) (0-998 [G3r]) <u>staffed</u> agents > ____ (0-199 [G3s,G3i]) (0-998 [G3r]) <u>calls</u> queued < ____ (1-200 [G3s,G3i]) (1-999 [G3r]) <u>oldest</u> call waiting < ____ (2-998 even numbers only) unconditionally }
<u>wait</u> time ____ seconds hearing ____ (even numbers from 0-998) ↑ (ringback, silence, or music)	
<u>goto</u> { <u>step</u> ____ (1-15) } if { <u>vector</u> ____ ↑ (1-64 [G3s]) (1-256 [G3i]) (1-512 [G3r])	unconditionally <u>available</u> agents in split ____ is ____ (1-32 [G3s]) (< (1-200[G3s,G3i], 1-999[G3r]) (1-99 [G3i]) or >) (0-199[G3s,G3i], 0-998[G3r]) (1-255 [G3r]) <u>staffed</u> agents in split ____ is ____ (1-32 [G3s]) (< (1-200 [G3s,G3i], 1-999 [G3r]) (1-99 [G3i]) or >) (0-199 [G3s,G3i], 0-998 [G3r]) (1-255 [G3r]) <u>calls</u> queued in split ____ is ____ pri ____ (top, (1-32 [G3s]) (< (1-200[G3s,G3i], 1-999[G3r]) high, (1-99 [G3i]) or >) (0-199[G3s,G3i], 0-998[G3r]) med, or (1-255 [G3r]) low) <u>oldest</u> call waiting in split ____ is ____ (1-32 [G3s]) (< (2-998 (1-99 [G3i]) or >) 0-998 even (1-255 [G3r]) numbers only) <u>time</u> of day is ____ to ____ (mon, tue, wed, thu, fri, sat, sun, or all) (hh:mm in military time [19:40] or with am/pm [7:40pm])

<u>busy</u>	
<u>route to number</u> _____	
↑ 1- to 16-digit phone number, which may include ~p, ~s, ~w, or ~m.)	
<u>adjunct routing link extension</u> _____ *	
↑ (1- to 5-digit extension of adjunct port)	
<u>announcement</u> _____ *	
↑ (1- to 5-digit extension)	
<u>messaging split</u> __ for extension _____ *	
(1-32 [G3s]) (1-99 [G3i]) (1-255 [G3r])	↑ (Optional: 1- to 5-digit extension or none [default])
<u>stop</u> *	
<u>disconnect after announcement</u> _____	
↑ (Optional: 1- to 5-digit extension, or none [default])	

* These commands are also used for Call Prompting.

Table 9-3. Prompting Commands — Generic 3

<u>collect</u> digits <u> </u> after announcement <u> </u> (1-16) ↑ (Optional: 1- to 5-digit extension or none)	
<u>route</u> to	{ <u>number</u> <u> </u> ↑ (1- to 16-digit number, which may include ~p, ~s, ~w, or ~m) <u>digits with coverage</u> (y/n) <u> </u> (y or n) if { unconditionally digit equals <u> </u> (0 to 9)
<u>goto</u>	{ <u>step</u> <u> </u> (1-15) <u>vector</u> <u> </u> ↑ (1-64 [G3s) (1-256 [G3i) (1-512 [G3r) if <u>digits equal</u> <u> </u> ↗ (1- to 16-digit number)
<u>adjunct</u> routing link extension <u> </u> * ↑ (1- to 5-digit extension of adjunct port)	
<u>announcement</u> <u> </u> * ↑ (1- to 5-digit extension)	
<u>messaging</u> split <u> </u> for extension <u> </u> * (1-32 [G3s) (1-99 [G3i) (1-255 [G3r) ↗ (Optional: 1- to 5-digit extension or none)	
<u>stop</u> *	

How to Add a New Vector



CAUTION:

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 (via 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 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.*



NOTE:

Do not delete or change the name or number that appears in the **ACD** field.

- 3 Enter, for each desired step, the initial letter(s) of a command, and complete the remaining fields of the command. See Tables 9-1 (for System 85/G2) or 9-2/3 (for G3) for possible values for each command.

*

These commands are also used for Call Vectoring.

-
- 4 Select **Modify** after adding your steps to save the vector on the PBX.

-> A window appears asking you to verify that you want to make the change. After you select **y**, the message, **"Successful"** will appear on the window's status line to indicate that the vector has been added on the PBX. If the PBX does not accept the vector or a step in the vector, **Failed** will appear on the window's status line, and an error message will appear to identify the problem.

How to Copy a Vector

- 1 Select **Vector Contents** from the ACD Administration submenu.

-> The **Vector Contents** window appears with the 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.



NOTE:

Do not delete or change the name or number that appears in the **ACD** field.

- 3 Enter the "copy to" vector name or number in the **Vector** field.

- 4 Add or delete any steps desired.

- 5 Select **Modify**.

-> The message, **"Successful"** appears on the window's status line to indicate that the vector has been copied.

How to Modify 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.

- 2 a. To **change** any commands or conditions, move the cursor to the field you want to change, and press **CTRL y** to erase all characters in the field or **CTRL x** to erase characters from the cursor position to the end of the field. -> *The data in the field disappears.*

Enter the new command, condition, or value in the field.

-> *If you entered a new command or condition, the text/fields associated with that new command or condition will overwrite the old text/fields.*

Complete, if necessary, any additional fields associated with a new command or condition.

- b. To **insert** a command between two existing steps, move the cursor to the second of the two steps and select **Add step**.

-> *A blank step appears above the step on which the cursor was resting. The command the cursor was on, and any following commands step shift down one step.*

After selecting **Add step**, type the desired command in the blank.

-
c. To delete a command, move the cursor to the step that contains the command, and select Del step. 3 Select Modify after making your changes to save the changes.	-> <i>The command is removed and any commands below shift up one step.</i> -> <i>The message, "Successful" appears on the window's status line to indicate that the vector changes have been saved on the PBX. If the PBX does not accept the vector or a step in the vector, Failed will appear on the window's status line, and an error message will appear to identify the problem.</i>

 NOTE:

You cannot insert a command in a vector that already uses all 15 steps. Also, you may need to change step number references in any "go to step" commands when adding/deleting steps.

How to Delete a Vector's Contents

- 1** On a blank Vector Contents window, enter, in the **Vector** field, the vector name or number for which you want to delete the contents.



NOTE:

Do not delete or change the name or number that appears in the **ACD** field.

2 Select Modify. 3 Enter y to delete the vector's contents.	-> <i>A message appears that asks you if you want to delete the vector's contents.</i> -> <i>The contents that previously existed for the vector are deleted.</i>

Split References in Vectors (System 85/Generic 2 Vectoring Only)

NOTE:

If you do not have a System 85/Generic 2 and the Vectoring feature, the Split References in Vectors window will **not** be 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 will be listed even if you do not have read permission for those vectors.

Split References in Vectors Window

You must fill out this window to display vectors that reference a particular split with the “queue to main split” and/or “check backup split” commands.

03/20/92 08:30 AM Call Management System Window 1 of 1

ACD Admin.: Split References in Vectors dakota

Split: sales_____ Run Set dest

Destination is terminal

Figure 9-22. Split References in Vectors Window (System 85/Generic 2 Vectoring)

Field Descriptions

Split:

Enter the number or name of the split whose vector references you want to list.

Split References in Vectors Report

```
Split References in Vectors
Printed: 03/20/92 08:35 PM
Split: sales_____
Vector No.  Vector Name      Main  Backup
122         goldcardsplit1             x      x
```

Figure 9-23. Split References in Vectors Report



General Information

From the User Permissions subsystem (Figure 10-1), you (as CMS administrator) will be able to grant:

- 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 CMS subsystems and certain SLK menu items.
- Split, trunk group, and ACD access permissions.

⇒ NOTE:

If you have purchased the Vectoring feature, you can also assign access permissions to VDNs and vectors.

You are given a CMS administrator login ID at installation which gives you access to the entire CMS system, including read and write permissions for all subsystems and ACDs (real and pseudo-ACDs). However, secondary administrators, such as split supervisors, may require access to only a limited number of subsystems, splits, 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 CMS user will have the CMS default permissions (i.e., **no** access), do not add access permission in the read and write fields. CMS does not actually store records of split, 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.

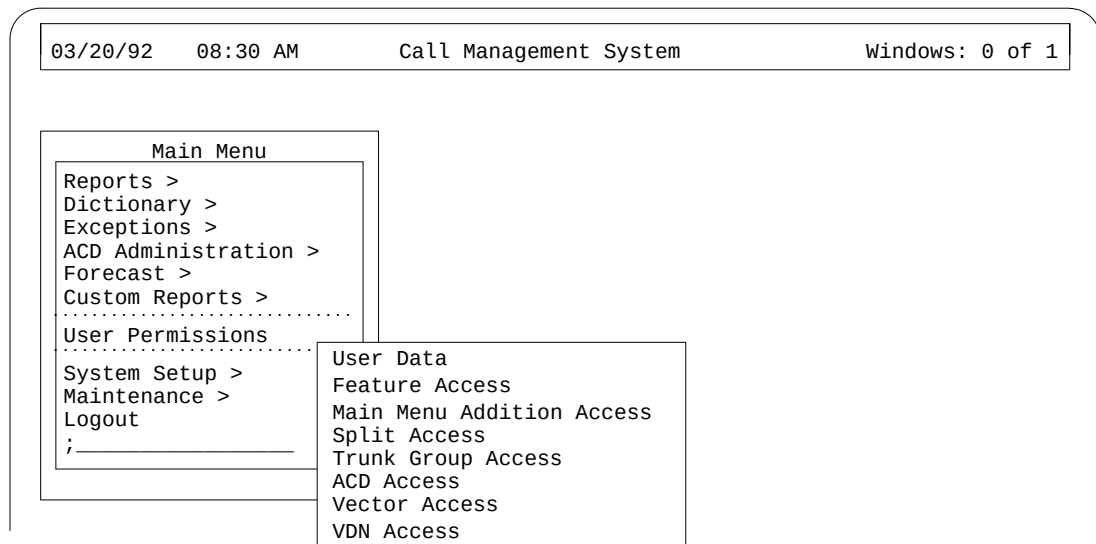


Figure 10-1. User Permissions Menu



NOTE:

If you have not purchased the Vectoring feature, your submenu will not have the Vector Access and VDN Access selections.

Terms

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 Data

Purpose

From the User Data window, you will assign a CMS user a user ID, default printer, specify whether the user is a *normal* user (such as a split supervisor) or an *administrator*, and administer the maximum number of open windows, the minimum refresh rate for real-time reports, and the default ACD the user will have at login.

Things to Know Before You Start

- The user IDs you create become the users' CMS login IDs.
- You must enter the user data information into CMS (in this window) before you can grant feature, split, trunk group, ACD, or Vector/VDN access.
- 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 will be allowed to consume.
- You **should not** allow users to share the same login ID because this quickly consumes UNIX 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.
- 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 CMS printer. See Chapter 12, "Maintenance — Printer Administration," for more information.

Relationships to Other Subsystems

Real-Time Reports

The default minimum refresh rate in the real-time report input windows is 30 seconds plus 15 seconds. Real-time reports can be refreshed or updated from every 3 to every 600 seconds. Before a 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 4 for more information.)

Timetable

The User Data window can be placed on a timetable. See Chapter 6, "Timetables and Shortcuts," for more information and the procedures.

UNIX System

A new user may have an existing UNIX System login ID. This is **not** required. If the user does not have an existing UNIX system login ID, CMS automatically creates one when you add the user here.

User Data Window

To assign user data information, you must complete this window.

User Permissions: User Data	All ACDs
User ID: _____	Add
User Name: _____	Delete
Room number: _____	Find one
Telephone number: _____	List all
Default printer name: _____	Modify
Login type (select only one):	Next
<x> Normal user	Previous
< > Administrator	
Maximum user window count (1-5): 3__	
Minimum refresh rate (seconds): 45__	
Login ACD: 1__	

Figure 10-2. User Data Window Example

Field/Action List Usage

Find one and List all

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** plus **Z** to clear all fields, then select List all from the action list.

Modify

If you Modify the Maximum number of open windows, Minimum refresh rate, or Login ACD, the changes take effect when the user logs out and back in again.

User ID

When deleting, only the User ID field requires an entry.

If you try to add a login ID for a user that already exists in CMS, Already exists will appear on the status line.

If the user is neither a CMS or UNIX System user, CMS adds the user ID both to CMS and to the UNIX system.

User IDs added via the UNIX system will have a login shell of /bin/sh (or whatever was administered). CMS will not change this. New user IDs added to CMS and the UNIX system via CMS will have "cms" as the login shell.

Delete removes the user login ID and user permissions from CMS **and** if the UNIX system ID was added via CMS (/cms/bin) from the UNIX System as well. If the user had a UNIX system login ID prior to the CMS login ID, that UNIX system login ID will not be removed.

If the deleted user has custom reports or timetables, an Acknowledgement 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 will be 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 CMS, all files owned by the deleted user will be removed unless you have previously moved the files to another directory or removed them yourself.
- the timetable will fail if you have not moved or removed the timetables or custom reports owned by the deleted user.

Login ACD

An Acknowledgement will appear 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.

Field Descriptions

User ID:

Enter the UNIX system login identification for the user you are adding, modifying, viewing, or deleting. The User ID must have three to eight alphanumeric characters, with no blanks.

User name: (Optional field)

Enter the name of the user.

Room number: (Optional field)

Enter the user's room number.

Telephone number: (Optional field)

Enter the user's telephone number.

Default printer name: (Required field)

Enter the user's default printer name.

⇒ NOTE:

The default printer must be previously administered. Also, users can change their default printers at any time by selecting "Options" from the **Command** SLK menu. If a user does this, the change will automatically display 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 one):

Normal user

Enter an **x** if the CMS user will **not** have access (by default) to the System Setup, User Permissions, and Forecasting (if purchased) subsystems.

Administrator

Enter an **x** if the CMS user will have access (by default) to all parts of CMS.

Maximum user window count (1-12):

Enter the maximum number of open windows this user can have. The range is 1 to 12 open windows.

The default value is **4**.



CAUTION:

The more open windows you allow, the more processor resources this user will be 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.



CAUTION:

Faster refresh rates consume more processor resources.

Login ACD:

Enter the ACD name or number that will be this user's current ACD each time this user logs into CMS.

The default value is **1**.



NOTE:

Users may change their *current* ACD any time to a pseudo-ACD during a login session by selecting "Options" from the Command SLK menu. However, when the user logs out and then logs back in, the *current* ACD will default back to what has been entered in this window. See Chapter 2, "User Basics — Selecting the Current ACD," for the procedures.

Feature Access

Purpose

From this window, you will assign, view, or modify user access permissions for the CMS subsystems (for example, Reports, Dictionary, Exceptions) and certain SLK menu items (such as UNIX system, Timetable). The access permissions you give any user here affect what that person will be able to do with CMS.

Things to Know Before You Start

- You cannot change or delete feature access permissions for **cms** and **cmssvc** login IDs. This prevents a user with access to the User Permissions subsystem from mistakenly turning off access permissions to all or any part of CMS for the CMS administrator and/or the AT&T Services organization.

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. CMS administrator login IDs have defaults of “y” (yes) for all, and normal CMS users have yes for all except User Permissions, System Setup, and Forecasting.
- 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 supervisors will not need write access to User Permissions, Maintenance, or the UNIX 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 will not appear among that user’s menu options.
- Whenever you change a user’s permissions, the change will 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 6 for more information.
- 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 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 6, “Timetables and Shortcuts,” for more information and the procedures.

Feature Access Window

To modify Feature Access permissions for a user, you must complete this window.

User Perm: Feature Access			ACD1
User IDs: jlv			Find one
Read	Write	Feature	List all
y_	y_	ACD Administration	Modify
y_	y_	Custom Reports	Next
y_	y_	Dictionary	Previous
y_	y_	Exceptions	
y_	n_	Forecast	
y_	y_	Maintenance	
y_	y_	Reports	
n_	n_	System Setup	
y_	y_	Timetable	
n_	n_	User Permissions	
	y_	UNIX (r) System	

Figure 10-3. Feature Access — Normal CMS User Example

Field/Action List Usage

Modify

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 features are checked.

Field Description

User IDs:

Enter the ID(s) of the user whose feature access permissions you want to modify or view.

Read (Defaults shown are for a “normal” user type.)

If the user entered in the User ID: field will have read permission, enter a **y** for yes. If this user will *not* have read permission, enter an **n** for no.

Write (Defaults shown are for a “normal” user type.)

If the user entered in the User ID: field will have write permission for the features listed in the Features: field, enter a **y** for yes. If this user will *not* have write permission, enter an **n** for no.

⇒ NOTE:

You cannot assign a user write permission without read permission.

Feature (Display only field)

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

Purpose

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 supervisors.

Things to Know Before You Start

- If the assigned access permission is *no*, this Main Menu item will not appear on the user's Main Menu.
- 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 CMS. 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 11, "System Setup — Main Menu Addition," for more information.

Relationships to Other Subsystems

Timetable

This window can be placed on a timetable. See Chapter 6, "Timetables and Shortcuts," for more information and the procedures.

Main Menu Addition Access Window

To assign Main Menu Addition Access permissions for a user, you must complete this window.

03/20/92 08:30 AM Call Management System Windows: 1 of 1	
User Permissions: Main Menu Addition Access ACD1	
Additions:	Find one List all Modify Next Previous
User IDs: _____	
Addition: _____	
Access (y/n): _	

Figure 10-4. Main Menu Addition Access Window Example

Field/Action List Usage

User IDs:

The User IDs: field requires an entry with all action list items.

Modify

If you modify the Main Menu Addition access, the change takes effect when the user logs out and back in again.

Field Description

Addition: (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.

Additions:

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 Additions field.

Split Access

Purpose

From the Split Access window, you will assign, view, modify, or delete a user's access permissions to specific splits. Split Access permissions determine a CMS user's ability to access and administer agent/queue data for a particular split. You will also turn on or off the exceptions notification for splits in this window.

Things to Know Before You Start

- Whenever you change a user's permissions, the change will not occur until the user logs out and then back in or enters a subsystem through the main menu.
- You cannot assign a user write permission without read permission.
- For each split, you can give users read and write permission, read-only permission, or no permission.
- The CMS default permissions for all splits is **no read** and **no write** permission. However, CMS does not actually store records of split access permissions until you enter permissions on the Split 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, you can simply delete that user's permissions for that split instead of entering **no** in the **Read** and **Write** fields. Then, the CMS default of **no** permissions will be in effect again for that user for that split.

- 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 Access permissions for any user:
 - You must give the user a 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 will receive an Acknowledgement when you make a change that indicates the user does not have ACD access for the split(s); therefore, any change you make will 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 change to the Split Access window.
- Since you turn on the exception notification in this window, you will want to define the exception conditions for splits in the Exceptions subsystem. See Chapter 8, Exceptions, for more information.

Relationships to Other Subsystems

Timetable

The Split Access window can be placed on a timetable. See Chapter 6, "Timetables and Shortcuts," for more information and the procedures.

Split Access Window

To assign, modify, delete, or view Split Access permissions for a user, you must complete this window.

03/20/9208:30 AMCall Management SystemWindow 1 of 1

User Permissions: Split Accessacd1

User ID: _____	Add
Split(s): _____	Delete
Read (y/n) : _	Find one
Write (y/n) : _	List all
Exceptions (y/n): _	Modify
	Next
	Previous

Figure 10-5. Split Access Window Example

Field/Action List Usage

You cannot use the * or ? for searching in any field.

Modify

The User ID: field requires an entry for Modify.

You will receive an Acknowledgement if you Modify and this user does not have the correct ACD access.

If you modify the Split Access permissions, the change takes effect when you reopen a window in which the permissions are checked.

Find one/List all

With Find one/List all, only user IDs with Split Access permissions previously saved are displayed.

Field Descriptions

User ID:

Enter the ID of the user whose split access permissions you want to add, delete, modify, or view.

Split(s):

Enter the split 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 split(s), or enter **n** (no) if this user will **not have** read permission for the split(s).

Write (y/n):

Enter **y** (yes) if this user will have write permission for the split(s), or enter **n** (no) if this user will **not have** write permission for the split(s).

⇒ NOTE:

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 exceptions for the given split(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.

⇒ NOTE:

You select the exceptions notification (audio or screen flash) from the **Commands** SLK. See Chapter 8, "Exceptions — Selecting Your Exception Notification," for the procedures.

Trunk Group Access

Purpose

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 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

- Whenever you change a user's permissions, the change will not occur until the user logs out and then back in or enters a subsystem through the main menu.
- 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.
- The CMS default permissions for all trunk groups is **no read** and **no write** permission. However, 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 CMS default of **no** permissions will be 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 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 will receive an Acknowledgement when you make a change that indicates the user does not have ACD access for the trunk group(s); therefore, any change you make will 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 will want to define the exception conditions for trunk groups in the Exceptions subsystem. See Chapter 8, Exceptions, for more information.

Relationships to Other Subsystems

Timetable

The Trunk Group Access window can be placed on a timetable. See Chapter 6, "Timetables and Shortcuts," for more information and the procedures.

Trunk Group Access Window

To assign Trunk Group Access permissions for a user, you must complete this window.

03/20/92 08:30 AM Call Management System Window 1 of 1	
User Permissions: Trunk Group Access acd1	
User ID: _____	Add
Trunk Group(s): _____	Delete
Read (y/n) : _	Find one
Write (y/n): _	List all
Exceptions (y/n): _	Modify
	Next
	Previous

Figure 10-6. Trunk Group Access Window Example

Field/Action List Usage

You cannot use the * or ? for searching in any field.

Modify

The User ID: field requires an entry for Modify.

You will receive an Acknowledgement if you modify and this user does not have the correct ACD access.

If you modify the Trunk Group Access permissions, the change takes effect when you reopen a window in which the permissions are checked.

Find one/List all

Find one and List all display only the user IDs with Trunk Group Access permissions previously saved.

Field Description

User ID:

Enter the ID of the user whose trunk group permissions you want to add, delete, modify, or view.

Trunk Groups:

Enter the trunk group name(s) or number(s) that this user(s) will access.

Read (y/n):

Enter **y** (yes) if this user will have read permission for the trunk group(s), or **n** (no) if this user will **not** 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 **not** have write permission for the trunk group(s).

⇒ NOTE:

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 will also have entries in the real-time exceptions log and an exception count on the title bar.

⇒ NOTE:

You select the exceptions notification (audio or screen flash) from the **Commands** SLK. See Chapter 8, "Exceptions — Selecting Your Exception Notification," for the procedures.

ACD Access

Purpose

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 will 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 CMS default of **no** permissions will be in effect again for that user for that ACD.
- Whenever you change a user's permissions, the change will not occur until the user logs out and then back in or enters a subsystem through the main menu.
- You cannot assign a user write permission without read permission.
- For each ACD, you can give users read and write permission, read without write permission, or no permission.
- If you turn the ACD read/write access permission off for any user, then read/write access permission for all splits, 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, trunk group, vector, or VDN, you will receive an Acknowledgement that indicates the user does not have ACD access, and the change will 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 CMS user ID. See the User Data window in this chapter.
- If you remove a user's access to their 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 will want to define the exception conditions for the ACD in the Exceptions subsystem. See Chapter 8, Exceptions, for more information.
- 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 6, "Timetables and Shortcuts," for more information and the procedures.

ACD Access Window

To assign ACD Access permissions, you must complete this window.

03/20/92 08:30 AM Call Management System Window 1 of 1	
User Permissions: ACD Access	
User ID: _____	Add Delete Find one List all Modify Next Previous
ACD(s): _____	
Read (y/n) : _	
Write (y/n) : _	
Exceptions (y/n) : _	

Figure 10-7. ACD Access Window Example

Field/Action List Usage

The **User ID:** field requires an entry for all action list items.

You cannot use the * or ? for searching in any field.

Modify

If you modify the ACD Access permissions, the change takes effect when you reopen a window in which the permissions are checked.

Field Description

User ID:

Enter the ID of the user whose ACD access permissions you want to add, modify, or view.

ACDs:

Enter the ACD name(s) or number(s) that this user will be able to access (real or pseudo).

Read (y/n):

Enter an **n** (no) if this user will **not** have read permission for the ACD(s) — real or pseudo, or enter an **y** (yes) if this user will have read permission for the ACD(s) — real or pseudo.

Write (y/n):

Enter an **n** (no) if this user will **not** have write permission for the ACD(s), or enter an **y** (yes) if this user will have write permission for the ACD(s).

NOTE:

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 will also see entries in the real-time exceptions log and an exception count on the title bar.

NOTE:

You select the exceptions notification (audio or screen flash) from the Commands SLK. See Chapter 8, "Exceptions — Selecting Your Exception Notification," for the procedures.

VDN Access

Purpose

You define VDN access permissions to users to determine a user's ability to administer VDNs with the various CMS subsystems and to access report/administration data for VDNs.

Use the VDN Access window (Figure 10-8) to assign, view, modify, or delete a CMS user's access permissions to specific VDN's.

Things to Know Before You Start

- For any particular VDN, you can give a user either:
 - Read-only permission
 - Read and write permission.

You **cannot** assign a user write permission without also assigning read permission.

- 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 CMS default permissions for all VDNs is **no read** and **no write** permission. However, 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 CMS default of **no** permissions will be 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.

VDN Access Window

To assign VDN Access permissions, you must complete this window.

03/20/92 08:30 AM Call Management System Window 1 of 1	
User Permissions: VDN Access	
User ID: _____	acd1
VDN(s): _____	Add
Read (y/n) : _	Delete
Write (y/n) : _	Find one
Exceptions (y/n) : _	List all
	Modify
	Next
	Previous

Figure 10-8. VDN Access Window

Field/Action List Usage

List all

To view a user's VDN access permissions, enter the user's ID and select **List all**.

Add

To add a user's VDN access permissions for the first time, complete all fields, and select **Add**.

Modify

To modify a user's VDN access permissions, complete the **User ID** and **VDN(s)** fields, and any of the remaining fields. Then, select **Modify**.

Delete

To remove a user's permissions for one or more VDNs, complete the **User ID** and **VDN** fields, and select **Delete**. To **remove** all VDN permissions for a user, complete the **User ID** field, and select **Delete**.

Field Descriptions

User ID:

Enter the ID of the user whose VDN access permissions you want to add, delete, modify, or view.

VDN(s) :

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 not 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 not 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 not 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 8, "Exceptions."

Vector Access

Purpose

You define vector access permissions to users to determine a user's ability to administer vectors with the various CMS subsystems and to access report/administration data for vectors.

Use the Vector Access window (Figure 10-2) to assign, view, modify, or delete a 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.

- 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.

- The CMS default permissions for all vectors is **no read** and **no write** permission. However, 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 CMS default of **no** permissions will be 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 assign, on the ACD Access window, the user's ACD access. Without access to a specific ACD, the user cannot access the vector for that ACD.
- You must have **write** permission for the User Permissions subsystem.

Vector Access Window

To assign Vector Access permissions, you must complete this window.

03/20/92 08:30 AM Call Management System Window 1 of 1	
User Permissions: Vector Access acd1	
User ID: _____	Add
Vector(s): _____	Delete
Read (y/n) : _	Find one
Write (y/n) : _	List all
Exceptions (y/n) : _	Modify
	Next
	Previous

Figure 10-9. Vector Access Window

Field/Action List Usage

List all

To view a user's vector access permissions, enter the user's ID and select **List all**.

Add

To add a user's vector access permissions for the first time, complete all fields, and select **Add**.

Modify

To modify a user's vector access permissions, complete the **User ID** and **Vector(s)** fields, and any of the remaining fields. Then, select **Modify**.

Delete

To remove all vector permissions for a user, enter the user's ID, and select **Delete**.

Field Descriptions

User ID:

Enter the ID of the user whose vector access permissions you want to add, delete, modify, or view.

Vector(s):

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), or enter **n** (no) if this user will not have read permission for the vector(s).

Write (y/n) :

Enter **y** (yes) if this user will have write permission for the vector(s), or
enter **n** (no) if this user will not 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 not 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 8,
“Exceptions.”

General Information

From the System Setup subsystem (Figure 11-1), you can view windows that display how your CMS was configured during installation. You can also do the following from this subsystem.

- View switch information.
- Define an ACD (pseudo-ACD) that will 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 CMS files.
- Specify the intervals of time at which data will be stored (archived), and define what days of the week will constitute a week for your call center (for example, Monday through Friday).
- Specify what and how much agent data will be stored 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 CMS, and change the state to or from single-user mode and multiuser mode.

- Turn data collection on or off.
- Archive on **demand** for daily, weekly, and/or monthly summaries.
- Migrate data from R2 CMS to R3 CMS.



CAUTION:

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.

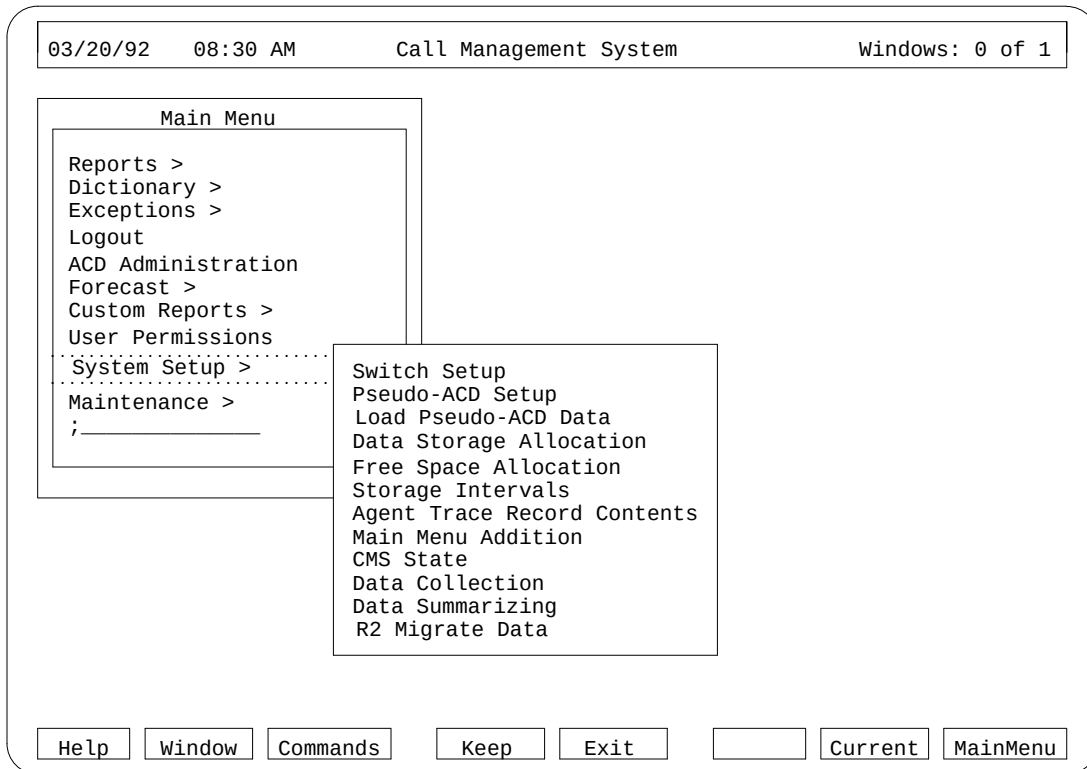


Figure 11-1. System Setup Menu

Terms

Single-User Mode

Only one person can log into CMS. Data continues to be collected if data collection is "on."

Multiuser Mode

Any administered CMS user can log into CMS. Data continues to be collected if data collection is "on."

Data collection off

CMS is not collecting ACD data. If you turn off data collection, you will lose data on current call activity.

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 Allocation in the Forecasting subsystem), you may want to use the Disk program to help you understand the results of your changes.

Using the Disk Program

Use the Disk program to calculate the minimum amount of disk space you need on your CMS computer. The program bases its calculations on your computer type, your ACD configuration, and the amount of data you want to store.

Disk Space Allocation

The program not only determines the megabytes (MB) of disk space you will need, but also does a hypothetical allocation of data to the required number of disks. The program must hypothetically allocate data in order to determine how many disks you need. This allocation is necessary for two reasons:

1. The UNIX system, CMS, and other software packages use a significant portion of space on the first disk, and on the second, if there is one. Thus, much of the disk space on Disk 1 (and Disk 2) is used before any data is stored.
2. Any type of data (agent data, split data, VDN data, and so on) must be stored together on a single disk. Data of a specific type cannot be divided up between disks. Thus, if a type of data (for example, agent data) will require a very large amount disk space, the data will probably not fit on Disk 1 and may, in fact, only fit on a disk dedicated to that type of data. This means that you may need a number of disks, even though some of those disks may have a significant amount of unused space.

For example, the disk allocation may determine that you need 4 disks (which, on a 6386 computer, is a total of 3,300 MB), even though the total data you will store is only 2,200 MB.

The program actually allocates data to disk in three different ways:

DOSS Output	This disk allocation is called DOSS output because it uses an algorithm that is also used in a tool your AT&T account executive uses. This algorithm allocates space to disk in a predetermined order.
Tightest Fit	This disk allocation maximizes the use of the lowest numbered disks (1, 2, 3, and so on). This allocation is useful if you want to see if reducing stored data might eliminate the need for the last disk.
Loosest Fit	This disk allocation spreads out the distribution of data so that unused data is also more evenly distributed between disks. This is the most effective allocation of data, once your system has the number of required disks.

Running the Program

Use the following steps to determine disk space using the Disk program.

1. If you are using the Pseudo-ACD capability, determine the number of megabytes of pseudo-ACD data you will want to store.
2. Access the UNIX system via the **Commands** SLK.
3. Type the following command:

```
$ /cms/toolsbin/disk
```

The following prompt appears:

```
enter customer name, or just  
hit return if it's not known:
```

4. Enter the file name in which you want the output to be stored, and press **Return**.
5. Continue to enter data according to the program's instructions.
 - You can exit the program at any time by pressing **Delete**.
 - Some questions and prompts require you to enter multiple values. For these questions, always include a space between values. For example, look at the values input in the following illustration:

```
Enter # of splits, trunk groups, and trunks: 40 40 250
```

Do not add punctuation between values.

- Use **Back Space** to erase characters in a field.
- If you want to go back to the previous question to change your response, type **-1** in the current field. The previous question will redisplay.

-
6. To save output to a file, you must exit the program by answering the final prompt with **n**. The final prompt is:

do you want to run another case? (y or n):

The final output lists the estimated disk space your data will use, the number of disks required and how the data should be allocated to those disks.

The program sends the disk output to a file with the name you entered and the prefix **s..** The program sends the configuration data you entered to another file with the name you entered and the prefix **c.s..** If you do not enter a name, the program will save Disk output to a file called **space** and the configuration output to a file called **c.space**.

 NOTE:

If you exit the program with , the program will **not** send output to a file.

Printing Output From the Disk Program

Print the Disk output with the following command:

```
$ lp space
or
$ lp s.<file_name>
```

Remove the Disk output with the following command:

```
$ rm space
or
$ rm s.<file_name>
```

Switch Setup

Purpose

This window displays the following switch setup information as it was assigned during installation.

- Switch name
- Switch release
- CMS-administrable switch features (that is, Call Vectoring and Call Prompting)

Things to Know Before You Start

- The Switch Setup window will not accept pseudo-ACD names or numbers in the ACD field. It is only for the *live* (real) ACD, not pseudo-ACDs.
- 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 10, “User Permissions” for more information.

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 7, “Dictionary — ACDs,” for more information.

Switch Setup Window

View this window to see your switch name, switch release, and whether you have Call Vectoring or Call Prompting.

03/20/92 08:30 AM Call Management System Window 1 of 4

System Setup: Switch Setup

ACD: 1

Switch type: DEFINITY

Switch release: G2.1

Features:

- Call Vectoring
- Call Prompting

Find one
List all
Modify
Next
Previous

Figure 11-2. Switch Setup Window Example

Field Descriptions

ACD:

Enter the name or number of the ACD you want to view or modify.

Switch type: (Display only field)

Your switch type (DEFINITY, System 85).

Switch release: (Display only field)

The switch release (G1.1, G3i, G2.1, R2V4, G3r, etc.)

Features: (Display only field)

Displays the switch features that affect CMS data (that is, Call Vectoring and/or Call Prompting).

Pseudo-ACD Setup

Purpose

You will create an area on your CMS for a model ACD (Pseudo-ACD) and give this Pseudo-ACD a number. This area and number will be used by 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 R3 CMS and then unarchive that data on another CMS using this window. You will then be able to use this data to run historical multi-ACD reports for example.

Things to Know Before You Start

- Pseudo-ACDs are numbered from 11 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, etc.) will equal the maximum and minimum parameters of your live (real) ACD for your particular switch. You can 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

Historical

Dictionary

all submenu items

Forecast

all submenu items

Custom Reports

all submenu items

User Permissions

all submenu items

System Setup

Switch Setup

Pseudo-ACD Setup

Load Pseudo-ACD

Data Storage Allocation

Free Space Allocation

Storage Intervals

Agent Trace Record Contents

Main Menu Addition

CMS State/Parameters

Data Collection

Data Summarizing

R2 Migrate Data

Maintenance

Back Up Data

Restore Data

Backup/Restore Devices

Printer Administration

Connection Status

ACD Status

Error Log Report

- Pseudo-ACDs will not summarize data into weekly and monthly summaries unless data from the backup is 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, you will 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.

- See if there is enough free space to unarchive the data. The Free Space Allocation window is used to see where data is 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.
- If you will have the Forecasting feature on the pseudo-ACD, you should change as appropriate the values for the Forecasting Archive Parameters. These values affect the free space allocation. To change these values, see the Archive Parameters window in the Forecasting subsystem.
- You must have **read** permission for the System Setup subsystem to view the Pseudo-ACD Setup window. See Chapter 10, “User Permissions — Feature Access.”
- You must have **write** permission for the System Setup subsystem to create pseudo ACDs. See Chapter 10, “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 12, “Maintenance — Back Up Data.”
- 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 that will be loaded to the pseudo-ACD because 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 10, “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 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. 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 will no longer have access to the data. The deletion succeeds even if windows are open.

Timetable

You can place this window on a timetable. See Chapter 6, “Timetables and Shortcuts.”

Pseudo-ACD Setup Window

You must complete this window to create a pseudo-ACD.

The screenshot shows a window titled "Call Management System" with a status bar at the top displaying "03/20/92 08:30 AM" and "Window 1 of 4". The main content area is titled "System Setup: Pseudo-ACD Setup". It contains a form with a label "ACD:" followed by a text input field. To the right of the input field is a vertical list of action items: "Add", "Delete", "Find one", "List all", "Modify", "Next", and "Previous". The "List all" item is highlighted with a dotted border.

Figure 11-3. Pseudo-ACD Setup Window Example

Field/Action List Usage

Add

With **Add**, you must enter an ACD number. With all other action list items, you can enter the ACD name.

⇒ NOTE:

It is recommended that you do **not** give the pseudo-ACD a name in the Dictionary subsystem until after you set up the pseudo-ACD and then load the pseudo-ACD. When you first create (add) a pseudo-ACD and then do a Load Pseudo-ACD, CMS names the pseudo-ACD the same name as the ACD (acd1 = sales so pseudo-ACD 12 = sales).

Field Descriptions

ACD: (Required field)

Enter the number (11 through 26) or name of the pseudo-ACD.

Load Pseudo-ACD Data

Purpose

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 the data. You do this from the **Commands** SLK menu, selecting Options, then Current ACD. See Chapter 2, “User Basics — Selecting the Current ACD,” for the procedures.
- Since this window will accept 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 exists.
- Data is migrated to the pseudo-ACD between the specified start and stop dates in this window.
- When loading Dictionary data into the pseudo-ACD, any new data will overwrite any existing names for that pseudo-ACD, including the name of the pseudo-ACD. If you want to rename the pseudo-ACD, you will need to do so each time the ACD’s Dictionary data for the pseudo-ACD is reloaded. You do not have to load the Dictionary each time, however.

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 that will 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 10, “User Permission — ACD Access”).
- If you have the Forecasting feature, you should change, as appropriate, the values for the Forecasting Archive Parameters. These values affect the free space allocation. To change these values, see the Archive Parameters window in the Forecasting 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 6, “Timetables and Shortcuts.”

Load Pseudo-ACD Data Window

You must complete this window to load data into the pseudo-ACD created in the Pseudo-ACD Setup window.

03/20/92	08:30 AM	Call Management System	Windows: 1 of 4

System Setup: Load Pseudo-ACD Data		ACD12
Status: Errors: From ACD: ____ Device name: _____ Start date: _____ Start time: 12:00 _am_ Stop date: _____ Stop time: 11:59 _pm_	Cancel List device Run	

Figure 11-4. Load Pseudo-ACD Data Window Example

Field/Action List Usage

Cancel

Cancel stops loading the data. If you stop loading data before it is finished, partial data for this Pseudo-ACD will remain.

List device

List device displays a list of all the devices which have been specified in the Backup/Restore Devices window.

Run

Run starts loading the data.

⇒ NOTE:

Standard action list selections and procedures apply for all action list items. See Chapter 2, "User Basics."

Field Descriptions

Status: (Display only field)

Displays the status of the data being loaded to the pseudo-ACD.

Errors: (Display only field)

Displays any errors found while loading the pseudo-ACD data.

From ACD:

Enter the ACD number the data is 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 12, "Maintenance," for more information on this window.

Start date:

Enter the date that is contained on the volume which you want to load to the pseudo-ACD.

⇒ NOTE:

The start date tells 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.

⇒ NOTE:

The time tells CMS which time to look for on the backup volume and begin at this point loading data to the pseudo-ACD. The start/stop time is inclusive.

Stop date: (Required field)

Enter the date at which you want to stop loading the data from the backup volume to the pseudo-ACD.



NOTE:

This is the date on the backup volume at which you want 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.



NOTE:

This is the time on the backup volume at which you want CMS to stop loading data to the pseudo-ACD. The start/stop time is inclusive.

Data Storage Allocation

Purpose

The Data Storage Allocation window allows you to specify how much and how long data is saved by 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, 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 will 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.

The Data Storage Allocation requirements will vary from CMS installation to CMS installation. You will have to determine your CMS data requirements based on the following:

- Available disk space on your specific system configuration. For information on the amount of disk space available with different CMS configurations, see the *Call Management System Planning, Configuration, and Implementation Guide* (585-215-611).
- 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 data will be stored (for example, 30 days versus 100 days versus 2 years).

The historical database will probably be the largest user of disk space. You can use the Data Storage Allocation window to reduce the amount of historical data being saved.

Your CMS reporting priorities will also determine how you set your data storage allocation.

Things to Know Before You Start

- The maximum storage for each data type (i.e., agent, split, 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 will be four times larger than if you set your intrahour interval at 60 minutes (for the same number of days of data).

The start and stop time in the Storage Intervals window also affects 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 will affect the amount of free space still available. (See the Free Space Allocation window description later in this chapter.)
- CMS must be in the single-user mode. You will use the CMS State window to put CMS in single-user mode (see CMS State later in this chapter). (If you log out of CMS while in the single-user mode, you must wait at least 10 seconds before logging in again.)

-
- Data collection must be “off.” You turn data collection on and off in the Data Collection window (see Data Collection later in this chapter).



NOTE:

With a pseudo-ACD only, data collection can be on when you modify the Data Storage Allocation window. See Pseudo-ACD Setup earlier in this chapter.

- To view how space has been allocated, you need **read** permission for the System Setup subsystem.
- To modify data storage allocation, you must have **write** permission for the System Setup subsystem.

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.

Data Storage Allocation Window

To change the allocated amount of storage space used when collecting historical data, you fill out this window. This window will display the values set during installation of your CMS.

01/30/92 00:30 PM Call Management System 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 (1-60)	60	7	31	0	0
Agents		7	31	0	0
Trunk Grps (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 Agents logged in: _____
Shift 2 Times: xx:xxAM-xx:xxPM Agents Logged in: _____
Shift 3 Times: xx:xxPM-xx:xxPM Agents logged in: _____
Shift 4 Times: xx:xxPM-xx:xxAM Agents logged in: _____
Total Split members, summed over all splits (0-xxxx): _____
Number of unmeasured trunk facilities: 200

Total exceptions records for all ACDs (0-2000): 500

Figure 11-5. Data Storage Allocation Window Example

Field/Action List Usage



CAUTION:

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. Wait till the initial modify finishes before starting another.



NOTE:

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.

Field Descriptions

Data Item: (Display only)

Lists the maximum number of splits, trunk groups, trunks, call work codes, vectors, and VDNs allowed for your system.

of Items

Enter the number of items for splits, 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, 3 will be displayed under the # of Items header in the row corresponding to the Splits data item.

Days of Intrahour

Enter the number of days for which you want intrahour data stored for splits, agents, trunk groups, trunks, call work codes, vectors, and VDNs.

- Each entry (split, 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 will be displayed under the Days of Intrahour header in the row corresponding to the appropriate data item.

Days of Daily

Enter the number of days for which you want daily data stored for splits, agents, trunk groups, trunks, call work codes, vectors, and VDNs.

- Each entry (split, 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 will be displayed 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, agents, trunk groups, trunks, call work codes, vectors, and VDNs.

- Each entry (split, 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 will be displayed under the **Weeks of Weekly** header in the row corresponding to the appropriate data item.

Months of Monthly

Enter the number of months for which you want monthly data stored for splits, agents, trunk groups, trunks, vectors, and VDNs.

- Each entry (split, 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 will be displayed 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 times and the number of agents logged in for those shifts for up to four shifts. (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 will receive an acknowledgement.
- CMS will *round* shift times to the nearest interval. For example, if you use 30-minute intervals and specify a shift from 8:15 to 5:15, CMS assumes that this shift is from 8:00 to 5:30.
- 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.

Total split members, summed over all splits (0-xxxx):

Enter the total number of measured split extensions summed over all splits. For Generic 2/System 85, this includes members of split 0. For Generic 1 and Generic 3, you need to count extensions in multiple splits once for **each** split in which they are members. This number cannot exceed the maximum number you paid for.

⇒ NOTE:

The link between CMS and the switch will not come up if you assign more agent extensions to splits than you have paid for. You can assign an agent extension to several different splits, but an agent can only be logged into three of those splits simultaneously.

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 and **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 CMS trunk group.

Total exceptions records for all ACDs (0-2000):

Enter the total number of exceptions stored for CMS. This total is for each **type** of exception (e.g., agents, splits, VDNs).

Free Space Allocation

Purpose

The Free Space Allocation window allows you to identify and specify where you would like to store specific CMS files. For example, you can specify where all the files associated with trunks will be stored. This window is used to identify which file systems CMS will use.

Things to Know Before You Start

- The *available space* is calculated as follows: free space currently available minus space allocated for CMS but not yet used.



CAUTION:

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 CMS data storage parameters, the change will be reflected in the Free Space Allocation window. For example, if in the Data Storage Allocation window, you increase the number of splits on your system, the Free Space Allocation window will display the new number as well as the approximate amount of memory required to handle the total number of splits.
- 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 **Forecasting** 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).
- You must put CMS in single-user mode (see “CMS State” later in this chapter). (If you log out of CMS while 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 Free Space Allocation window. See Chapter 10, “User Permissions — Feature Access.”
- You need **write** permission for the System Setup subsystem to change the fields located in the Free Space Allocation window. See Chapter 10, “User Permissions — Feature Access.”

Relationships to Other Subsystems

Forecasting

The values entered in the Forecasting — Data Storage Allocation window will affect storage space. See Chapter 14, “Forecasting,” for more specific information on the Forecasting feature.

NOTE:

Forecasting is a separately purchased CMS feature.

Timetable

This window **cannot** be placed on a timetable.

Free Space Allocation Window

You must fill out this window to specify where you would like to store specific CMS files.

01/30/9208:30 AMCall Management SystemWindow 1 of 1

System Setup: Free Space AllocationAll ACDs

Status:

File system for:

Trunk groups: /cms

Agent trace: /cms

Exceptions: /cms

Call work codes: /cms

Forecasting: /cms

Trunks: /cms1

Agents: /cms1

Splits: /cms

Vectors: /cms

VDNs: /cns

System storage:	No.	Approximate Space Required	Free Space:	Available
Splits	22	5915	File System	Space
Agents	550	79518	/cms	32600
Trunks	1500	38839	/cms1	22171
Trunk Groups	26	2630		
Exceptions	2000	435		
Agent Trace	10000	494		
Call Work Codes	35	1552		
Forecasting		4099		
Vectors	72	7297		
VDNs	50	8050		

Figure 11-6. Free Space Allocation Window Example

Field/Action List Usage

Modify

If you try to modify the data storage (file systems) while data collection is on or CMS is in the multiuser mode, an acknowledge window will appear with an error message. Also, if there is not enough space available in the file system to move files/tables, an error will be displayed in a message window and **Failed** will be displayed on the status line.



CAUTION:

*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. Wait till the initial modify finishes before starting another.*

Field Descriptions

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 CMS files for Trunk groups, Agent trace, Exceptions, Call work codes, Forecasting, Trunks, Agents, Splits, Vectors, and VDNs.

This allows you to specify the file systems where you would like to store your CMS files. For example, the path name might look like */cms/trunk_groups*. The files are then placed in a directory *cmstables* in that file system.

System storage:

Displays data storage information concerning each of the files listed (that is, Splits, Agents, Trunks, Trunk Groups, Exceptions, Agent Trace, Call Work Codes, Forecasting, Vectors, and VDNs).

For each of the files listed, the following two statistics are displayed:

No. — The current number of administered splits, trunk groups, exceptions, etc. (as listed on the Data Storage Allocation window or in the Agent Trace Record Contents window) for both real and pseudo ACDs.

Approximate Space Required — The approximate number of blocks that will be used for splits, agents, trunks, trunk groups, exceptions, agent trace, call work codes, forecasting, vectors, and VDNs.

Free space:

Displays the amount of free space (in blocks) that is contained for each file system listed minus space allocated for CMS but not yet used.

File System

The names of the file systems that are available for storing CMS data.

Available Space

The amount of free space (in blocks) currently available minus space allocated for CMS but not yet used.

Storage Intervals

Purpose

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 will begin and end your call center's week.

Storage intervals can be changed to affect how often intrahour data is archived as well as altering the times at which the data is 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 is 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 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

- The Free Space Allocation window will display the amount of free space still available on your 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 CMS files or cut-down 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 will allow 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 will be the storage intervals that were specified at the time of installation.
- 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” 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.



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.

- CMS must be in the single-user mode before you can modify any storage intervals. Again, you may want to modify the storage intervals during “off-peak” hours. See “CMS State” later in this chapter. (If you log out while 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 10, “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 10, “User Permissions — Feature Access.” These permissions will be necessary to alter the storage specifications in 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 is 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” field in this window.

Maintenance

Prior to changing the storage interval size or data collection times (the daily start or stop time), you should do a full backup of the historical data.

Timetable

This window cannot be placed on a timetable.

Storage Intervals Window

During installation, defaults were set for this window. You can, however, change this window 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.

The screenshot shows a window titled "System Setup: Storage Intervals" with a user identifier "acd1" in the top right corner. The window is part of a "Call Management System" and is "Window 1 of 4". The main content area contains the following fields and options:

- Intrahour interval (Select one):** A dropdown menu with three options: "< > 15 minutes", "<x> 30 minutes" (which is selected), and "< > 60 minutes". A "Modify" button is located to the right of this dropdown.
- Data Summarizing time:** A text field containing "12:35 AM".
- Week start day (Select one):** A dropdown menu with seven options: "<x> Sunday" (selected), "< > Monday", "< > Tuesday", "< > Wednesday", "< > Thursday", "< > Friday", and "< > Saturday".
- Week stop day (Select one):** A dropdown menu with seven options: "< > Sunday", "< > Monday", "< > Tuesday", "< > Wednesday", "< > Thursday", "< > Friday", and "<x> Saturday" (selected).
- Daily start time:** A text field containing "12:00 AM".
- Daily stop time:** A text field containing "11:59 PM".

Figure 11-7. Storage Interval Window Example

Field/Action List Usage

Intrahour interval

A change in the intrahour interval field will not take effect until the end of the current intrahour interval, and existing historical data will automatically be migrated. If the new intrahour report interval is 15 minutes, the existing 30- or 60-minute data will be 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, the two 30-minute intervals or four 15-minute intervals will be combined.

Weekly Start Day/Weekly Stop Day

If the start and stop day are the same day of the week, only one day's worth of data will be stored per week.

When the weekly start or stop day is changed, the current week can be 1 to 13 days long. You will 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.

Daily start time/Daily stop time

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.

Modify



CAUTION:

*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. Wait till the initial modify finishes before starting another.*

Field Descriptions

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**

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) will be 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 will be done on the first day of February.

⇒ NOTE:

If you want data summarizing to start on the current day, set the summarizing time to more than 15 minutes after the daily stop time and before midnight. 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.

Week start day:

Enter an "x" next to the day of the week that will begin your call center's week. When you request a weekly report, the start date must correspond to the day that was specified in this field. You may only select **one** day of the week. **Sunday** is the default.

Week stop day

Enter an "x" next to the day of the week that will end 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 will be included in the weekly summary.

Daily start time:

Enter the time that the data collection will start 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).

Daily stop time:

Enter the time that the data collection will stop 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 will be collected through the end of the minute specified here (that is, data from 11:59 PM to 12:00 AM will be included).

Agent Trace Record Contents

Purpose

From the Agent Trace Record Contents window, you will specify what and how much agent data will be stored for later use in the Agent Trace historical report.

Things to Know Before You Start

- As you increase the number or 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 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.
- 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” (see “Data Collection” later in this chapter).
- CMS must be in single-user mode (see CMS State later in this chapter). (If you log out of CMS while in the single-user mode, you must wait at least 10 seconds before logging in again.)
- To view the contents included in an agent trace, you need **read** permission for the System Setup subsystem. See Chapter 10, “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 10, “User Permissions” for more information.

Relationships to Other Subsystems

ACD Administration

To activate or stop an agent trace, you will 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 10, “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 5, “Historical Reports — Agent Trace,” for more information.

Timetable

This window **cannot** be put on a timetable.

Agent Trace Record Contents Window

You must fill out this window to specify what and how much agent data will be stored for later use in the Agent Trace historical report.

03/20/92 08:30 AM Call Management System Window 1 of 4

System Setup: Agent Trace Record Contents All ACDs

Note: Modify requires CMS single-user mode and data collection off

Total agent records stored: 10000

Agent record always contains:
x Agent ID x Split
x Duration of event x Time event started
x Work mode x Reconnect
x 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

Modify

Figure 11-8. Agent Trace Record Contents Window Example

Field/Action List Usage

Select any you wish:

If you change any selection from this list, data will be 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.

Modify



CAUTION:

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. Wait till the initial modify finishes before starting another.

Field Descriptions

Total agent records stored:

Enter the total number of agent trace records to be stored. The maximum number of agent trace records that can be stored is 999999.

⇒ NOTE:

If the number of agent trace records to be stored is beyond the capacity of free space available, an acknowledge window will appear indicating that you should go to the Free Space Allocation window to make the proper adjustments.

Agent record always contains:

All of the agent trace records will contain information for the following fields:

- **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 that the agent logged in to.
- **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.

Select any you wish:

⇒ NOTE:

If you select any of the following **optional** items, they will **not** 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 DEFINITY Generic 2.2 switch or the DEFINITY 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

Purpose

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 R3 CMS 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. CMS will check to see if the full path name to the program/script exists and is executable. If it cannot find or execute the program/script, a warning will be given indicating that 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 10, “User Permissions” for more information.
- To modify any main menu additions, you must have **write** permission for the System Setup subsystem. See Chapter 10, “User Permissions” for more information.

Relationships to Other Subsystems

Maintenance

A CMS backup will **not** back up programs accessed via Main Menu Additions. You will have to use a UNIX system backup instead (see Chapter 13, “UNIX System”).

User Permissions

The default permissions for any main menu addition is “no.” You will need to change the permissions for affected users. See Chapter 10, “User Permissions — Main Menu Addition Access” for more information.

Timetable

The window can be placed on a timetable. See Chapter 6, “Timetables and Shortcuts,” for more information and the procedures.

Main Menu Addition Window

You must fill out this window if you want to add additional items to the main menu.

The screenshot shows a window titled "Call Management System" with a status bar at the top displaying "03/20/92 08:30 AM" and "Window 1 of 4". The main content area is titled "System Setup: Main Menu Addition" and contains three input fields: "Menu item name:", "Description:", and "Full path name to program:". To the right of these fields is a vertical menu with options: "Add", "Delete", "Find one", "List all", "Next", and "Previous". At the bottom of the input area, a message states: "Access must be assigned in Main Menu Addition Access."

Figure 11-9. Main Menu Addition Window Example

Field Descriptions

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

Purpose

The CMS State/Parameters window allows you to bring CMS down to single-user mode and back to multiuser. You will also select your master ACD for clock synchronization in this window.

 NOTE:

This will not bring the UNIX system down to the single-user mode. Also, if you log out of 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 CMS. Data will continue to be collected, if data collection is “on.”
- The following tasks require 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. 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 10, “User Permissions” for more information.
- To modify the CMS state, you must have **write** permission for the System Setup subsystem. See Chapter 10, “User Permissions” for more information.

CMS State Window

You must complete this window to change CMS mode (single-user or multiuser mode) and change the master ACD for clock synchronization.

01/30/92 00:30 PM Call Management System Window 1 of 4											
<table border="1"><tr><td>System Setup: CMS State/Parameters</td><td>All ACDs</td></tr><tr><td>CMS user mode (select one):</td><td>Modify</td></tr><tr><td colspan="2">< > Single-user mode</td></tr><tr><td colspan="2"><x> Multi-user mode</td></tr><tr><td colspan="2">Master ACD for clock synchronization: 1_____</td></tr></table>		System Setup: CMS State/Parameters	All ACDs	CMS user mode (select one):	Modify	< > Single-user mode		<x> Multi-user mode		Master ACD for clock synchronization: 1_____	
System Setup: CMS State/Parameters	All ACDs										
CMS user mode (select one):	Modify										
< > Single-user mode											
<x> Multi-user mode											
Master ACD for clock synchronization: 1_____											

Figure 11-10. CMS State Window Example

Field Descriptions

CMS user mode (Select one only):

< > Single-user mode

Enter an x to specify that CMS is being brought down to single-user mode.

⇒ NOTE:

When CMS is brought down to the single-user mode, an acknowledge window will be displayed to all CMS users indicating that CMS will be brought down in one minute. Users are automatically logged off after one minute. Also, if you log out of 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 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. CMS uses the switch's time which is displayed on the title bar.



NOTE:

To change the master ACD, data collection must be off.

Data Collection

Purpose

The Data Collection window is used to turn data collection on or off for the ACD.

Things to Know Before You Start

- When you turn on data collection, you should monitor the connection status of the link and make sure data is being transferred.
- When you turn off data collection, you will lose data. If calls are being handled, they will not be recorded in 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” when you activate an agent trace or do any switch administration from CMS.

Maintenance — Archiving Status

You should check the archiving status before turning off data collection so you can wait until the interval archive completes.

Data Collection Window

You must complete this window to turn data collection on or off.

03/20/92 08:30 AM Call Management System Window 1 of 4	
System Setup: Data Collection	
ACD: _____	Find one
Data collection (Select one):	List all
<x> On	Modify
< > Off	Next
	Previous

Figure 11-11. Data Collection Window Example

Field Descriptions

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.")

Data Summarizing

Purpose

The Data Summarizing window allows you to archive data into the historical database on demand for daily, weekly, and monthly summaries.



CAUTION:

Your data is automatically archived by CMS based on your entries in the Storage Intervals window. Therefore, it is recommended that you do not use this window unless an archival did not occur.

Things to Know Before You Start

- CMS automatically archives your data based on your storage intervals.
- Data summarizing is done on demand from this window which means it happens immediately.
- 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 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.

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.

Data Summarizing Window

Only complete this window if a previous archive did **not** occur.

The screenshot shows a window titled "Call Management System" with a status bar at the top displaying "03/20/92 08:30 AM" and "Window 1 of 4". Inside the window is a sub-window titled "System Setup: Data Summarizing". This sub-window contains a "Run" button in the top right corner. Below the button are three input fields: "ACD:" followed by a text box, "Data type (Select one):" followed by a list box containing three options: "<x> Daily", "< > Weekly", and "< > Monthly", and "Date:" followed by a text box.

Figure 11-12. Data Summarizing Window Example

Field Descriptions

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.
- The weekly data must be complete before CMS will archive the data. If you enter a date that falls within your predefined week (Storage Intervals window) and that week is not complete, CMS will not summarize weekly data.
- If the date entered does not fall within your predefined week, then the previous week will be summarized (as long as the previous week is a complete week). If your designated week is Monday through Friday and you enter a date which falls on Saturday, the data will be archived for the previous week.



WARNING:

If the date specifies a week or month that is not complete, summarizing will not occur for the week or month.

Entering the last day of the week or month ending date will not summarize data for the week or month. The weekly/monthly data will be summarized, but only if the last day has been summarized in the daily tables.

R2 Migrate Data

Purpose

The Migrate Data window is used to migrate data from R2 3B CMS to R3 CMS. Items that can be migrated include:

- Administration data (i.e., User Permissions)
- Dictionary
- Custom Reports
- Historical data
- Forecast Administration Data.

For a complete explanation and all the procedures, **see** the *Call Management System Migration* (585-215-113) document.

General Information

From the Maintenance subsystem (Figure 12-1), you can:

- Back up CMS data.
- Restore CMS data.
- Assign a name and description to a full path name for a device. This device name is used for data backups, data migration, and data restores.
- Assign printer names and options.
- Monitor the data link between the CMS processor and the switch.
- View the measurement status of a particular ACD.
- View the Error Log report.

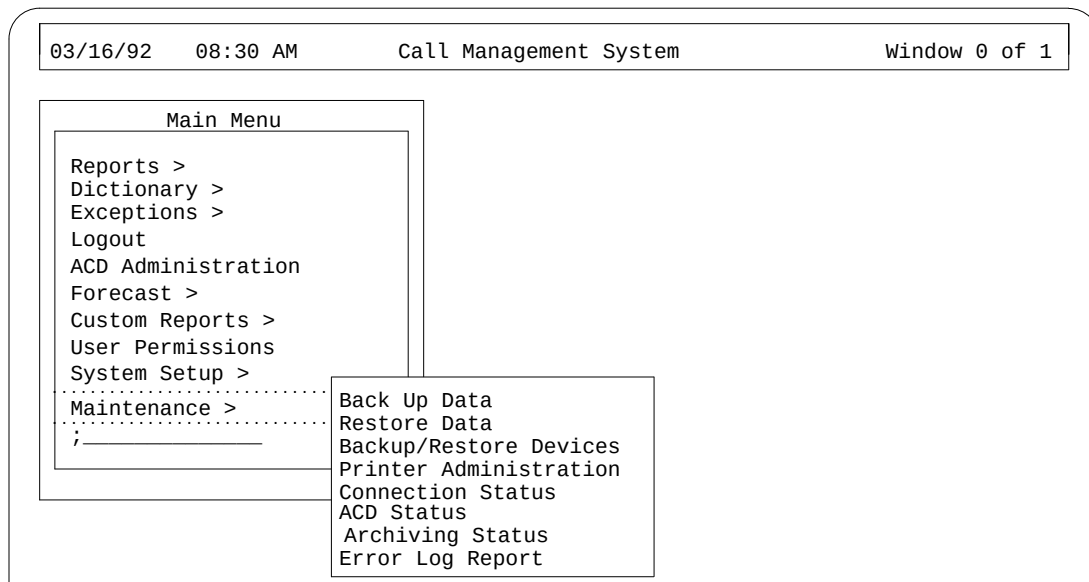


Figure 12-1. Maintenance Menu

Back Up Data

Purpose

By backing up data, you protect your 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. Therefore, if you have pseudo ACDs, you can either select the All ACDs option or the current ACD to back up that data.

Since new data is 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 mounted each day of the week, and each weekly sequence is repeated.

From this window, you can select the type of backup (Full or Incremental), which ACDs to back up (All or Current), and also the CMS subsystems to back up. The Back Up Data window does not back up the software which supports the CMS product. (Your tape used to install CMS serves as your software backup.)

Things to Know Before You Start

- 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.



NOTE:

If you using the CMS console terminal when backing up data and a UNIX system error occurs, the UNIX software will display 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.

- The CMS historical data for each ACD should be backed up after the 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 CMS historical data. The frequency of the CMS backups will depend on how current you want to keep the backup copy of the CMS historical data, and how much data your call center could afford to lose in the event of a catastrophic failure.

- You should have the appropriate number of tapes or floppy disks to be used for the backup.
 - After the proper acknowledgement (in the acknowledge window), a backup can write to any tape except tapes used in the most recent backup.
 - Floppy disks must be UNIX system formatted first. (Many floppy disks now come preformatted from the factory. Check first before formatting.)
- You **cannot** back up application software (CMS, UNIX System, INFORMIX, and 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 backup should be used instead (see Chapter 13, "UNIX System — Backing Up CMS File Systems From the UNIX System Environment").

-
- 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	2/13/92 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	2/13/92 8:05AM	2/17/92 4:30PM
Smith, M	2/17/92 8:00AM	2/17/92 4:30PM

- 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 10, 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 will be the backup device specified during the installation of CMS (unless you have changed it).
- If you are backing up data using floppy disks, the disks must first be formatted. See the your 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 have already been created for you, but you will have to schedule the incremental or full backup to run. If you use a timetable for a full backup, the entire backup may not fit on a single tape. If the backup needs more than one tape to finish, load another tape and the backup will continue when the tape is loaded. Otherwise, you will need to use the Back Up Data window to do the full backup.

⇒ NOTE:

If you do a full backup using timetable, the backup program assumes the tape is already loaded in the drive. You will not receive a message if the tape contains data other than the most recent backup. You should always check the error log (e.g., in the morning) for the volume label (when the backup is finished) or the error message if the backup fails.

System Setup

When doing a backup, pseudo ACD data is not backed up.

Maintenance

To restore data accurately and precisely (using the Restore Data window) because of a disk crash or system failure, regular backups are essential.

Back Up Data Window

You must fill out this window to back up data. Make sure you have read all the information in this section prior to filling out this window.

03/10/92 00:30 AM Call Management System Windows: 1 of 4

Maintenance: Back Up Data

Backups completed today: xx

Status:

Errors:

Device name: _____

Verify backup (y,n): n_

Data to back up (Select any you wish):

☒ ACD specific data,

Select one:

<x> Full <x> All ACDs

< > Incremental < > Current ACD

☒ System data

☒ Non-CMS data

☐ Specific tables

Cancel

List device

Run

Select tables

Figure 12-2. Back Up Data Window Example

Field/Action List Usage

Cancel

Stops the current backup in progress.

List device

Displays a list of all the devices which have been specified in the Backup/Restore Devices window.

Run

Starts the backup.

- You could also receive a message telling you to mount another volume to complete the backup. You will 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 Acknowledgements:
 - 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 mounted volume contains 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 your last backup volume. You will have to mount a different volume. CMS will not let you overwrite your last backup.
 - Errors on the volume. You will be asked to mount another volume.
 - Cannot back up a particular table. You will be asked if you want to skip the table and continue or cancel the backup.
 - Verify backup (y/n). Answer yes if the tape is readable.

Select tables

Brings up 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 this window and return to the Back Up Data window to run the backup.

NOTE:

Standard action list selections and procedures apply for all action list items. See Chapter 2, "User Basics."

Field Descriptions

Backups completed today: (Display only field)

Displays the number of backups which have been completed for the current day.

Status: (Display only field)

Displays the status of the current or most recent backup, and what is currently being backed up.

Errors: (Display only field)

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 backup (y/n):

Enter y (yes) to request that the data be re-read to ensure that the data has been stored properly.

While the data is being re-read, the message `Verifying` will be displayed on the status line. If there is no data to be re-read 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.

Data to back up (Select any you wish):

ACD specific data

Enter an "x" next to ACD-specific data if you want ACD data backed up.

ACD-specific data consists of historical data, forecasting data, call work code data, VDN and vector administration data, data storage allocation data, and Dictionary names.

Select one:

Enter an x next to Full or Incremental to select the type of backup.

- **Full** — A Full Backup will include 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 (e.g., once a week) do a Full Backup of your system.
- **Incremental** — An Incremental Backup will include the 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.



NOTE:

R3 CMS will keep track of the last Full Backup and Incremental Backups.

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 CMS system *except* pseudo-ACDs.
- **Current ACD** — Complete a data backup for the current ACD.

System data

Enter a ☐ if you want system data backed up. The default is yes, you want system data backed up.

System 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).

Non-CMS data

Enter an ☐ if you want non-CMS data backed up. The default is yes, you want this data backed up.

Non-CMS data includes all INFORMIX 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 INFORMIX tables are **not** backed up. A UNIX system backup should be used instead (see Chapter 13, "UNIX System — Backing Up CMS File Systems From the UNIX System Environment").

Specific Tables

When this field is selected, an additional window appears 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.

Back Up Data Specific Tables

The Back Up Data — Specific Tables field is used to back up selected 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.

03/10/92 08:30 AM Call Management System Window 1 of 4

Maintenance: Back Up Data

Backups completed today: xx

Status:

Errors:

Device Name: _____

Verify backup (y,n): n

Data to bac

[x] ACD-sp

Sele

<x>

< >

[x] System

[x] Non-CM

[] Specifi

Cancel

List device

Run

Select tables

Maintenance: Back Up Data: Select Tables

Tables to back up (Select any you wish):

Modify

Table name	Description
[] ag_actv	Agent Trace Data
[] agroups	Dictionary Agent Groups
[] dagent	Daily Agent Data
[] dsplit	Daily Split Data
[] dtkgrp	Daily Trunk Group Data
[] dtrunk	Daily Trunk Data
[] dvdn	Daily VDN Data
[] dvector	Daily Vector Data
[] hagent	Interval Agent Data
[] haglog	Agent Login/Logout Data

31x49

Figure 12-3. Back Up Data Specific Tables Example

Field/Action List Usage

Modify

After selecting **Modify** to select the specific tables which will be backed up, you must return to the **Back Up Data** window to run the backup.

Field Descriptions

Tables to back up (Select any you wish):

Enter an **x** to select any of the listed INFORMIX tables whose data you want to back up.

Table name

The field displays the designated name of the INFORMIX table.

Table description

This field displays the type of data included in the INFORMIX table.

Labeling the Backup Volume

After a successful backup, you need to label your backup volume (s) (tape or floppy disks). CMS provides the tape label information in the final Acknowledgement 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. 920323 — Year, month, and day of the backup.
3. NN — Number of backups for this day.
4. LLL — The type of data backed up (**S** for System data, **A** for ACD-specific data, and **C** for Custom data). You could see XAX which means that only ACD-specific data was backed up.

-
5. NN — The 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

Purpose

The Restore Data window allows you to restore CMS data that has been lost due to system failure, disk crashes, power outages, and so forth. You can restore all CMS data files that you have previously backed up. In a pseudo ACD environment, you can restore data for each pseudo ACD in your system. Therefore, if you have multiple pseudo ACDs, you can either select the All ACDs option or the Current ACD option to restore the data.

From this window, you can select which ACDs to restore (All or Current) and also the CMS subsystems from which to restore data.

Things to Know Before You Start

- To start restoring data, CMS must be in the single-user mode, but data collection can continue. As a result, all users except you will be logged off of CMS. CMS will warn all other users before going into the single-user state. Also, if you log out of 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.



CAUTION:

*You can bring CMS to the **multiuser** mode when the status line on the window displays Restoring Historical data.*

- When restoring data using the CMS console terminal and a UNIX system error occurs, the UNIX software will display the error message(s) on the CMS console. To clear this message from the console screen, select the Redraw screen menu item from the Window SLK.

- Restore operates in two different ways:

- **Automatic** restore

An automatic restore is the normal way to restore.

An automatic restore tells you which tapes to mount to restore all the requested data in this window (that is, All ACDs or Current ACD, or System data, etc.). The tapes will include any *full* or *incremental* restore needed. If Restore asks for a particular tape and you cannot provide it, you must cancel the restore and do a **manual** restore.

- **Manual** restore

A manual restore is used for problem situations or cases in which you know exactly what needs to be restored.

A manual restore will accept 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 Acknowledge message will display 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.

You have full control over what you restore doing a *manual* restore. You should do a **full** restore before doing any incremental.

The manual restore stops when severe errors occur or when you tell it there are no more volumes to restore.

- 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 will display devices to which you have already assigned Device 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 10, User Permissions — Feature Access.

Relationships to Other Subsystems

System Setup

You can restore system data (for example, Dictionary, User Permissions, Custom Reports), non-CMS data stored in the R3 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 will reflect the values of those parameters **as they were at the time of the backup**. See Chapter 11, “System Setup.”

Restore Data Window

You must fill out this window to restore CMS data. Make sure you have read all the information in this section prior to filling out this window.

03/10/92 08:30 AM Call Management System Windows: 1 of 4

Maintenance: Restore Data

Status:
Errors:

Device name: _____

Restore from last backup (y/n): n

Data to restore (Select any you wish):
[] ACD-specific data,
 Select one:
 <x> All ACDs
 < > Current ACD

[] System data
[] Non-CMS data
[] Specific tables

Cancel
List device
Run
Select tables

Figure 12-4. Restore Data Window Example

Field/Action List Usage

- **Cancel** — Stops the *restore* currently in progress.



CAUTION:

Cancelling a restore leaves the data already restored in the tables which may result in the database being in an abnormal state. An Acknowledgement window appears that will ask you if you are sure you really want to cancel the restore.

- **List** device displays a list of all the devices which have been specified in the Backup/Restore Devices window.
- **Run** starts the restore.

During a normal restore, you could receive an Acknowledgement for any of the following reasons:

- CMS cannot access the specified device.
- CMS cannot read the volume.
- The tape is not a CMS backup tape.
- The mounted volume is not compatible with the current database (for example, you receive new CMS software which is different than your previous CMS software).
- CMS has a problem reading the current volume. You will be asked if you want to continue with another volume.
- CMS is having a problem restoring a table(s). You will be asked if you want to skip this table(s) and continue or stop.
- At the end of every restored volume, you will see how many tables have been restored (fully or partially) (for example, 100 of 100).
- With an **automatic restore**
 - * You will be asked to mount a specific volume.
 - * If the specific volume has not been loaded, you will be 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 the **Cancel** action list item.

— With a **manual restore**

- * You will be asked to mount any volume you want.
- * After restoring each volume, you will be prompted for another volume.



CAUTION:

*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.***

- * If the volumes are mounted out of order (for example, you have three backup tapes and you load tape 3 before tape 2), you will be asked to mount the correct volume.
- Select **tables** brings up a secondary window 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.



NOTE:

Standard action list selections and procedures apply for all action list items. See Chapter 2, "User Basics."

Field Descriptions

Status: (Display only)

Displays status of current or most recent restore. This field is automatically updated as the restore status changes.



CAUTION:

*You can bring CMS to the **multiuser** mode when the status line on the window displays Restoring Historical data.*

Errors: (Display only)

Displays any errors found in the restore.

Device name:

Enter the device name.

This field may default to the device specified during the installation process. If this is the case, you can accept the default device name.

Restore from last backup (y,n):

If you select **y** for this field, the data will be restored from the most current backup. This is called an **automatic** restore.

If you select **n** for this field, the data will be restored from whatever tapes correspond to the restore selections indicated in this window. A “no” selection is called a **manual** restore.

 NOTE:

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). This applies to both automatic and manual restores.

Data to restore (Select any you wish):

ACD-specific data (y/n):

Enter an **x** next to one of the following to select which ACDs you want restored. The following only applies to an *incremental* restore.

Select one:

- **All ACDs** — Restore data (from the specified backup tapes) for all ACDs on the CMS system.
- **Current ACD** — Restore data (from the specified backup tapes) for the current ACD on the CMS system.

ACD-specific data consists of historical data, forecasting data, call work code data, VDN and vector administration data, data storage allocation data, and Dictionary names.

System data

Enter an **x** if you want system data restored. The default is yes, you want system data restored.

System 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).

Non-CMS data

Enter an **x** if you want non-CMS data restored. The default is yes, you want this data restored.

Non-CMS data includes all INFORMIX tables with names that start with "C_." Also, the table definitions for non-CMS INFORMIX tables are **not** backed up and therefore will not be restored. A UNIX system backup should be used first and then restored (see Chapter 13, "UNIX System — Backing Up CMS File Systems From the UNIX System Environment").

Specific Tables

This field is automatically selected when you select the action list item **Select tables** to specify which tables should be restored. If you select **Specific Tables** to be restored, you cannot make any other selection (for example, **System data**). In the case of a disk crash or something that completely corrupts the tables, you must first recreate the skeleton of any non-CMS tables you want to restore because the restore process does not recreate the tables. See "Specific Tables" section later in this chapter.

Restore Data Specific Tables

The **Restore Data — Specific Tables** field is used to restore selected tables. Using specific tables allows you to restore only the data that you deem necessary for your call center.

01/30/92 08:30 AM Call Management System Window 1 of 4

Maintenance: Restore Data

Status:

Errors:

Device Name: _____

Restore from

Data to res

[x] ACD-sp

Sele

<x>

< >

[x] System

[x] Non-CM

[] Specifi

Cancel

List device

Run.....

Select tables

Maintenance: Restore Data: Select Tables

Tables to back up (Select any you wish):

Modify

Table name	Description
[] ag_actv	Agent Trace Data
[] agroups	Dictionary Agent Groups
[] dagent	Daily Agent Data
[] dsplit	Daily Split Data
[] dtkgrp	Daily Trunk Group Data
[] dtrunk	Daily Trunk Data
[] dvdn	Daily VDN Data
[] dvector	Daily Vector Data
[] hagent	Interval Agent Data
[] haglog	Agent Login/Logout Data

31x49

Figure 12-5. Restore Data Specific Tables Window Example

Field Descriptions

Tables to restore (Select any you wish):

Enter an x to select any of the listed INFORMIX tables for which you want to restore data.

Table name

This field displays the designated name of the INFORMIX table.

Table description

This field displays the type of data included in the INFORMIX table.

Back Up/Restore Devices

Purpose

This window 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 10, User Permissions — Feature Access.

Relationships to Other Subsystems

- If you want information to display in the Back Up Data and Restore Data windows when using the `List device` action list selection, you must administer the device names and device attributes in this window.

Backup/Restore Devices Window

You must fill out this window to assign a name and description to a full path name for a device.

03/20/92 08:30 AM Call Management System Window 1 of 4

Maintenance: Backup/Restore Devices

Device Name: _____	Add
Path: _____	Delete
Description: _____	Find one
Device type (Select one):	List all
< > SCSI cartridge tape	Modify
< > Floppy disk	Next
	Previous

Figure 12-6. Backup/Restore Devices Window Example

Field/Action List Usage

Add

After **adding** a new backup/restore device, you must logout and then back in before you can use the device, even though the device is listed as a valid device.

Field Descriptions

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 ddrive1, enter ddrive1 as the device name.

Path:

Enter the full UNIX system path to access the specified storage device (for example, /dev/scsi/qtape1).

The UNIX system devices are described in your UNIX System Administrator's Guide.

Description:

Enter a description which will help you identify the location or use of the storage device. For example, tape drive B in computer room 221.

Device type (Select one):

Enter an x in the window next to one of the following appropriate device types.

< > SCSI cartridge tape

< > Floppy disk.

Printer Administration

Purpose

You will assign a name, description, and some options to a printer. The printer then becomes known by CMS and can be used for printing any CMS report or window.

Things to Know Before You Start

- A printer that will be used as a CMS printer must be administered in the UNIX system **before** the CMS printer name can be added or modified. See the *Call Management System Installation and Maintenance for WGS Computers* (585-215-112) and *Call Management System Installation and Maintenance for 3B Computers* (585-215-111) documents for guidelines and procedures on printer installation.
- The CMS printer name must be unique when a new printer is added. However, the same physical printer could have multiple names and options.
- If print jobs are being sent to a printer that is no longer administered, the jobs will print on the system default printer and an error will be logged to the customer error log.

Prerequisite System Administration

- You need **read** permission for the Maintenance subsystem to view printer administration. See Chapter 10, "User Permissions — Feature Access."
- You need **write** permission for the Maintenance subsystem to add, delete, or modify printer administration. See Chapter 10, "User Permissions — Feature Access."

Relationships to Other Subsystems

A CMS printer name can be used as the default printer in the `Set dest` window for reports.

Printer Administration Window

You must fill out this window to assign a name, description, and some printer options to a printer. The printer can then be used by CMS for printing any report or window.

01/30/92 08:30 AM		Call Management System		Window 1 of 4	
Maintenance: Printer Administration				All ACDS	
CMS printer name: printer1				Add	
LP printer name: printer1				Delete	
Description: UNIX system printer1				Find one	
				List all	
IBM graphics characters (y/n): n				Modify	
				Next	
				Previous	
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					

Figure 12-7. Printer Administration Window Example

Field/Action List Usage

Delete

If you try to delete a printer name which is assigned to users, you will receive an Acknowledgement asking if you still want to delete the printer. Print jobs will be sent to the system default printer if you delete the printer.

Field Descriptions

CMS printer name:

Enter a unique name for this printer.

LP printer name:

Enter the LP (UNIX system printer) printer name that corresponds to the CMS printer name.



NOTE:

This printer must be previously administered in the UNIX system before the CMS printer name can be added or modified. See the *Call Management System Installation and Maintenance for WGS Computers* (585-215-112) and *Call Management System Installation and Maintenance for 3B Computers* (585-215-111) documents for guidelines and procedures.

Description: (Optional field)

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 "no."

Page length (Select one): (Default is 11 inches.)

Enter an x next to the desired length of paper or select **Other** and enter the length in inches.

CMS assumes 6 lines per inch and will format 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 **Normal** or **Other**. After **Other**, you can specify a print type like pica, elite, or compressed.

Banners (y/n) (Default is no.)

Enter a y (yes) if you want banners. A banner is a piece of paper that will separate different printer jobs.

Connection Status

Purpose

You will be able to monitor the data link between the CMS processor and the switch. This window also displays the current status of the application, session, and connection layers of the link between the switch and CMS.

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 **read** permission for the Maintenance subsystem to view the Connection Status window. See Chapter 10, “User Permissions — Feature Access.”

Connection Status Window

You must fill out the ACD field to view and monitor the data link between the CMS processor and the switch.

03/16/9208:30 AMCall Management SystemWindows 1 of 4

Maintenance: Connection Status

ACD: ACD1
Application: data transfer
Session: data transfer
Connection: operational
Date/Time: 3/12/92 9:47 AM
Errors:

Find one
List all
Next
Previous

Figure 12-8. Connection Status Window Example

Field Descriptions

ACD:

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 the CMS. Possible status messages for the `Application:` field are:

- `waiting session` — This message indicates that the Application layer is inactive. This is the state of the Application layer when the system is first powered on.
- `translation pumpup` — This message indicates that the CMS processor is receiving translations from the switch. Translations are needed for CMS to correctly track the ACD calls coming from switch.
- `data transfer` — This message indicates that the Application layer can receive and transmit data successfully.
- `not collecting data` — This message indicates that data collection has been turned off via the Data Collection window (see Chapter 11, "Data Collection"). This is done if the link needs to be taken down to alter CMS. To resume data collection, go to the Data Collection window in the System Setup subsystem and turn **on** data collection.
- `busied out (switch)` — This message indicates that the data link between the CMS processor and the switch has been busied out from the switch side, usually to alter switch translations.

Session: (Display only)

The current status of the session layer of the link between the switch and the CMS. Possible status messages for the `Session:` field are:

- `quiescent` — This message indicates that the Session layer is inactive. This is the state of the Session layer when the system is first powered on.

-
- **waiting acceptance** — This message 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** — This message 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 CMS. Possible status messages for the **Connection:** field are:

- **quiescent** — This message indicates that the Connection is inactive. This is the state of the Connection when the system is first powered on.
- **out of order** — This message indicates that there is something wrong with the connection to the switch. For example, the cable is not connected between the switch and the CMS processor.
- **operational** — This message indicates that the Connection is able to transmit information physically between the switch and the 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 CMS is brought up. If CMS is brought up and the link to the ACD is down, CMS will use the UNIX system time until the link is re-established.

Errors: (Display only)

Displays any errors found.

ACD Status

Purpose

The ACD Status window displays information about the current ACD selected in the window. From this window, you can view the various items which CMS is measuring. Among these items are the number of splits, agents logged in, trunk groups, trunks, VDNs, vectors, and measured splits.

Things to Know Before You Start

- The **Measured splits:** field can only be modified if you have a Generic 2.1 or System 85 R2V4 switch, and you select the **Translations** action list item.
- 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 10, User Permissions — Feature Access.
- You need **read** permission for the Maintenance subsystem to view the ACD Status window. See Chapter 10, User Permissions — Feature Access.

ACD Status Window

You must fill out the ACD field to view information about the current ACD.

03/16/92	08:30 AM	Call Management System	Windows 1 of 4

Maintenance: ACD Status

ACD: ACD1	Find one
CMS is measuring:	List all
Splits: 22	Next
Split members, summed over all splits: 550	Previous
Trunk groups: 26	Translations
Trunks: 1500	
VDNs: 43	
Vectors: 512	
Measured splits: ____	
Errors:	

Figure 12-9. ACD Status Window Example

Field/Action List Usage

Translations

When the Translations action list selection is made, CMS requests a full set of translations if the data collection for the ACD is on. An acknowledge window will appear indicating to you that data will be lost during the translations pump up. The acknowledge window will ask you if you would like to proceed. If the link to the switch is not up when you request the translations, the status line will show Failed and the actual error message will be 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.

Find one/List all

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 will display the link status.

Field Descriptions

ACD:

Enter the ACD name or number whose status you would like to check.

CMS is measuring: (Display only)

Splits: (Display only)

The number of splits currently being measured by CMS.

Split members, summed over all splits: (Display only)

The number of agents that can be logged in on this ACD.

Trunk groups: (Display only)

The number of trunk groups currently being measured by CMS.

Trunks: (Display only)

The number of trunks currently being measured by CMS.

VDNs: (Display only)

The number of VDNs currently being measured on this ACD.

Vectors: (Display only)

The number of vectors currently being 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 R2V4 or Generic 2.1 System. If these switches are being used, then 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 `Translations` action list item.

Errors: (Display only)

Displays any errors found.

Archiving Status

Purpose

Use the Archiving Status window 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

- 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:
 - **Success:** 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 not yet run.
 - **Running:** The archive is currently running.
- Archive means the CMS is storing your interval, daily, weekly, and monthly data in the appropriate CMS database tables.

Prerequisite System Administration

You need **read** permission for the Maintenance subsystem to view the Archiving Status window. See Chapter 10, User Permissions — Feature Access.

Archiving Status Window

You must select the **List all** action item to view the last archiving status for interval daily, weekly, and/or monthly data.

The screenshot shows a window titled "Call Management System" with a status bar at the top displaying "03/17/92 12:30 PM" and "Windows 1 of 4". The main content area is titled "Maintenance: Archiving Status". It contains a form with the following elements:

- A text field labeled "ACD:" with the value "1" entered.
- A button labeled "List all" to the right of the ACD field.
- A section titled "Archiving type (Select any you wish):" containing a list of options, each with a checkbox and the word "x" in brackets:
 - ☒ Interval
 - ☒ Daily
 - ☒ Weekly
 - ☒ Monthly

Figure 12-10. Archiving Status Example

Field Descriptions

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 will have to blank out an **x** if you do not want to see the status on all archiving types.

Archiving Status List All Window

The List all window displays the ACD name or number, archiving type, status, date, and time for the last archive.

03/07/92 12:30 PM Call Management System Windows 1 of 4

Maintenance: Archiving Status

ACD: Denver List all

Archiving type (Select any you wish):
☒ Interval
☒ Daily
☒ Weekly
☒ Monthly

Maintenance: Archiving Status: List all

<u>ACD</u>	<u>Archiving type</u>	<u>Status</u>	<u>Date</u>	<u>Time</u>
Denver	Interval	Success	03/ 4/92	3:30 AM
Denver	Daily	Failure	03/ 6/92	12:35 AM
Denver	Weekly	Not run	03/ 3/92	2:35 AM
Denver	Monthly	Running	03/ 1/92	4:35 AM

Figure 12-11. Archiving Status — List All Example

Error Log

Purpose

The Error Log Report displays a chronological list of warnings, information, and errors detected by 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.

Things to Know Before You Start

- The Error Log can contain 500 records. When the Error Log reaches 500 records, the log will roll over. The oldest record will then be overwritten by the newest record.
- The Error Log report displays the entries in a reverse time order. In other words, the most recent entry will be displayed first. You will be 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 10, User Permissions — Feature Access.

Error Log Input Window

You must fill out this window to view the Error Log Report.

03/10/92 08:30 AM Call Management System Windows 1 of 4	
Maint: Error Log Report: Input All ACDs	
ACD: _____	Run
Error codes: _____	Set dest
Severity: _____	
Dates: _____	
Destination is terminal	

Figure 12-12. Error Log Input Window Example

Field Descriptions

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 which 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 will get all errors.

Severity: (Optional)

Enter the severity of the error in all capital letters (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.

Error Log Report

The error log report displays a chronological list of unusual conditions, warnings, information, and errors detected by CMS. The entries in the chronological output are displayed in a "reverse time" order. In other words, the most recent entry will be displayed first.

Following the specific fields, a short description of the error will be displayed on the report to help you identify (more specifically) where the error occurred. The error codes and messages are listed at the end of this section.

Error Log Report						Printed: 11/ 7/91 10:56 AM
Error Code	Date Occurred	Time Occurred	# Times Occur	ACD	Severity	
2000	11/ 7/91	10:03 AM	1	1	INFO	Could not run timetable -- 1Daily should have ran --Thu Nov 7 00:35:00 1991 user id - cms
1350	10/31/91	12:06 PM	1	1	ERROR	GENERAL error internal to process: Internal failure in command: /bin/sh
1350	10/28/91	11:49 AM	1	1	ERROR	GENERAL error internal to process: Internal failure in command: passwd cms
1407	10/25/91	8:41 AM	1	1	ERROR	SPI timer expired error: there is no response from the switch

Figure 12-13. Error Log Report Example

Table 12-1. Error Log Report Description

Report Heading	What It Means
Error Code	Displays the unique identifier which associates the recorded error with a particular instance. This unique identifier allows you to identify each instance of the error when discussing the error with AT&T Services personnel or other CMS administrators.
Date Occurred	Displays the date that the error occurred. The date is displayed in the MM/DD/YY format.
Time Occurred	Displays the time that the error last occurred. The time is displayed in the xx:xx xM format.
# Times Occur	Displays the number of times that this error has occurred on this day.
ACD	Displays the ACD number for which the error occurred. If you are not using a multi-ACD environment, this field will always display the same ACD number.
Severity	Displays the registered severity of the error code in capital letters (ALARM, ERROR, or INFO).

Error Log Messages

The error log messages are listed numerically by error code. Each error is in bold type and represents the error code portion of the message with specific information (if any) following in constant width type. In most cases, the action to fix the error is listed with the error message; if it isn't, see *What to Do?* under the error message.

⇒ NOTE:

If you see a reference to a **task number** in the error log, mention this number to services when you call. The number is internal to CMS.

Table 12-2. Error Codes and Messages

Error Code	Message/Reason/Action
500	UNIX error on OPEN, file: <i>Reason for Error</i> — This error is logged when a <save> has been done on a timetable and the timetable is unable to write the changes. Call services.
505	UNIX error on WRITE, file: <filename>. File system may be out of space. <i>Reason for Error</i> — This error is logged when using the Set dest action list item is sent to a file.
555	You could receive any of the following error messages with error code 555. ■ UNIX error on EXEC Couldn't execute the following command: <command> <i>Reason for Error</i> — The file doesn't exist or is not executable. ■ UNIX error on EXEC CMS couldn't run because crt_io_man wouldn't execute <i>What to Do?</i> — Call services.
556	You could receive any of the following error messages with error code 556. ■ UNIX error on FORK CMS couldn't run because the system was too busy. <i>What to Do?</i> — Try again. If second attempt fails, reduce CMS activity and call services. ■ UNIX error on FORK UNIX process limit exceeded, system is too busy. <i>What to Do?</i> — Call services. ■ UNIX error on FORK CMS couldn't run <information> because the system was too busy <i>What to Do?</i> — Call services.

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
557	You could receive any of the following error messages with error code 557. UNIX call error: UNIX process limit exceeded. System is too busy. <i>Reason for Error</i> — This error message is logged when you delete a user or you are adding a user. <i>What to Do?</i> — Call services. UNIX call error: <i>Reason for Error</i> — This error is logged when a user is removed via the User Data screen.
1001	UNIX error on NEW: VDN numbering sequence has changed. Clean up VDN exceptions. <i>Reasons for Error</i> — This error is logged when the switch configuration for VDNs has drastically changed. The VDN exceptions administered must be removed.
1050	INFORMIX SQL syntax error: : syntax error near ' <text information> ' <i>Reason for Error</i> — This error should only occur when a custom report is run and there is a syntax error in the INFORMIX query.
1053	INFORMIX insert error: Agent Trace data not being stored. Call Services.
1100	IPC error on messages: message queue <x> is <%y full <i>What to do?</i> — Call services.
1302	PROCESS COMMUNICATIONS (PO) library error, function: Dumping exception messages on the floor. <i>What to do?</i> — Call services.

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1350	You could receive any of the following error messages with error code 1350. ■ GENERAL error internal to process: Internal failure in command: <command> (command exited non-zero) <i>Reason for Error</i> — UNIX system command exited nonzero for example, Main Menu Addition, UNIX system, Password. <i>What to Do?</i> — Call services. ■ GENERAL error internal to process: Update failure for <window_title>. Too much data. Try again with a more restrictive search. (INFO) ■ GENERAL error internal to process: disk may be full. (INFO) <i>What to do?</i> — Call services. ■ GENERAL error internal to process: CMS task limit exceeded, system is too busy. <i>What to Do?</i> — Call services.
1351	You could receive any of the following error messages with error code 1351. ■ GENERAL error in process interface: Received message from AAR, Activate Agent Trace screen timed-out before it received response. Timeout may be too short. Activate Agent Trace request failed. Try again. (INFO) ■ GENERAL error in process interface: stopping task <task_id> (pid <pid>) to free up message queue <i>What to Do?</i> — Call Services. If it keeps occurring, reduce CMS activity (for example, real-time reports, agent traces, etc.).
1400	SPI session error: data collection session is down <i>What to Do?</i> — Call services.
1407	SPI timer expired error: there is no response from the switch <i>What to Do?</i> — Call services.

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1409	You could receive any of the following error messages with error code 1409. ■ SPI ACD administration error: split profile admin may have been lost (INFO) ■ SPI ACD administration error: vdn profile admin may have been lost (INFO) <i>What to Do?</i> — Check your call profile administration. If incorrect, readminister.
1501	SCREEN MANAGER error: system may be overloaded by real-time reports behind by: <XXX> seconds (INFO) <i>What to do?</i> — Reduce the number of real-time reports currently running.
1600	FORECAST status: Forecast Manager failed for <date>
1700	BACKUP Process out of sync. Contact Services.
1701	BACKUP Process out of memory. Contact Services.
1702	BACKUP Process startup failed. Contact Services.
1703	BACKUP Volume access failed. Retry Backup.
1704	BACKUP Volume check failed. Retry Backup.
1705	BACKUP Volume verification failed. Retry Backup.
1706	BACKUP Table backup failed. Retry Backup. Table=<table name>
1707	BACKUP Volume span failed. Retry Backup.
1708	BACKUP Error in process communication. Retry Backup.
1709	BACKUP Backup history update failed. Retry Backup.

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1710	BACKUP Process in need of service. Please check the Backup screen.
1750	BACKUP Screen startup failed. Contact Services.
1751	BACKUP Screen execution failed. Retry Backup.
1800	RESTORE Process out of sync. Contact Services.
1801	RESTORE Process out of memory. Contact Services.
1802	RESTORE Process startup failed. Contact Services.
1803	RESTORE Volume access failed. Retry Restore.
1804	RESTORE Error in process communication. Retry Restore.
1805	RESTORE Table restore failed. Retry Restore. Table=<table name>
1850	RESTORE Screen startup failed. Contact Services.
1851	RESTORE Screen execution failed. Retry Restore.
1900	SYSTEM MESSAGE OVERLOAD: Agent Trace (AAR) is overloaded, some agent trace data lost. Turn off traces for some agents to prevent possible further overloading.

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
1901	You could receive any of the following error messages with error code 1901. ■ FULL DISK ERROR: <i>What to Do?</i> — Call services. ■ FULL DISK ERROR: can not create R2-R3 Migration temporary tables. <i>What to Do?</i> — Call services. ■ FULL DISK ERROR: Out of disk space. Data Collection failed (Archiver). <i>What to Do?</i> — Call services. ■ FULL DISK ERROR: Out of disk space. Data Collection failed (Harchiver). Call Services ■ FULL DISK ERROR: Agent Trace data not being stored. Call Services. ■ FULL DISK ERROR: Call records not being stored. Call Services. ■ FULL DISK ERROR: cannot write to <path> <i>Reason for Error</i> — When changing the Master ACD in the CMS state fails. <i>What to Do?</i> — Call services. ■ FULL DISK ERROR: Not enough room to archive on file system: <file_system> <i>What to do?</i> — Call services. ■ FULL DISK ERROR: Not enought room for interval archive on file system: <file_system> <i>What to do?</i> — Call services.

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2000	You could receive any of the following error messages with error code 2000. ■ Could not run timetable -- <timetable name> should have ran -- <date> user id - <login name> ■ Could not run timetable : don't run time table, in single user timetable = <timetable name> <login name> ■ Could not run timetable : failed to execute timetable = <timetable name> <login name> ■ Could not run timetable Your timetable <timetable name> failed on task <x> of <y> with taskid <task_id> because: The Set dest action required to bring up the window needed for this task failed. (INFO) <i>What to Do?</i> — Change the Set Dest window for the task on the timetable. ■ Could not run timetable Your timetable <timetable name> failed on task <x> of <y> with taskid <task_id> because: User doesn't have permission for a given task on the timetable. (INFO) <i>Reason for Error</i> — This error is logged when a <save> has been done on a timetable and the timetable is unable to write the changes. <i>What to Do?</i> — Change permissions. ■ Could not run timetable This application is already running and only one can run at a time. (INFO) ■ Could not run timetable <Information why time table couldn't run>. Aborting Timetable... (INFO)

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2100	You could receive any of the following error messages with error code 2100. ■ Unable to execute switch protocol interpreter. Data collection down. Call Services. ■ Unable to execute agent activity recorder. Agent trace data is not being recorded. Call Services. ■ Unable to execute data archiver. Interval data is not being recorded. Call Services. ■ Unable to execute call history recorder. Call history records are not being recorded. Call Services. ■ Unable to execute timer manager. Timetables and exceptions are not being processed. Call Services. ■ Unable to execute timetable manager. Timetables are not being run. Call Services. ■ Unable to execute real-time database manager. Real-time reports cannot run. Call Services. ■ Unable to execute exception distributor. Exceptions are not being processed. Call Services. ■ Unable to execute INFORMIX database manager. Call Services. ■ Unable to execute real-time report manager. Real-time reports cannot run. Call Services.
2200	■ R2 Migration failed. Consult Migration log. Contact Services. Table = N/A ■ R2 Migration failed. Consult Migration log. Contact Services. Table = <tablename>

Table 12-2. Error Codes and Messages (Contd)

Error Code	Message/Reason/Action
2300	INTERVAL MIGRATION: Interval migration was cancelled before it completed. Restart it from the Storage Intervals screen to complete the migration. (INFO) <i>Reason for Error</i> — This error is logged when the storage interval has been modified and the interval migration has started, but was stopped before it was finished. This will happen if you bring the system into “Single-User Mode” before interval migration has completed.
2400	You could receive any of the following error messages with error code 2400. ■ FREE SPACE ALLOCATION: attempt to move table <table_name> to file system <file_system> failed. The system will try to return the table to its original location. <i>What to do?</i> — Call services. ■ FREE SPACE ALLOCATION: attempt to move table <table_name> to file system <file_system> failed. Archiving of historical data may fail. <i>What to do?</i> — Call services. ■ FREE SPACE ALLOCATION: recovery from earlier failures was successful (INFO) <i>What to do?</i> — Call services. ■ FREE SPACE ALLOCATION: failed to update INFORMIX filesys table. <i>What to do?</i> — Call services. ■ FREE SPACE ALLOCATION: failed to update file used to locate database tables (systables). Archiving of historical data may fail. <i>What to do?</i> — Call services. ■ FREE SPACE ALLOCATION: attempt to return table <table_name.dat> to file system <fileL_system> failed. Archiving of historical data may fail. (ALARM) <i>What to do?</i> — Call services.

General Information

You can access the UNIX system by logging in as *root* at any terminal or by selecting the UNIX system option from the **Commands** SLK menu. Figure 13-1 illustrates access to the UNIX system from the **Commands** SLK menu.



CAUTION:

Be careful when accessing the UNIX system to execute UNIX system commands. Damage can result to CMS because of incorrect use of the UNIX system commands. Before you execute any UNIX 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 processes.



NOTE:

To perform some of the procedures in the UNIX system section of this chapter, you will need to know the *root* password for your system.



\$

Figure 13-1. UNIX System Screen

Accessing the UNIX System

1	Press the Commands SLK.	→	<i>The Commands menu appears.</i>
2	Select UNIX (r) system and press Return .	→	<i>The screen clears and a \$ prompt appears.</i>
3	Do any desired work in the UNIX system.		
4	To return to CMS, at the prompt, type the word exit and press Return .	→	<i>You return to your current open window in CMS.</i>

Viewing a UNIX System File

At times you may want to view certain UNIX system files. The following command displays data one terminal screen at a time.

Printer Errors

Enter the following command to view printer errors.

```
$ pg /user/elog/printer.errors
```

⇒ NOTE:

If for any reason a printer jams, you must resubmit any print request that did not print.

Historical Reports

Enter the following command to view an historical report sent to a file. <filename> is the name you enter for the file in the `Send to` window. This command will show you the file one page (screen) at a time.

```
$ pg <filename>
```

Printer Commands

Printer Administration

Normally printer administration is done during CMS installation, but sometimes additional printers may be added later. See the *CMS Installation and Maintenance* document specific to your system 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 commands follow for each of these.

⇒ NOTE:

If for any reason a printer jams, you must resubmit any print request that did not print.

Checking Printer Status

This 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/lpmove <dist1> <dist2>
```



NOTE:

dist1 is the name of the current printer; dist2 is the name of the 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 and put back online.

UNIX 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 following commands.

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/lpstart
```

Backing Up the File Systems From the UNIX System Environment

The file systems on the 6386 WGS computer should be backed up in the following situations:

- After the R3 CMS software has been initially installed and tested



NOTE:

The CMS historical data should also be backed up by using the “Back Up Data” window in the “Maintenance” subsystem before you turn a new system over to the CMS administrator. (Refer to the appropriate section in the *CMS Administration* (585-215-511) document for instructions.)

- Before and after the CMS software has been upgraded to a new base load
- Before and after the CMS software has been field updated.

The number of cartridge tapes required to back up the CMS software will vary depending how many file systems the CMS software resides on:

- */cms* is on disk drive 1.
- */cms1* is on disk drive 2, if equipped.
- */cms2* is on disk drive 3, if equipped.
- */cms3* is on disk drive 4, if equipped.
- */cms4* 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 CMS Management menu:

```
# cmsadm
```

The CMS Administration menu displays:

```

                                CALL MANAGEMENT SYSTEM ADMINISTRATION

1 add_agent      Increase max. number of agents allowed by CMS
2 backup         Filesystem backup
3 pkg_display    Display installed feature packages
4 pkg_install    Install a feature package
5 pkg_remove     Remove a feature package
6 run_cms        Turn CMS On or Off
7 setup          Setup the initial CMS configuration
8 swinfo         Display switch information
9 swsetup        Change switch information
10 update_mgmt   Commands for managing software updates

Enter a number, a name, the initial part of a name, or
? or <number>? for HELP, q to QUIT:
```

Enter 2 to select the backup option.

The program responds:

Insert tape, press ENTER when ready:

3. Insert the tape into the appropriate drive and press the **RETURN** key.

The program responds:

Backing up files ...

After certain files have been backed up, the program responds:

CMS will be turned off automatically for the remainder of the backup.
Press ENTER to proceed.



NOTE:

If CMS is currently running, the backup option will automatically turn CMS off. If CMS is not currently running, the screens related to turning CMS being turned off will not be seen.

4. Press the **RETURN** key to proceed with the remainder of the backup.

The program responds:

```
*** Turning off CMS, Please wait ***
. . . . .

*** CMS is now off ***

XXXXXX blocks

Please wait for initialization
. . .

*** CMS is now up ***

Restore must be performed as follows:
        cpio -icBmud -C 10240 -I /dev/scsi/qtape1
Please make a note of this on the tape label.

Press the RETURN key to see the cmsadm menu [?, q]:
```

5. Enter `q` to quit and return to the system prompt.
6. Write down the appropriate restore command as it was listed on the screen at the conclusion of the backup (see previous screen example).

Restoring the File Systems From the UNIX System Environment

The file systems on the 6386 WGS computer can be restored when an accidental loss of data occurs.

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.

Changing a CMS User's Password

To change a forgotten password for a CMS user, do the following:

- 1

Press the **Commands** SLK.

→

The Commands menu appears.
- 2

Select UNIX (r) system and press **RETURN**.

→

The screen clears and a \$ prompt appears.

\$
- 3

At the \$ prompt, enter **su root** and press **RETURN** to become a superuser.

→

The following appears.

#
- 4

At the # prompt, enter the root password and press **RETURN**.
- 5

At the # prompt, enter **passwd userid** (*userid* is the ID of the user who has forgotten the password), and press **RETURN**.

→

You will will be prompted to enter a new password
- 6

Enter a new password for the user, and press **RETURN**.

→

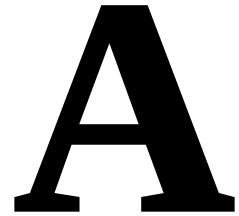
The following appears.

#
- 7

Tell the user what the password is.

-
8 At the #, enter passwd -f userid (userid is the ID of the user who has forgotten the password) and press RETURN.	→	The next time this user logs in, the user will be forced to enter a new password. This allows the user to choose a password which is different from the one you just assigned.	
8 To return to CMS, at the prompt, type the word exit and press RETURN.	→	<i>You return to your current open window in CMS.</i>	

Database Items and Calculations



General Information

This appendix describes the CMS database tables, the items in the database tables, and the standard dictionary calculations that use the database items.

Database items are grouped by report type (real time and historical) and ACD element (split, agent, trunk group, trunk, vector, VDN, etc.) and are listed alphabetically. Many database items appear in more than one database table. Database items that appear in the description of other database items are presented in bold-face type.

Each real-time database item contains one of the following types of data:

C	=	Cumulative data. This type of data accumulates throughout the collection interval. Most real-time database items contain cumulative data.
A	=	Administrative data. This type of data is administered on the switch or on CMS. For example, the database item POSITIONS in the split real-time table contains the number of agent extensions that are currently assigned to the specified split on the switch.
S	=	Status data. This type of data gives the current status, that is a snapshot, of a particular ACD element. For example, the database item INQUEUE in the split real-time table contains the number of split calls currently waiting in queue.

The letter C, A, or S appears in the Type column for each real-time database item.

In addition to the types of data described above, items in the CMS database can be either call-based or interval-based. Most 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.

Database Rules

Abandoned Calls

In split and agent tables, abandoned calls are split calls that were abandoned while waiting in queue or ringing an agent voice terminal.

In trunk and trunk-group tables, abandoned calls include split and direct agent calls that were abandoned while ringing, calls that were abandoned while being processed by a vector, calls that were abandoned while being carried by a VDN (System 85 R2V4, Generic 2, and Generic 3), and non-ACD calls that were abandoned (Generic 2.2 and Generic 3).

In vector tables, abandoned calls include split, direct agent, and non-ACD calls that were abandoned while being processed by a vector.

In VDN tables, abandoned calls include calls that were abandoned while being processed by the associated vector and, for Generic 2.2 and Generic 3, calls that were abandoned while being carried by the VDN (for example, “route to” extension calls that were abandoned).

**Adjunct-Placed and
Adjunct-Routed Calls**

For Generic 2.2 with the ASAI Gateway Interface feature and Generic 3 with the ASAI feature, CMS tracks outbound calls placed by an adjunct processor or host computer on behalf of an agent and adjunct-routed calls (Generic 3 only). Database items that start with **O_** track outbound split calls and database items that contain **ADJ** track adjunct-routed calls.

Adjunct-placed outbound split calls are also included as part of ACD database items such as **ACDCALLS**, **ACDTIME**, and **ACWTIME**. Inbound split calls can be calculated as **ACDCALLS - O_ ACDCALLS**.

**Agents in Multiple
Splits**

For Generic 1 and Generic 3, agents can be logged into as many as three splits. Agents logged into multiple splits are tracked as a single agent and must use the same login ID to log into each split. Database items that start with **TI_** track the time an agent spends in the various work modes independent of the split in which the agent is working. An agent must be in AUX (Auxiliary work) in all splits to accumulate AUX time. If an agent is available or handling a call for another split, **OTHER** time accumulates for the split in which the agent is in AUX. While an agent is in AUX or available, personal calls are pegged to the first split the agent logs into.

Direct Agent Calls

In agent tables, database items that start with **DA_** track direct agent calls. Direct agent calls are not included in ACD, RING, or ACW database items (since they are calls to the agent, not to the split).

In split tables, the database item **I_ OTHERTIME** tracks agents handling direct agent calls.

In trunk, trunk group, vector, and VDN tables, direct agent calls are included in ACD, RING, and ACW database items.

Hold Tracking

For System 85 R2V4 and Generic 2, CMS tracks split calls that are put on hold. For Generic 3, CMS tracks all calls that are put on hold. For Generic 1, CMS tracks hold time for ACD calls as talk time. For System 85 R2V4, Generic 2.1, and Generic 1, calls that are placed or received while a call is on hold are not tracked.

The CMS split tables only track hold time for split calls.

Look-Ahead Interflow Calls

For Generic 2.2 and Generic 3, CMS tracks look-ahead interflow calls separately (database items that start with **LOOK**) and as part of interflow calls. For System 85 R2V4 and Generic 2.1, CMS tracks look-ahead interflow calls as part of interflow calls.

Multiple-Split Queuing

For Generic 1 and Generic 3, calls can be queued to as many as three splits simultaneously. For the first split to which a call is queued (called the primary split), CMS pegs an answer, outflow (leaves vector processing or is answered by an agent in another split), or abandon. For the second or third split to which a call is queued, CMS pegs an answer and an inflow if the call is answered in that split. If the call is answered in another split, the call outflows, or the caller abandons, CMS pegs a dequeued call for the second and third splits.

Personal-Call Tracking

For Generic 3, CMS tracks hold time, transfers, and conferences for personal calls (extension calls). For Generic 2.2 and Generic 3, ACD and non-ACD calls and time and abandoned calls and time for "route to extension" calls are tracked in the VDN database tables. For Generic 2.2 and Generic 3, picked-up calls (using the Call Pickup feature) are tracked as personal calls, even if an ACD call is picked up by an agent in the same split.

Ring Tracking

For System 85 R2V4, Generic 2, and Generic 3, CMS has real-time database items that track the current number of agents with split and direct agent calls ringing at their voice terminals, and historical database items that track the amount of time agents let split and direct agent calls ring at their voice terminals.

**Transfer and
Conference Tracking**

For Generic 2.2, CMS tracks transfers and conferences for ACD calls. For Generic 3, transfers and conferences for all calls made by measured agents are tracked. For System 85 R2V4 and Generic 2.1, transfers to a VDN are tracked in the VDN tables.

Database Table Names

To select data for custom reports, you must use the names listed in Tables A-1 and A-2. The database items are described in later sections of this appendix.

Table A-1. Real-Time Table Names

Name	Data Stored
<i>csplit</i>	Split data for the current interval.
<i>psplit</i>	Split data for the previous interval.
<i>cagent</i>	Agent data for the current interval.
<i>pagent</i>	Agent data for the previous interval.
<i>ctkgrp</i>	Trunk group data for the current interval.
<i>ptkgrp</i>	Trunk group data for the previous interval.
<i>ctrunk</i>	Trunk data for the current interval.
<i>ptrunk</i>	Trunk data for the previous interval.
<i>cvector</i>	Vector data for the current interval.
<i>pvector</i>	Vector data for the previous interval.
<i>cvdn</i>	VDN data for the current interval.
<i>pvdn</i>	VDN data for the previous interval.
<i>ccwc</i>	Call Work Codes (CWC) data for the current interval.
<i>pcwc</i>	CWC data for the previous interval.

Table A-2. Historical Table Names

Name	Data Stored
<i>hsplit</i>	Split data for each intrahour interval.
<i>dsplit</i>	Split data summarized by day.
<i>wsplit</i>	Split data summarized by week.
<i>msplit</i>	Split data summarized by month.
<i>hagent</i>	Agent data for each intrahour interval.
<i>dagent</i>	Agent data summarized by day.
<i>wagent</i>	Agent data summarized by week.
<i>magent</i>	Agent data summarized by month.
<i>htkgrp</i>	Trunk group data for each intrahour interval.
<i>dtkgrp</i>	Trunk group data summarized by day.
<i>wtkgrp</i>	Trunk group data summarized by week.
<i>mtkgrp</i>	Trunk group data summarized by month.
<i>htrunk</i>	Trunk data for each intrahour interval.
<i>dtrunk</i>	Trunk data summarized by day.
<i>wtrunk</i>	Trunk data summarized by week.
<i>mtrunk</i>	Trunk data summarized by month.
<i>hvector</i>	Vector data for each intrahour interval.
<i>dvector</i>	Vector data summarized by day.
<i>wvector</i>	Vector data summarized by week.
<i>mvector</i>	Vector data summarized by month.
<i>hvdn</i>	VDN data for each intrahour interval.
<i>dvdn</i>	VDN data summarized by day.
<i>wvdn</i>	VDN data summarized by week.
<i>mvdn</i>	VDN data summarized by month.
<i>hcwc</i>	Call Work Codes (CWC) data for each intrahour interval.
<i>dcwc</i>	CWC data summarized by day.
<i>wcwc</i>	CWC data summarized by week.
<i>mcwc</i>	CWC data summarized by month.
<i>agex</i>	Agent exceptions.
<i>spex</i>	Split exceptions.
<i>tgex</i>	Trunk group exceptions.
<i>vecex</i>	Vector exceptions.
<i>vdnex</i>	VDN exceptions.
<i>linkex</i>	Link down exceptions.
<i>mctex</i>	Malicious call trace exceptions.
<i>f_cday</i>	Forecast current day configuration data — by split.
<i>f_cdayrep</i>	Current day forecast data — by split.

Real-Time Database Items

Except status items, the following descriptions apply to both the current interval and the previous interval real-time tables. Status items only apply to current interval real-time tables.

Split Real-Time Database Items

Split real-time database items apply to the Current Interval Split (csplit) and Previous Interval Split (psplit) tables.

Table A-3. Split Real-Time Database Items

Database Item	Description	Type
ABNCALLS	Number of CALLSOFFERED that were abandoned while in queue or ringing at an agent position. When a call is queued to multiple splits (Generic 3 only), an abandon is only pegged for the primary split (the first split to which a call is queued).	C
ABNCALLS1-10	Number of ABNCALLS 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 were abandoned while ringing at an agent position. This database item is only available with Generic 2 and Generic 3.	C
ABNTIME	Time callers waited in queue or ringing before abandoning.	C
ACCEPTABLE	Number of ACDCALLS answered within the acceptable service level (as defined on the ACD Administration: Call Profile window).	C
ACD	The ACD for which data was collected.	A
ACDCALLS	Number of CALLSOFFERED that were answered by an agent in the split	C
ACDCALLS1-10	Number of ACDCALLS during the collection interval that were answered (ANSTIME) 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

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
ACDTIME	Time agents spent talking on ACDCALLS (does not include HOLDTIME).	C
ACWINCALLS	Number of inbound extension calls (split and direct agent calls) received by agents while in ACW (after call work).	C
ACWINTIME	Time agents spent talking on ACWINCALLS (does not include hold time on Generic 3).	C
ACWOUTADJCALLS	Number of ACWOUTCALLS an adjunct processor or host computer placed on behalf of an agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
ACWOUTCALLS	Number of outbound extension calls (split and direct agent calls) made by agents while in ACW.	C
ACWOUTOFFCALLS	Number of ACWOUTCALLS that were made to a destination outside the switch. This database item is only available with Generic 2.2 and Generic 3.	C
ACWOUTOFFTIME	Time agents spent talking on ACWOUTOFFCALLS (does not include hold time). This database item is only available with Generic 2.2 and Generic 3.	C
ACWOUTTIME	Time agents spent talking on ACWOUTCALLS (does not include hold time on Generic 3).	C
ACWTIME	Duration of after call work associated with ACDCALLS .	C
AGINRING	Current number of POSITIONS at which split calls are ringing.	S
ANSTIME	Time ACDCALLS waited in queue or ringing before an agent answered.	C
ASSISTS	Number of times agents requested assistance from the split supervisor by pressing the ASSIST button or dialing the supervisor's extension. The agent must be handling an ACD call or in after call work for this item to be recorded.	C
AUXINCALLS	Number of inbound extension calls received by agents while in AUX (auxiliary work) or AVAILABLE.	C
AUXINTIME	Time agents spent talking on AUXINCALLS (does not include hold time on Generic 3).	C

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
AUXOUTADJCALLS	Number of AUXOUTCALLS an adjunct processor or host computer placed on behalf of an agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
AUXOUTCALLS	Number of outbound extension calls made by agents while in AUX (auxiliary work) or AVAILABLE.	C
AUXOUTOFFCALLS	Number of AUXOUTCALLS that were made to a destination outside the switch. This database item is only available with Generic 2.2 and Generic 3.	C
AUXOUTOFFTIME	Time agents spent talking on AUXOUTOFFCALLS (does not include hold time). This database item is only available with Generic 2.2 and Generic 3.	C
AUXOUTTIME	Time agents spent talking on AUXOUTCALLS (does not include hold time on Generic 3).	C
AVAILABLE	Current number of POSITIONS that are available in this split.	S
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a "queue to main split" command. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C
BUSYCALLS	Number of CALLSOFFERED that were given a busy signal by the switch.	C
BUSYTIME	Time the call spent in queue before a busy signal was given.	C
CALLSOFFERED	Number of calls offered to the split. CALLSOFFERED = ACDCALLS + ABNCALLS + BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUECALLS	C
CONFERENCE	Number of ACDCALLS that were conferenced (Generic 2.2, Generic 3).	C

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
DA_INACW	Current number of POSITIONS that are in after call work associated with direct agent calls. Total number of agents in after call work = INACW + DA_INACW . DA_INACW is a subset of OTHER . This database item is only available with Generic 3 switches that have the ASAI feature.	S
DA_INQUEUE	Current number of direct agent calls waiting in this split's queue. This database item is only available with Generic 3 switches that have the ASAI feature.	S
DA_OLDESTCALL	Number of seconds that the oldest direct agent call has been waiting in queue or ringing at an agent position. This database item is only available with Generic 3 switches that have the ASAI feature.	S
DA_ONACD	Current number of POSITIONS that are handling direct agent calls. Total number of agents on ACD calls = ONACD + DA_ONACD . DA_ONACD is a subset of OTHER . This database item is only available with Generic 3 switches that have the ASAI feature.	S
DEQUECALLS	Number of calls that queued to this split and other splits, but were pegged in another split as answered, abandoned, outflowed, busy, or forced disconnect. This database item is only available with Generic 3.	C
DEQUETIME	Time DEQUECALLS waited in this split's queue before dequeuing. This database item is only available with Generic 3.	C
DISCCALLS	Number of CALLSOFFERED that were disconnected by the switch. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C
DISCTIME	Duration of DISCCALLS (from the time the call entered the vector until the end of the announcement, if any). This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
EVENT1-9	Number of times agents pressed a particular stroke count button (buttons 1 to 9) during the collection interval. The agent must be handling an ACD call or in after call work for this item to be recorded. This database item is only available with System 85, Generic 2, and Generic 3 switches.	C
HIGHCALLS	Number of ACDCALLS that queued with high priority and were answered by agents in this split. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C
HOLDABNCALLS	Number of split calls that were abandoned while on hold. This database item is only available with System 85 R2V4, Generic 2, and Generic 3.	C
HOLDCALLS	Number of split calls that were placed on hold. This database item is only available with System 85 R2V4, Generic 2, and Generic 3.	C
HOLDTIME	Time split callers spent on hold. This database item is only available with System 85 R2V4, Generic 2, and Generic 3.	C
I_ACDTIME	Time during the collection interval that POSITIONS were on ACD calls.	C
I_ACWINTIME	Time during the collection interval that POSITIONS were in ACW associated with split or direct agent calls <i>and</i> on inbound extension calls. This database item does not include hold time on Generic 3.	C
I_ACWOUTTIME	Time during the collection interval that POSITIONS were in ACW associated with split or direct agent calls <i>and</i> on outbound extension calls. This database item does not include hold time on Generic 3.	C
I_ACWTIME	Time during the collection interval that POSITIONS were in ACW for split calls.	C
I_AUXINTIME	Time during the collection interval that POSITIONS were in AUX or AVAILABLE <i>and</i> on inbound extension calls. This database item does not include hold time on Generic 3.	C
I_AUXOUTTIME	Time during the collection interval that POSITIONS were in AUX or AVAILABLE <i>and</i> on outbound extension calls. This database item does not include hold time on Generic 3.	C

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
I_AUXTIME	Time during the collection interval that POSITIONS were in AUX. For Generic 1, agents in multiple splits doing work in a split other than this split.	C
I_AVAILTIME	Time during the collection interval that POSITIONS were available for split calls.	C
I_OTHERTIME	Time during the collection interval that POSITIONS were doing other work. For Generic 3, other work includes: while in Auto-In or Manual-In mode, an agent put a call on hold and performed no further action, was on a personal call and this split is not the OLDEST_LOGON , dialed to place a call or activate a feature, or a personal call is ringing with no further activity. For Generic 1, and Generic 3, an agent logged into multiple splits and did work for a split other than this one. For Generic 1, Generic 2, and Generic 3, after pumpup or after an agent logged in, an ASTATE message was not received (the agent is in the UNKNOWN state).	C
I_RINGTIME	Time during the collection interval that POSITIONS had split calls ringing. If an agent changes work modes or makes or answers a personal call, I_RINGTIME stops accumulating. This database item is only available with Generic 2 and Generic 3.	C
I_STAFFTIME	Time during the collection interval that POSITIONS were staffed (logged in).	C
INACW	Current number of POSITIONS that are in ACW associated with split calls (this includes agents on extension calls).	S
INAUX	Current number of POSITIONS that are in AUX for all splits (this includes agents on extension calls).	S
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.	C
INFLOWCALLS	Number of calls that were redirected to the split's queue from another queue. For Generic 3 with Call Vectoring, this includes calls answered by a split other than the first split to which a call queued in a vector. When a call leaves vector processing, the next split to which it queues is not credited with an inflow.	C
INQUEUE	Current number of split calls waiting in queue.	S

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
INRING	Current number of ACD calls ringing at agent positions.	S
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to a destination outside the switch.	C
LOWCALLS	Number of ACDCALLS that queued to the split with low (vectoring) or no (non-vectoring) priority.	C
MAXINQUEUE	The largest number of split calls in queue at any time during the collection interval.	C
MAXOCWTIME	The longest time during the collection interval that a split call waited before an agent answered, the caller abandoned, or the call was redirected, received a busy signal, or was disconnected.	C
MAXSTAFFED	The largest number of POSITIONS that were staffed at any time during the collection interval.	C
MEDCALLS	Number of ACDCALLS that queued to the split with medium or higher priority (on Generic 2/System 85, by way of priority trunks or, with vectoring, medium priority assignments; on Generic 3, by way of Priority Queuing on Intraflow assignment or, with vectoring, medium priority assignments). This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.	C
O_ACDCALLS	Number of outbound calls an adjunct processor or host computer placed on behalf of the split. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_ACDTIME	Time agents spent talking on O_ACDCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_ACWTIME	Duration of all after call work associated with O_ACDCALLS . This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
OLDESTCALL	Number of seconds the oldest split call has been waiting in queue or ringing at an agent position.	S

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
ONACD	Current number of POSITIONS handling inbound and outbound split calls.	S
ONACDOUT	Current number of POSITIONS handling outbound split calls.	S
ONACWIN	Current number of POSITIONS that are in ACW associated with split or direct agent calls <i>and</i> on inbound extension calls.	S
ONACWOUT	Current number of POSITIONS that are in ACW associated with split or direct agent calls <i>and</i> on outbound extension calls.	S
ON AUXIN	Current number of POSITIONS that are in AUX or AVAILABLE <i>and</i> on inbound extension calls.	S
ON AUXOUT	Current number of POSITIONS that are in AUX or AVAILABLE <i>and</i> on outbound extension calls.	S
ONHOLD	Current number of split calls on hold at agent positions. This database item is only available with System 85 R2V4, Generic 2, and Generic 3.	S
OTHER	Current number of POSITIONS doing other work. For Generic 3, other work includes: while in Auto-In or Manual-In mode, an agent put a call on hold and performed no further action, is on a direct agent call or in ACW associated with a direct agent call, dialed to place a call or activate a feature, or a personal call is ringing with no further activity. For Generic 1, and Generic 3, an agent logged into multiple splits and did work for a split other than this one. For Generic 1, Generic 2, and Generic 3, after pumpup or after an agent logged in, an ASTATE message was not received (the agent is in the UNKNOWN state).	S
OUTFLOWCALLS	Number of CALLSOFFERED that were redirected to another destination. For Generic 3 with Call Vectoring and multiple split queuing, this includes calls queued to the primary split and answered in another split.	C
OUTFLOWTIME	Time OUTFLOWCALLS waited in queue or ringing before being redirected.	C

Table A-3. Split Real-Time Database Items (Contd)

Database Item	Description	Type
PERIOD1-9	The 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. CMS counts calls that wait beyond the last increment (PERIOD9) in either ACDCALLS10 or ABNCALLS10 .	A
PERIODCHG	Indicates whether service level increments PERIOD1-9 (as defined on the ACD Administration: Call Profile window) changed during the collection interval or not.	A
POSITIONS	Number of agent extensions that are currently assigned to SPLIT .	A
RINGCALLS	Number of split calls that rang at POSITIONS . This database item is only available with Generic 2 and Generic 3.	C
RINGTIME	Time split calls spent ringing at agent voice terminals. This database item is only available with Generic 2 and Generic 3.	C
SERVICELEVEL	Number of seconds within which calls must be answered to be considered acceptable (as defined on the ACD Administration: Call Profile window).	A
SPLIT	The split number for which data was collected.	A
STAFFED	Current number of POSITIONS that are staffed (logged in). STAFFED = AVAILABLE + AGINRING + ONACD + INACW + INAUX + OTHER	S
SVCLEVELCHG	Indicates whether the service level was changed during the collection interval or not.	A
TOPCALLS	Number of ACDCALLS that queued with top priority and were answered by agents in this split. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C
TRANSFERRED	Number of ACDCALLS that were transferred to another destination (Generic 1 = transfers to a measured split or transfers from a measured trunk to a measured trunk, System 85 R2V4 and Generic 2.1 = transfers to a VDN or a split, Generic 2.2 and Generic 3 = all split calls transferred).	C

Agent Real-Time Database Items

Agent real-time database items apply to the Current Interval Agent (cagent) and Previous Interval Agent (pagent) tables.

Table A-4. Agent Real-Time Database Items

Database Item	Description	Type
ABNCALLS	Number of split calls that were abandoned while ringing the agent's voice terminal.	C
ABNTIME	Time split calls spent ringing before being abandoned.	C
ACD	The ACD for which data was collected.	A
ACDCALLS	Number of split calls the agent answered (includes O_ACDCALLS)	C
ACDTIME	Time the agent spent talking on ACDCALLS (does not include HOLDTIME).	C
ACWINCALLS	Number of inbound extension calls received by the agent while in ACW (after call work) (for split and direct agent calls).	C
ACWINTIME	Time the agent spent talking on ACWINCALLS (does not include HOLDTIME).	C
ACWOUTADJCALLS	Number of ACWOUTCALLS an adjunct processor or host computer placed on behalf of the agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
ACWOUTCALLS	Number of outbound extension calls made by the agent while in ACW (for split and direct agent calls).	C
ACWOUTOFFCALLS	Number of ACWOUTCALLS that the agent made to a destination outside the switch. This database item is only available with Generic 2.2 and Generic 3.	C
ACWOUTOFFTIME	Time the agent spent talking on ACWOUTOFFCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 and Generic 3.	C
ACWOUTTIME	Time the agent spent talking on ACWOUTCALLS (does not include HOLDTIME).	C
ACWTIME	Time the agent was in ACW associated with ACDCALLS .	C

Table A-4. Agent Real-Time Database Items (Contd)

Database Item	Description	Type
AGSTATE	Current WORKMODE and call DIRECTION , for example, AUXOUT .	S
AGTIME	Time since the last agent state change for any split.	S
ANSRINGTIME	Time answered split and direct agent calls were ringing at the agent's voice terminal. This database item is only available with Generic 2.2 and Generic 3.	C
ASSIST	Indicates whether supervisor assistance is currently active for the agent.	S
ASSISTS	Number of times the agent requested assistance from the split supervisor by pressing the ASSIST button or dialing the supervisor's extension. The agent must be handling an ACD call or in after call work for this item to be recorded.	C
AUXINCALLS	Number of inbound extension calls the agent received while in AUX (auxiliary work) or AVAILABLE .	C
AUXINTIME	Time the agent spent talking on AUXINCALLS (does not include HOLDTIME).	C
AUXOUTADJCALLS	Number of AUXOUTCALLS an adjunct processor or host computer placed on behalf of the agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
AUXOUTCALLS	Number of outbound extension calls the agent made while in AUX or AVAILABLE .	C
AUXOUTOFFCALLS	Number of AUXOUTCALLS the agent made to a destination outside the switch. This database item is only available with Generic 2.2 and Generic 3.	C
AUXOUTOFFTIME	Time the agent spent talking on AUXOUTOFFCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 and Generic 3.	C
AUXOUTTIME	Time the agent spent talking on AUXOUTCALLS (does not include HOLDTIME).	C
CHANGED	Time of day that AGSTATE changed.	S
CONFERENCE	Number of times the agent completed a conference call (Generic 3 = all calls, Generic 2.2 = split calls).	C

Table A-4. Agent Real-Time Database Items (Contd)

Database Item	Description	Type
DA_ABNCALLS	Number of direct agent calls that were abandoned while in queue or ringing the agent's voice terminal. This database item is only available with Generic 3 switches that have the ASAI feature.	C
DA_ABNTIME	Time direct agent calls waited in queue or ringing before being abandoned. This database item is only available with Generic 3 switches that have the ASAI feature.	C
DA_ACDCALLS	Number of direct agent calls that the agent answered. This database item is only available with Generic 3 switches that have the ASAI feature.	C
DA_ACDTIME	Time the agent spent talking on DA_ACDCALLS (does not include HOLDTIME). This database item is only available with Generic 3 switches that have the ASAI feature.	C
DA_ACWTIME	Time the agent was in ACW associated with direct agent calls. This database item is only available with Generic 3 switches that have the ASAI feature.	C
DA_ANSTIME	Time that DA_ACDCALLS waited before the agent answered. This database item is only available with Generic 3 switches that have the ASAI feature.	C
DA_INQUEUE	Current number of direct agent calls waiting in queue for this agent. This database item is only available with Generic 3 switches that have the ASAI feature.	S
DA_OLDESTCALL	Time the oldest direct agent call has been waiting for this agent. This database item is only available with Generic 3 switches that have the ASAI feature.	S
DA_OTHERCALLS	Number of direct agent calls that were redirected to other destinations. This database item is only available with Generic 3 switches that have the ASAI feature.	C
DA_OTHERTIME	Time DA_OTHERCALLS waited in queue or ringing before being redirected. This database item is only available with Generic 3 switches that have the ASAI feature.	C
DESTINATION	The destination (PBX, OFF, or as defined in Dictionary) of the outbound call the agent is currently handling, if any. If the agent is <i>not</i> handling an outbound call, the value is blank.	S
DIRECTION	The direction of the call the agent is currently handling — IN or OUT, or as defined in Dictionary. If the agent is not on a call, the value is blank.	S

Table A-4. Agent Real-Time Database Items (Contd)

Database Item	Description	Type
DURATION	Time in the current AGSTATE for the split.	S
EVENT1-9	Number of times the agent pressed a particular stroke count button (buttons 1 to 9). The agent must be handling an ACD call or in after call work for this item to be recorded. This database item is only available with System 85, Generic 2, and Generic 3 switches.	C
EXTENSION	The extension number at which the agent has been working.	A
HOLDABNCALLS	Number of calls that were abandoned from hold (Generic 3 = all callers, System 85 R2V4 and Generic 2 = split callers).	C
HOLDCALLS	Number of calls that were placed on hold at least once (Generic 3 = all calls, System 85 R2V4 and Generic 2 = split calls).	C
HOLDTIME	Time calls spent on hold at the agent's voice terminal (Generic 3 = all calls, System 85 R2V4 and Generic 2 = split calls).	C
I_ACDTIME	Time during the collection interval that the agent was handling split calls (does not include HOLDTIME).	C
I_ACWINTIME	Time during the collection interval that the agent was in ACW associated with split or direct agent calls <i>and</i> on inbound extension calls (does not include HOLDTIME).	C
I_ACWOUTTIME	Time during the collection interval that the agent was in ACW associated with split or direct agent calls <i>and</i> on outbound extension calls (does not include HOLDTIME).	C
I_ACWTIME	Time during the collection interval that the agent was in ACW associated with split calls.	C
I_AUXINTIME	Time during the collection interval that the agent was in AUX or AVAILABLE <i>and</i> on inbound extension calls and SPLIT was OLDEST_LOGON (does not include HOLDTIME).	C
I_AUXOUTTIME	Time during the collection interval that the agent was in AUX or AVAILABLE <i>and</i> on outbound extension calls and SPLIT was OLDEST_LOGON (does not include HOLDTIME).	C

Table A-4. Agent Real-Time Database Items (Contd)

Database Item	Description	Type
I_AVALTIME	Time during the collection interval that the agent was available for ACD calls in this split.	C
I_DA_ACDTIME	Time during the collection interval that the agent spent talking on direct agent calls (does not include HOLDTIME). This database item is only available with Generic 3 switches that have the ASAI feature.	C
I_DA_ACWTIME	Time during the collection interval that the agent was doing after call work associated with direct agent calls. This database item is only available with Generic 3 switches that have the ASAI feature.	C
I_OTHERTIME	Time during the collection interval that the agent was doing other work. For Generic 3, other work includes: while in Auto-In or Manual-In mode, the agent put a call on hold and performed no further action, dialed to place a call or activate a feature, or a personal call is ringing with no further activity. For Generic 1, and Generic 3, the agent logged into multiple splits and did work for a split other than this one. For Generic 1, Generic 2, and Generic 3, after pumpup or after an agent logged in, an ASTATE message was not received (the agent is in the UNKNOWN state).	C
I_RINGTIME	Time during the collection interval that the agent had split and direct agent calls ringing. If the agent changes work modes or makes or receives a call, I_RINGTIME stops accumulating. This database item is only available with Generic 2 and Generic 3.	C
I_STAFFTIME	Time during the collection interval that the agent was staffed (logged in) in this split.	C
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.	C
INTERVAL	Number of minutes in the intrahour interval (15, 30, 60).	A
LOGID	The login ID used to staff the EXTENSION .	S
LOGONSTART	Time of day that the logon session started for this SPLIT . If the agent has not logged in during the collection interval, the value will be blank.	S
MALICIOUS	Indicates whether the agent has initiated a malicious call trace for the current call or not. This database item is only available with Generic 2 and Generic 3r switches.	S

Table A-4. Agent Real-Time Database Items (Contd)

Database Item	Description	Type
O_ACDCALLS	Number of outbound ACDCALLS that an adjunct processor or host computer placed on behalf of the split. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_ACDTIME	Time the agent spent talking on O_ACDCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_ACWTIME	Time the agent was in after call work associated with O_ACDCALLS . This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
OLDEST_LOGON	For agents in multiple splits, the split the agent has been logged into the longest. This database item is used by CMS to identify a split for which to credit personal calls and TI_ database items.	S
ONHOLD	Current number of calls for any split on hold at the agent's voice terminal (Generic 3 = all calls, System 85 R2V4 and Generic 2 = split calls).	S
ORIGIN	How the outbound call the agent is currently handling, if any, originated — PHONE or KEYBOARD (adjunct dialed).	S
POSITION	The position number associated with EXTENSION . Agents in multiple splits have multiple POSITIONS .	A
RINGCALLS	Number of split and direct agent (G3) calls that rang at the agent's voice terminal. This database item is only available with Generic 2 and Generic 3.	C
RINGTIME	Time split and direct agent (G3) calls were ringing at the agent's voice terminal. This database item is only available with Generic 2 and Generic 3.	C
SPLIT	The split number that EXTENSION is assigned to or split number that agent is logged into.	A
STARTED	Time of day that WORKMODE began.	S

Table A-4. Agent Real-Time Database Items (Contd)

Database Item	Description	Type
TI_AUXTIME	Time during the collection interval that the agent was in AUX for all splits or handling AUXINCALLS or AUXOUTCALLS and SPLIT was OLDEST_LOGON (Generic 1 and Generic 3, agents in multiple splits). Time is only stored for the split the agent has been logged into the longest.	C
TI_AVAILTIME	Time during the collection interval that the agent was available for split or direct agent calls for any split and SPLIT was OLDEST_LOGON (Generic 1 and Generic 3, agents in multiple splits). Time is only stored for the split the agent has been logged into the longest.	C
TI_OTHERTIME	Time during the collection interval that the agent was doing other work. For Generic 3, other work includes: while in Auto-In or Manual-In mode, the agent put a call on hold and performed no further action, dialed to place a call or activate a feature, or a personal call is ringing with no further activity. For Generic 1, Generic 2, and Generic 3, after pumpup or after an agent logged in, an ASTATE message was not received (the agent is in the UNKNOWN state). Time is only stored for the split the agent has been logged into the longest.	C
TI_STAFFTIME	Time during the collection interval that the agent was staffed in any split and SPLIT was OLDEST_LOGON (Generic 1 and Generic 3, agents in multiple splits). Time is only stored for the split the agent has been logged into the longest.	C
TRANSFERRED	Number of times the agent completed a transfer (Generic 1 = measured call to measured split or measured trunk to measured trunk, Generic 3 = all inbound calls, System 85 R2V4 and Generic 2.1 = transfers to a VDN, Generic 2.2 = split calls being transferred and transfers to a VDN or split).	C
VDN	Vector directory number associated with the ACDCALL the agent is currently handling. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	S

Table A-4. Agent Real-Time Database Items (Contd)

Database Item	Description	Type
WORKMODE	The 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
WORKSPLIT	When the agent is handling a split or direct agent call or in ACW, this is the split 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 in which the agent was available. This database item is only available with Generic 1 and Generic 3.	S
WORKSPLIT2 WORKSPLIT3	For agents available in multiple splits, another split in which the agent is available. This database item is only available with Generic 1 and Generic 3.	S

Trunk Group Real-Time Database Items

Trunk group real-time database items apply to the Current Interval Trunk Group (ctkgrp) and Previous Interval Agent (ptkgrp) tables.

Table A-5. Trunk Group Real-Time Database Items

Database Item	Description	Type
ABNCALLS	Number of split and direct agent INCALLS carried on this trunk group that were abandoned.	C
ABNQUECALLS	Number of ABNCALLS that were abandoned while in queue.	C
ABNRINGCALLS	Number of ACDCALLS that were abandoned while ringing at an agent position. This database item is only available with Generic 2 and Generic 3.	C
ABNVECCALLS	Number of ABNCALLS that abandoned while in vector processing. This includes calls that were abandoned while in queue or ringing at an agent position. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.	C
ACD	ACD number for which data was collected.	A
ACDCALLS	Number of split and direct agent INCALLS that were answered by an agent.	C
ADJUNCTOUT	Current number of OUTBOUND calls an adjunct processor or host computer placed on behalf of an agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	S
ALLINUSE	All trunks in the trunk group are currently in use.	S
ALLINUSETIME	Duration of all all-trunks-busy periods (includes trunks that are maintenance busy).	C
AUDIO	Number of audio difficulty problems reported.	C
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a "queue to main split" command. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.	C

Table A-5. Trunk Group Real-Time Database Items (Contd)

Database Item	Description	Type
BLOCKAGE	Number of outbound call attempts that were blocked because all trunks were busy. This database item is only available with System 85 and Generic 2.	C
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch.	C
COMPLETED	Number of OUTCALLS that were completed (far-end answered). This database item is only available with Generic 1.1 and Generic 3.	C
CONNECTCALLS	Number of INCALLS that were not split or direct agent calls and were answered at a station (connected to a non-ACD destination).	C
DISCCALLS	Number of INCALLS that were disconnected by the switch.	C
FAILURES	Number of trunk failures for this TKGRP . 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 database item is only available with System 85 and Generic 2.	C
INBOUND	Current number of NUMINUSE trunks busy on inbound calls.	S
INCALLS	Number of inbound calls that were carried by this TKGRP . INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS	C
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.	C
INTIME	Duration of INCALLS (from the time the trunk is seized until the trunk is dropped).	C
MBUSY	Current number of NUMINUSE trunks that are maintenance busy.	S
MBUSYTIME	Total time during the collection interval that each trunk was maintenance busy.	C
NUMINUSE	Current number of TRUNKS that are busy (on calls or maintenance busy). NUMINUSE = INBOUND + OUTBOUND + MBUSY	S

Table A-5. Trunk Group Real-Time Database Items (Contd)

Database Item	Description	Type
O_ABNCALLS	Number of OUTCALLS that were abandoned by the receiving end while waiting for an available agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_ACDCALLS	Number of OUTCALLS that were answered by an agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_OTHERCALLS	Number of outbound split or direct agent calls that were forced busy or had unknown dispositions, for example, calls that were abandoned before reaching split processing. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
OTHERCALLS	Number of INCALLS that were neither answered nor abandoned. OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS	C
OUTBOUND	Current number of NUMINUSE trunks busy on outbound calls.	S
OUTCALLS	Number of outbound calls that were carried by this TKGRP . OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS	C
OUTTIME	Duration of OUTCALLS (from the time the trunk is seized until the trunk is dropped).	C
SETUPTIME	Amount of time until OUTCALLS completed (from the time the trunk is seized until answer supervision or SMDR answer time out). This database item is only available with Generic 1 and Generic 3.	C
SHORTCALLS	Number of calls that occupied a trunk in the trunk group for less than 2 seconds.	C
SPLIT	Split to which this TKGRP is currently assigned.	A
TKGRP	Trunk group number for which data was collected.	A

Table A-5. Trunk Group Real-Time Database Items (Contd)

Database Item	Description	Type
TRANSFERRED	Number of calls that were transferred to another destination (Generic 1 = measured call to measured split and measured trunk to measured trunk, Generic 3 = all calls, System 85 R2V4 and Generic 2.1 = transfers to VDNs and splits, Generic 2.2 = split calls being transferred and transfers to VDNs and splits).	C
TRUNKS	Number of trunks currently assigned to this TKGRP .	A
VDN	VDN to which this TKGRP is currently assigned. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	A
VECTOR	Vector to which the trunk group's VDN is currently assigned. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	A

Trunk Real-Time Database Items

Trunk real-time database items apply to the Current Interval Trunk (ctrunk) and Previous Interval Agent (ptrunk) tables.

Table A-6. Trunk Real-Time Database Items

Database Item	Description	Type
ABNCALLS	Number of split and direct agent INCALLS on the trunk that were abandoned. If the switch has the Call Vectoring feature, this includes calls that were abandoned from vector processing. For Generic 2.2, this includes calls that were abandoned from the VDN. For Generic 3, this includes all calls that were abandoned.	C
ACD	ACD number for which data was collected.	A
ACDCALLS	Number of split or direct agent INCALLS that were answered by an agent.	C
AUDIO	Number of audio difficulty problems reported for the trunk.	C
DIRECTION	Direction of trunk seizure (call direction) — IN, OUT, or as defined in Dictionary. The value is blank if the trunk is not seized (trunk idle).	S
DURATION	Length of time the trunk has been in TKSTATE .	S
EQLOC	Physical equipment location (trunk number) for which data was collected.	A
EXTENSION	Extension currently associated with the trunk. That is, a call on the trunk is queued to the extension (direct agent), ringing, or connected to the extension.	S
FAILURES	Number of trunk failures. 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 database item is only available with System 85 and Generic 2.	C
INCALLS	Number of inbound calls carried by the trunk. This includes calls with short holding times, but does not include calls that involved a trunk failure.	C
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.	C

Table A-6. Trunk Real-Time Database Items (Contd)

Database Item	Description	Type
INTIME	Duration of INCALLS (from the time the trunk is seized until the trunk is dropped).	C
ITN	Internal trunk number of the trunk.	A
LOGID	Login ID of the agent who is currently handling a call on the trunk.	S
MBUSYTIME	Time during the collection interval that the trunk was maintenance busy.	C
O_ABNCALLS	Number of outbound split calls that were abandoned at the receiving end. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_ACDCALLS	Number of OUTCALLS that were answered by an agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
O_OTHERCALLS	Number of outbound split calls on the trunk that were forced busy or had unknown dispositions, for example, calls that were abandoned before reaching ACD processing. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.	C
OTHERCALLS	Number of inbound split and direct agent calls on the trunk that were not answered or abandoned. This includes calls given forced busy, disconnected, connected to a non-ACD destination, and calls with unknown dispositions.	C
OUTCALLS	Number of outbound calls that were carried by the trunk. OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS	C
OUTTIME	Duration of OUTCALLS (from the time the trunk is seized until the trunk is dropped).	C
PRIORITY	Priority at which call on the trunk is queued to a split. Without Call Vectoring, the values are: YES, NO, or as defined in Dictionary. With Call Vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary.	C
PRIORITY2-3	Priority at which call on the trunk is queued to a second or third split. Without Call Vectoring, the values are: YES, NO, or as defined in Dictionary. With Call Vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This database item is only available with Generic 3 switches that have the Call Vectoring feature.	C

Table A-6. Trunk Real-Time Database Items (Contd)

Database Item	Description	Type
QUECOUNT	Number of splits a call on the trunk is currently queued to.	C
QUETYPE	Type of split a call on the trunk is currently queued to. Indicates whether a call was queued by way of a "queue to main split" command or some other vector command. The values are: MAIN, BACKUP, or as defined in Dictionary. This database item is only available with Generic 3 switches that have the Call Vectoring feature.	C
QUETYPE2-3	Split types for the second and third splits to which a call on the trunk is currently queued to. The values are: MAIN, BACKUP, or as defined in Dictionary. This database item is only available with Generic 3 switches that have the Call Vectoring feature.	C
SHORTCALLS	Number of calls that occupied the trunk for less than 2 seconds.	C
SPLIT	The first split number to which the call on the trunk is currently queued or the split number in which the call was answered.	S
SPLIT2-3	Split numbers of second and third splits to which the call on the trunk is currently queued. This database item is only available with Generic 3 switches that have the Call Vectoring feature.	S
STARTED	Time of day that the trunk's current state TKSTATE started.	S
TKGRP	Trunk group number to which the trunk is assigned.	A
TKSTATE	Current state of the trunk. Trunk states include: IDLE, SEIZED, QUEUED, CONN, RING, DABN, FBUSY, FDISC, HOLD, MBUSY, UNKNOWN, or as defined in Dictionary.	S
VDN	VDN that is associated with the call currently on the trunk. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C
VECTOR	Vector that is associated with the call currently on the trunk. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C

Vector Real-Time Database Items

Vector database items are available only with the Vectoring feature. They apply to the Current Interval Vector (cvector) and Previous Interval Vector (pvector) tables.

Table A-7. Vector Real-Time Database Items

Database Item	Description	Type
ABNCALLS	Number of INCALLS that were abandoned while being processed by the vector.	C
ABNQUECALLS	Number of split or direct agent calls that were abandoned while in queue.	C
ABNRINGCALLS	Number of split or direct agent calls that were abandoned while ringing at an agent position. This database item is only available with Generic 2 and Generic 3.	C
ABNTIME	Time ABNCALLS waited in the vector or ringing before being abandoned.	C
ACD	ACD number for which data was collected.	A
ACDCALLS	Number of split and direct agent calls that were answered by an agent. Includes split and direct agent calls from “queue to main split,” “check backup split,” “messaging split,” and “adjunct routing” to split or direct agent commands.	C
ADJATTEMPTS	Number of adjunct-routing attempts for calls processed by the vector. This database item is only available with Generic 3 switches that have the ASAI feature.	C
ADJROUTED	Number of adjunct-routing calls that were redirected by an adjunct processor or host computer. This database item is only available with Generic 3 switches that have the ASAI feature.	C
ANSTIME	Time split and direct agent calls waited in the vector or ringing before an agent answered.	C
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a “queue to main split” command. MAINCALLS = ACDCALLS – BACKUPCALLS This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.	C

Table A-7. Vector Real-Time Database Items (Contd)

Database Item	Description	Type
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch.	C
BUSYTIME	Duration of BUSYCALLS (from the time the call entered the vector until a busy signal was given).	C
DISCCALLS	Number of INCALLS that were disconnected by the switch.	C
DISCTIME	Duration of DISCCALLS (from the time the call entered the vector until the end of the announcement, if any). This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C
GOTOCALLS	Number of OUTFLOWCALLS that were redirected to another vector by way of a "go to vector" command.	C
GOTOTIME	Time GOTOCALLS spent in the vector before being redirected to another vector.	C
INCALLS	Number of inbound calls that were processed by the vector (this includes INFLOWCALLS). INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS	C
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.	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	Current number of inbound calls that the vector is processing.	S
INQUEUE	Current number of INPROGRESS calls that are queued.	S
INRING	Current number of INPROGRESS split and direct agent calls that are ringing at an agent position. This database item is only available with Generic 2 and Generic 3.	S
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to a destination outside the switch.	C
INTIME	Time spent in the vector executing steps.	C
LOOKATTEMPTS	Number of look-ahead interflow attempts for calls processed by the vector. This database item is only available with DEFINITY Generic 2.2 and Generic 3 switches that have the Look-Ahead Interflow feature.	C

Table A-7. Vector Real-Time Database Items (Contd)

Database Item	Description	Type
LOOKFLOWCALLS	Number of INTERFLOWCALLS that were redirected to another switch by way of the Look-Ahead Interflow feature. This database item is only available with DEFINITY Generic 2.2 and Generic 3 switches that have the Look-Ahead Interflow feature.	C
NUMVDNS	Current number of VDNs assigned to the 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 = INCALLS - ACDCALLS - ABNCALLS	C
OTHERTIME	Duration of OTHERCALLS (from the time the call entered the vector until the call's disposition was known).	C
OUTFLOWCALLS	Number of INCALLS that were redirected to another destination by way of a "route to," "adjunct routing," or "go to vector" command. Does not include calls that route to a split (G3).	C
OUTFLOWTIME	Time OUTFLOWCALLS spent in the vector before being redirected.	C
RINGCALLS	Number of split and direct agent calls that rang at agent positions. This database item is only available with Generic 2 and Generic 3.	C
RINGTIME	Time split and direct agent calls spent ringing at agent positions independent of final disposition. This database item is only available with Generic 2 and Generic 3.	C
VECTOR	Number of the Vector.	A

VDN Real-Time Database Items

VDN database items are available only with the Vectoring feature. They apply to the Current Interval VDN (cvdn) and Previous Interval VDN (pvdn) tables.

Table A-8. VDN Real-Time Database Items

Database Item	Description	Type
ABNCALLS1-10	Number of INCALLS that were 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
ABNCALLS	Number of INCALLS that were abandoned while carried by the VDN.	C
ABNQUECALLS	Number of ABNCALLS that were abandoned while in a split or direct agent queue.	C
ABNRINGCALLS	Number of split and direct agent ABNCALLS that were abandoned while ringing at an agent position. This database item is only available with Generic 2 and Generic 3.	C
ABNTIME	Time caller waited before abandoning.	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	ACD number for which data was collected.	A
ACDCALLS	Number of split and direct agent calls that were answered by an agent. This includes calls from “queue to main split,” “check backup split,” “messaging split,” “route to” split, and “adjunct routing” to a split or direct agent commands.	C
ACDTIME	Time ACDCALLS were connected to an agent (does not include HOLDTIME).	C
ACWTIME	Time that agents spent in after call work associated with ACDCALLS .	C
ADJATTEMPTS	Number of adjunct-routing attempts for calls carried by this VDN. This database item is only available with Generic 3 switches that have the ASAI feature.	C

Table A-8. VDN Real-Time Database Items (Contd)

Database Item	Description	Type
ADJROUTED	Number of calls that were routed by an adjunct processor or host computer. This database item is only available with Generic 3 switches that have the ASAI feature.	C
ANSCONNCALLS1-10	Number of calls that were answered in each of the service level increments PERIOD1 through PERIOD9 (as defined on the ACD Administration: VDN Call Profile window). ANSCONNCALLS10 is the number of calls connected after the last increment PERIOD9 . This includes ACD and extension calls (by way of a "route to" command). For System 85 R2V4 and Generic 2.1, this is the time before ringing starts on extension calls.	C
ANSTIME	Time split and direct agent calls waited in the associated vector or ringing before being answered.	C
ATAGENT	Current number of INPROGRESS calls (ACD and non-ACD) that have been answered by a station.	S
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a "queue to main split" command. This includes calls from "messaging split," "check backup split," and "route to" split command, but does not include direct agent calls. MAINCALLS = ACDCALLS – BACKUPCALLS This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.	C
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch.	C
BUSYTIME	Duration of BUSYCALLS (from the time the call entered the vector until the trunk goes idle).	C
CONNECTCALLS	Number of non-ACD INCALLS that were delivered to a station by way of a "route to" or "adjunct routing" command and were not abandoned. For System 85 R2V4 and Generic 2.1, non-ACD abandons are not tracked, so all calls that route to a station are included in CONNECTCALLS .	C
CONNECTTIME	For Generic 2.2 and Generic 3, time CONNECTCALLS waited before being answered. For System 85 R2V4 and Generic 2.1, this is the time before ringing starts.	C
DISCCALLS	Number of INCALLS that were disconnected by the switch while carried by the VDN.	C

Table A-8. VDN Real-Time Database Items (Contd)

Database Item	Description	Type
DISCTIME	Duration of DISCCALLS (from the time the call entered the vector until the end of the announcement, if any). This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.	C
ILN	Internal line number of the VDN.	A
INCALLS	Number of inbound calls that were directed to this VDN. INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS	C
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.	C
INFLOWCALLS	Number of calls that were redirected into the VDN by way of a "route to" VDN command.	C
INPROGRESS	Current number of inbound calls that the VDN is carrying.	S
INQUEUE	Current number of INPROGRESS calls that are queued.	S
INRING	Number of split and direct agent INPROGRESS calls that are currently ringing at an agent position. This database item is only available with Generic 2 and Generic 3.	S
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to a destination outside the switch.	C
INTIME	Time spent by INCALLS in this VDN. INTIME = ACDTIME + ABNTIME + OTHERTIME + ANSTIME NOTE: In R3 CMS, the time the caller was put on hold is not stored in the VDN tables. This can be calculated as: Hold time = INTIME - ACDTIME - ABNTIME - OTHERTIME - ANSTIME. On Generic 2 and System 85 there are Multiple Call Handling scenarios in which active VDN calls have only INTIME collected. In this case, hold time cannot be calculated.	C
INVECTOR	Current number of INPROGRESS calls that are being processed by the VDN's vector.	S
LOOKATTEMPTS	Number of look-ahead interflow attempts for calls that this VDN carried (Generic 2.2 and Generic 3).	C
LOOKFLOWCALLS	Number of INTERFLOWCALLS that were redirected by way of the Look-Ahead Interflow feature (Generic 2.2 and Generic 3).	C

Table A-8. VDN Real-Time Database Items (Contd)

Database Item	Description	Type
NUMTGS	Number of trunk groups that are currently assigned to this VDN.	A
OTHERCALLS	Number of INCALLS that connected to a non-ACD destination, were redirected out of the VDN, were given a busy signal, or were disconnected. OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS	C
OTHERTIME	Duration of OTHERCALLS (from the time the call entered the associated vector until the the call left the VDN).	C
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.	C
OUTFLOWTIME	Time OUTFLOWCALLS were carried by the VDN before being redirected (from the time the call entered the associated vector until the the call was redirected).	C
PERIOD1-9	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
PERIODCHG	Indicates whether the periods for call profiles were changed during the collection interval or not.	A
RINGCALLS	Number of split and direct agent calls that rang at agent positions. This database item is only available with Generic 2 and Generic 3.	C
RINGTIME	Time split and direct agent calls spent ringing at agent positions. This database item is only available with Generic 2 and Generic 3.	C
SERVICELEVEL	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
SVCLEVELCHG	Indicates whether the service level was changed during the collection interval or not.	A
TRANSFERRED	Number of calls that were transferred to another destination (Generic 3 = all VDN calls, System 85 R2V4 and Generic 2.1 = transfers to a VDN or split, Generic 2.2 = split calls and transfers to a VDN).	C
VDN	Number (extension) of the VDN.	A
VECTOR	Number of the vector to which the VDN is assigned.	A

Call Work Codes Real-Time Database Items

Call work codes are only available with Generic 3i, Generic 3r, and Generic 2.2 switches. Real-time database items for call work codes apply to the `ccwc` and `pcwc` tables.

Table A-9. Call Work Codes Real-Time Database Items

Database Item	Description	Type
ACD	ACD number for which data was collected.	A
ACDCALLS	Number of split and direct agent calls that were assigned the associated call work code.	C
ACDTIME	Time agents spent talking on ACDCALLS associated with the call work code (does not include HOLDTIME).	C
ACWTIME	Time that agents spent in after call work for ACDCALLS that were associated with the call work code.	C
CWC	Call work code for which data was collected.	A
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.	C

Historical Database Items

Split Historical Database Items

Split historical database items apply to the Intrahour Split (`hsplit`), Daily Split (`dsplit`), Weekly Split (`wsplit`), and Monthly Split (`msplit`) tables, except as noted.

Table A-10. Split Historical Database Items

Database Item	Description
ABNCALLS	Number of CALLSOFFERED calls that were abandoned by the caller while in queue or ringing an agent position. When a call is queued to multiple splits (Generic 3 only), an abandon is only pegged for the first split to which the call queued.
ABNCALLS1-10	Each item contains the number of times that callers abandoned during each period (PERIOD1-9).
ABNRINGCALLS	Number of ABNCALLS that abandoned while ringing at an agent position. This database item is only available with Generic 2 and Generic 3.
ABNTIME	Time callers waited in queue or ringing before abandoning.
ACCEPTABLE	Number of ACDCALLS that were connected to an agent within the predefined acceptable service level.
ACD	ACD number for which data was collected.
ACDCALLS	Number of CALLSOFFERED calls that were answered by an agent.
ACDCALLS1-10	Number of ACDCALLS during the collection interval that were answered (ANSTIME) in each of the service level increments PERIOD1 through PERIOD9 . ACDCALLS10 is the number of calls answered after the last increment PERIOD9 .
ACDTIME	Time agents spent talking on ACDCALLS (does not include HOLDTIME).
ACWINCALLS	Number of inbound extension calls (split and direct agent calls) received by agents while in ACW.
ACWINTIME	Time agents spent talking on ACWINCALLS (does not include hold time on Generic 3).
ACWOUTADJCALLS	Number of ACWOUTCALLS that were placed by an adjunct on behalf of an agent (keyboard-dialed). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.

Table A-10. Split Historical Database Items (Contd)

Database Item	Description
ACWOUTCALLS	Number of outbound extension calls (split and direct agent calls) made by agents while in ACW.
ACWOUTOFFCALLS	Number of ACWOUTCALLS that were made to an off-premises location. This database item is only available with Generic 2.2 and Generic 3.
ACWOUTOFFTIME	Time agents spent talking on ACWOUTOFFCALLS (does not include hold time). This database item is only available with Generic 2.2 and Generic 3.
ACWOUTTIME	Time agents spent talking on ACWOUTCALLS (does not include hold time on Generic 3).
ACWTIME	Duration of all after call work associated with the ACDCALLS .
ANSTIME	Time calls spent in queue or ringing before connecting to an agent.
ASSISTS	Number of times agents requested assistance from the split supervisor by pressing the ASSIST button or dialing the supervisor's extension. The agent must be handling an ACD call or in after call work for this item to be recorded.
AUXINCALLS	Number of inbound extension calls received by agents while in AUX or AVAILABLE.
AUXINTIME	Time agents spent talking on AUXINCALLS (does not include hold time on Generic 3).
AUXOUTADJCALLS	Number of AUXOUTCALLS that were placed by an adjunct on behalf of an agent (keyboard-dialed). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
AUXOUTCALLS	Number of outbound extension calls made by agents while in AUX or AVAILABLE.
AUXOUTOFFCALLS	Number of AUXOUTCALLS that were made to an off-premises location. This database item is only available with Generic 2.2 and Generic 3.
AUXOUTOFFTIME	Time agents spent talking on AUXOUTOFFCALLS (does not include hold time). This database item is only available with Generic 2.2 and Generic 3.
AUXOUTTIME	Time agents spent talking on AUXOUTCALLS (does not include hold time on Generic 3).

Table A-10. Split Historical Database Items (Contd)

Database Item	Description
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a “queue to main split” command. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
BUSYCALLS	Number of CALLSOFFERED that were given a busy signal by the switch.
BUSYTIME	Time the call spent in queue before a busy signal was given.
CALLSOFFERED	Number of calls offered to the split. CALLSOFFERED = ACDCALLS + ABNCALLS + BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUECALLS
CONFERENCE	Number of ACDCALLS that were conferenced. This database item is only available with Generic 2.2 and Generic 3.
DEQUECALLS	Number of calls queued to this SPLIT but pegged in another split (as answered, abandoned, outflowed, busy, or forced disconnect). This database item is only available with Generic 3.
DEQUETIME	Amount of time DEQUEUCALLS spent in this SPLIT 's queue before dequeuing. This database item is only available with Generic 3.
DISCCALLS	Number of CALLSOFFERED calls that were disconnected by the switch. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
DISCTIME	Duration of DISCCALLS (from the time the call entered the vector until the end of the announcement, if any). This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
EVENT1-9	Number of times each event (stroke count) button was pressed. The agent must be handling an ACD call or in after call work for this item to be recorded. This database item is only available with System 85, Generic 2, and Generic 3 switches.
HIGHCALLS	Number of ACDCALLS with high priority that were answered by this split. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
HOLDABNCALLS	Number of split calls that were abandoned while on hold. This database item is only available with System 85 R2V4, Generic 2, and Generic 3.
HOLDCALLS	Number of split calls that were placed on hold. This database item is only available with System 85 R2V4, Generic 2, and Generic 3.

Table A-10. Split Historical Database Items (Contd)

Database Item	Description
HOLDTIME	Time callers spent on hold (split calls only). This database item is only available with System 85 R2V4, Generic 2, and Generic 3.
I_ACDTIME	Time during the collection interval that agents were on split calls.
I_ACWINTIME	Time during the collection interval that agents were in ACW (for split or direct agent calls) <i>and</i> on inbound extension calls (does not include hold time on Generic 3).
I_ACWOUTTIME	Time during the collection interval that agents were in ACW (for split or direct agent calls) <i>and</i> on outbound extension calls (does not include hold time on Generic 3).
I_ACWTIME	Time during the collection interval that agents were in ACW independent of call activity.
I_AUXINTIME	Time during the collection interval that agents were in AUX or AVAILABLE <i>and</i> on inbound extension calls (does not include hold time on Generic 3).
I_AUXOUTTIME	Time during the collection interval that agents were in AUX or AVAILABLE <i>and</i> on outbound extension calls (does not include hold time on Generic 3).
I_AUXTIME	Time during the collection interval that agents were in AUX. For Generic 1, agents in multiple splits doing work in a split other than this split.
I_AVAILTIME	Time during the collection interval that agents were available for split calls.
I_OTHERTIME	Time during the collection interval that agents were doing other work. For Generic 3, other work includes: while in Auto-In or Manual-In mode, an agent put a call on hold and performed no further action, was on a personal call and this split is not the OLDEST_LOGON , dialed to place a call or activate a feature, or a personal call is ringing with no further activity. For Generic 1, and Generic 3, an agent logged into multiple splits and did work for a split other than this one. For Generic 1, Generic 2, and Generic 3, after pumpup or after an agent logged in, an ASTATE message was not received (the agent is in the UNKNOWN state).
I_RINGTIME	Time during the collection interval that agents had split calls ringing. If an agent changes work modes or makes or answers a personal call, I_RINGTIME stops accumulating. This database item is only available with Generic 2 and Generic 3.

Table A-10. Split Historical Database Items (Contd)

Database Item	Description
I_STAFFTIME	Time during the collection interval that agents were staffed (logged in).
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.
INFLOWCALLS	Number of calls that were redirected to the split's queue from another queue. For Generic 3 with Call Vectoring, this includes calls answered by a split other than the first split to which a call queued in a vector. When a call leaves vector processing, the next split to which the call queues will not be credited with an inflow.
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to an off-premises destination.
INTERVAL	Length of the intrahour interval (Intrahour table only).
LOWCALLS	Number of ACDCALLS that queued to the split with low (vectoring) or no (non-vectoring) priority.
MAXINQUEUE	Maximum number of split calls in queue during the collection interval (that is, the high-water mark for calls in queue during the interval).
MAXOCWTIME	The longest time during the collection interval that a split call waited before an agent answered, the caller abandoned, or the call was redirected, received a busy signal, or was disconnected.
MAXSTAFFED	Maximum number of agents that were staffed during the collection interval.
MEDCALLS	Number of ACDCALLS that queued to the split with medium or higher priority. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
O_ACDCALLS	Number of ACDCALLS that were placed by an adjunct (predictive dialing). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_ACDTIME	Time agents spent talking on O_ACDCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_ACWTIME	Duration of all after call work associated with the O_ACDCALLS . This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.

Table A-10. Split Historical Database Items (Contd)

Database Item	Description
OUTFLOWCALLS	Number of CALLSOFFERED calls that were redirected to another destination. For Generic 3 with Call Vectoring and multiple split queuing, this includes calls queued to the primary split and answered in another split.
OUTFLOWTIME	Time OUTFLOWCALLS spent in queue or ringing before being redirected.
PERIOD1-9	ANSTIME is divided into 10 variable-length periods along a time continuum. Each item contains the length of each period. (The tenth period is anything greater than the value in PERIOD9.)
PERIODCHG	Indicates whether the periods for call profiles were changed during the collection interval or not.
RINGCALLS	Number of calls that rang at agent positions.
RINGTIME	Time this split's calls spent ringing at agent positions independent of their final disposition or agent activity.
ROW_DATE	Date on which data was collected.
SERVICELEVEL	Number of seconds within which calls must be handled in order to be considered acceptable.
SPLIT	Split number for which data was collected.
STARTTIME	Start time for the interval for which data was collected (Intrahour table only).
SVCLEVELCHG	Indicates whether the service level was changed during the collection interval or not.
TOPCALLS	Number of ACDCALLS with top priority that were answered by this split. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
TRANSFERRED	Number of ACDCALLS or DA_ACD CALLS that were transferred to another destination (Generic 1 = transfers to a measured split and transfers from a measured trunk to a measured trunk, System 85 R2V4 and Generic 2.1 = transfers to a VDN or split, Generic 2.2 and Generic 3 = all split calls transferred).

Agent Historical Database Items

Agent historical database items apply to the Intrahour Agent (hagent), Daily Agent (dagent), Weekly Agent (wagent), and Monthly Agent (magent) tables, except as noted.

Table A-11. Agent Historical Database Items

Database Item	Description
ABNCALLS	Number of split calls that were abandoned while ringing at the agent station (after being directed to the agent station, before being answered).
ABNTIME	Time split calls spent ringing before being abandoned.
ACD	The ACD number for which data was collected.
ACDCALLS	Number of split calls the agent answered (includes O_ACDCALLS).
ACDTIME	Time the agent spent talking on ACDCALLS (does not include HOLDTIME).
ACWINCALLS	Number of inbound extension calls the agent received while in ACW (for split and direct agent calls).
ACWINTIME	Time the agent spent talking on ACWINCALLS (does not include HOLDTIME).
ACWOUTADJCALLS	Number of ACWOUTCALLS that were placed by an adjunct on behalf of an agent (keyboard-dialed). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
ACWOUTCALLS	Number of outbound extension calls made by the agent while in ACW (for split and direct agent calls).
ACWOUTOFFCALLS	Number of ACWOUTCALLS that were made to an off-premises location. This database item is only available with Generic 2.2 and Generic 3.
ACWOUTOFFTIME	Time the agent spent talking on ACWOUTOFFCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 and Generic 3.
ACWOUTTIME	Time the agent spent talking on ACWOUTCALLS (does not include HOLDTIME).
ACWTIME	Duration of all after call work associated with ACDCALLS .

Table A-11. Agent Historical Database Items (Contd)

Database Item	Description
ANSRINGTIME	Time answered split and direct agent calls were ringing at the agent's voice terminal. This database item is only available with Generic 2.2 and Generic 3.
ASSISTS	Number of times agents requested assistance from the split supervisor by pressing the ASSIST button or dialing the supervisor's extension. The agent must be handling an ACD call or in after call work for this item to be recorded.
AUXINCALLS	Number of inbound extension calls the agent received while in AUX (auxiliary work) or AVAILABLE.
AUXINTIME	Time the agent spent talking on AUXINCALLS (does not include HOLDTIME).
AUXOUTADJCALLS	Number of AUXOUTCALLS that were placed by an adjunct on behalf of the agent (keyboard-dialed). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
AUXOUTCALLS	Number of outbound extension calls the agent made while in AUX or AVAILABLE.
AUXOUTOFFCALLS	Number of AUXOUTCALLS that were made to an off-premises location. This database item is only available with Generic 2.2 and Generic 3.
AUXOUTOFFTIME	Time the agent spent talking on AUXOUTOFFCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 and Generic 3.
AUXOUTTIME	Time the agent spent talking on AUXOUTCALLS (does not include HOLDTIME).
CONFERENCE	Number of times the agent completed a conference call (Generic 3 = all calls, Generic 2.2 = split calls).
DA_ABNCALLS	Number of direct agent calls that were abandoned by the caller while queued or ringing. This database item is only available with Generic 3 switches that have the ASAI feature.
DA_ABNTIME	Time DA_ABNCALLS waited in queue or ringing before being abandoned. This database item is only available with Generic 3 switches that have the ASAI feature.
DA_ACDCALLS	Number of direct agent calls that were answered by the agent. This database item is only available with Generic 3 switches that have the ASAI feature.

Table A-11. Agent Historical Database Items (Contd)

Database Item	Description
DA_ACDTIME	Time the agent spent talking on DA_ACDCALLS (does not include HOLDTIME). This database item is only available with Generic 3 switches that have the ASAI feature.
DA_ACWTIME	Duration of after call work associated with DA_ACDCALLS . This database item is only available with Generic 3 switches that have the ASAI feature.
DA_ANSTIME	Time direct agent calls waited before the agent answered. This database item is only available with Generic 3 switches that have the ASAI feature.
DA_OTHERCALLS	Number of direct agent calls that were redirected to another destination. This database item is only available with Generic 3 switches that have the ASAI feature.
DA_OTHERTIME	Time DA_OTHERCALLS waited in queue or ringing before being redirected. This database item is only available with Generic 3 switches that have the ASAI feature.
EVENT1-9	Number of times each event (stroke count) button was pressed. The agent must be handling an ACD call or in after call work for this item to be recorded. This database item is only available with System 85, Generic 2, and Generic 3 switches.
EXTENSION	Extension number at which the agent has been working.
HOLDABNCALLS	Number of calls that were abandoned from hold (Generic 3 = all callers, System 85 R2V4 and Generic 2 = split callers).
HOLDCALLS	Number of calls that were placed on hold at least once (Generic 3 = all calls, System 85 R2V4 and Generic 2 = split calls).
HOLDTIME	Time callers spent on hold (Generic 3 = all callers, System 85 R2V4 and Generic 2 = split callers).
I_ACDTIME	Time during the collection interval that the agent was talking on split calls (does not include HOLDTIME).
I_ACWINTIME	Time during the collection interval that the agent was in ACW (for split or direct agent calls) <i>and</i> on inbound extension calls (does not include HOLDTIME).
I_ACWOUTTIME	Time during the collection interval that the agent was in ACW (for split or direct agent calls) <i>and</i> on outbound extension calls (does not include HOLDTIME).
I_ACWTIME	Time during the collection interval that the agent was in ACW independent of call activity.

Table A-11. Agent Historical Database Items (Contd)

Database Item	Description
I_AUXINTIME	Time during the collection interval that the agent was in AUX or AVAILABLE <i>and</i> on inbound extension calls and SPLIT was the split this agent was logged into the longest (for Generic 3, agents in multiple splits). This database item does not include HOLDTIME .
I_AUXOUTTIME	Time during the collection interval that the agent was in AUX or AVAILABLE <i>and</i> on outbound extension calls and SPLIT was the split this agent was logged into the longest (for Generic 3, agents in multiple splits). This database item does not include HOLDTIME .
I_AVAILTIME	Time during the collection interval that the agent was available for split calls.
I_DA_ACDTIME	Time during the collection interval that the agent spent talking on direct agent calls (does not include HOLDTIME). This database item is only available with Generic 3 switches that have the ASAI feature.
I_DA_ACWTIME	Time during the collection interval that the agent was doing after call work associated direct agent calls. This database item is only available with Generic 3 switches that have the ASAI feature.
I_OTHERTIME	Time during the collection interval that the agent was doing other work. For Generic 3, other work includes: while in Auto-In or Manual-In mode, the agent put a call on hold and performed no further action, dialed to place a call or activate a feature, or a personal call is ringing with no further activity. For Generic 1, and Generic 3, the agent logged into multiple splits and did work for a split other than this one. For Generic 1, Generic 2, and Generic 3, after pumpup or after an agent logged in, an ASTATE message was not received (the agent is in the UNKNOWN state).
I_RINGTIME	Time during the collection interval that the agent had split and direct agent calls ringing. If an agent changes work modes or makes or answers a personal call, I_RINGTIME stops accumulating. This database item is only available with Generic 2 and Generic 3.
I_STAFFTIME	Time during the collection interval that the agent was staffed (logged in) in this split.
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.
INTERVAL	Length of the intrahour interval (for the <code>hagent</code> table only).
LOGID	Login ID that was used to staff the EXTENSION . Agents in multiple splits (Generic 1 and Generic 3) have one LOGID .

Table A-11. Agent Historical Database Items (Contd)

Database Item	Description
O_ACDCALLS	Number of ACDCALLS that were placed by an adjunct (predictive dialing). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_ACDTIME	Time the agent spent talking on O_ACDCALLS (does not include HOLDTIME). This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_ACWTIME	Duration of all after call work associated with the O_ACDCALLS . This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
RINGCALLS	Number of split and direct agent calls (G3) that rang at the agent's voice terminal. This database item is only available with Generic 2 and Generic 3.
RINGTIME	Time split and direct agent calls (G3) that rang at the agent's voice terminal independent of call disposition or agent activity. This database item is only available with Generic 2 and Generic 3.
ROW_DATE	Date on which data was collected.
SPLIT	Split number that EXTENSION is assigned to or split number that agent logged into.
STARTTIME	Start time for the interval for which data was collected (for the hagent table only).
TI_AUXTIME	Time during the collection interval that the agent was in AUX in all splits or on AUXINCALLS or AUXOUTCALLS and SPLIT was the split the agent was logged into the longest (Generic 1 and Generic 3, agents in multiple splits). Time is only stored for the split the agent has been logged into the longest.
TI_AVAILTIME	Time during the collection interval that the agent was available for split or direct agent calls for any split and SPLIT was the split the agent was logged into the longest (Generic 1 and Generic 3, agents in multiple splits). Time is only stored for the split the agent has been logged into the longest.

Table A-11. Agent Historical Database Items (Contd)

Database Item	Description
TI_OTHERTIME	Time during the collection interval that the agent was doing other work. For Generic 3, other work includes: while in Auto-In or Manual-In mode, the agent put a call on hold and performed no further action, dialed to place a call or activate a feature, or a personal call is ringing with no further activity. For Generic 1, Generic 2, and Generic 3, after pumpup or after an agent logged in, an ASTATE message was not received (the agent is in the UNKNOWN state). Time is only stored for the split the agent has been logged into the longest.
TI_STAFFTIME	Time during the collection interval that the agent was staffed in any split and SPLIT was the split this agent was logged into the longest (for Generic 1 and Generic 3, agents in multiple splits). Time is only stored for the split the agent has been logged into the longest.
TRANSFERRED	Number of times that the agent completed a transfer (Generic 1 = measured call to measured split and measured trunk to measured trunk, Generic 3 = all inbound calls, System 85 R2V4 and Generic 2.1 = transfers to a VDN, Generic 2.2 = split calls being transferred and transfers to a VDN or a split).

Agent Login/Logout Historical Database Items

Agent Login/Logout historical database items apply to the Agent Login/Logout (hag log) table.

Table A-12. Agent Login/Logout Historical Database Items

Database Item	Description
ACD	The ACD number for which data 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: NULL, "<".
LOGID	Login ID that was used to staff the EXTN .
LOGIN	Time at which the agent logged into this extension and split with the given login ID.
LOGOUT	Time at which the agent logged out.
OUTFLAG	If not null, indicates that agent logged out while link was down. Values: NULL, ">".
ROW_DATE	The date the agent logged in or out.
SPLIT	Split number that this EXTN is assigned to or split number that the agent logged into.

Agent Trace Historical Database Items

Agent Trace historical database items apply to the Agent Trace (ag_actv) table. **Optional** database items collect data only when those items are selected in the System Setup: Agent Trace Record Contents window. To receive a report containing optional Agent Trace historical database items, a custom report must be created.

Table A-13. Agent Trace Historical Database Items

Database Item	Description
ACD	The ACD number for which data was collected.
DIRECTION	Direction of the call — IN or OUT.
DURATION	Time in the given work state (work mode and direction).
EVENT_TIME	Time of day (hour, minute, and second) the work mode or direction changed.
LOGID	Login ID that was used to staff the extension.
RECONNECT	This event represents the agent reconnecting to the call after putting it on hold.
ROW_DATE	The date of the agent's work mode or direction change.
SPLIT	Split number that the extension is assigned to or split 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.
WORKMODE	Work mode the agent was in — AVAIL, ACD, ACW, AUX, DACD, DACW, RING, UNKNOWN, OTHER, or UNSTAFF.
WMODE_SEQ	A number associated with each event (change of work mode or direction). If more than one event occurs in the same second, this number denotes the order of events.
Optional Database Items	
ASSIST_ACTV	The agent requested supervisor assistance (pressed the ASSIST button).
CALLER_HOLD	The call was put on hold.
CALLING_PTY	The calling party identification.
CONFERENCE	The agent activated a conference.
DIGITS_DIALED	Digits the agent dialed.
EXT_CALL_ORIG	The agent originated an external call. This database item is only available with Generic 2.2, and Generic 3.

Table A-13. Agent Trace Historical Database Items (Contd)

Database Item	Description
KEYBD_DIALED	The call was keyboard-dialed. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
MCT	The agent activated a malicious call trace. This database item is only available with System 85 R2V4, Generic 2, and Generic 3r.
TRANSFERRED	The agent transferred the call.
WORKCODE	The call work code entered for the call. This database item is only available with Generic 3 and Generic 2.2 switches that have the Call Work Codes feature.

Trunk Group Historical Database Items

Trunk Group historical 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.

Table A-14. Trunk Group Historical Database Items

Database Item	Description
ABNCALLS	Number of split and direct agent INCALLS that were abandoned by the caller. If the switch has the Call Vectoring feature, this includes calls that were abandoned from vector processing. For Generic 2.2, this includes calls that were abandoned from the VDN. For Generic 3, this includes all calls that were abandoned.
ABNQUECALLS	Number of ABNCALLS that were abandoned while in queue.
ABNRINGCALLS	Number of ACDCALLS that were abandoned while ringing at an agent position. This database item is only available with Generic 2 and Generic 3.
ABNVECCALLS	Number of ABNCALLS that were abandoned while in vector processing. This includes calls that were abandoned while in queue or ringing at an agent position. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.
ACD	ACD number for which data was collected.
ACDCALLS	Number of split or direct agent INCALLS that were answered by an agent.
ALLINUSETIME	Duration of all all-trunks-busy periods during the collection interval (includes trunks that are maintenance busy).
AUDIO	Number of audio difficulty problems reported.
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a "queue to main split" command. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.
BH_ABNCALLS	Busy hour incoming calls abandoned (Daily table only).
BH_ACDCALLS	Busy hour incoming calls answered (Daily table only).
BH_ALLINUSETIME	Busy hour length of time all trunks were in use (Daily table only).
BH_BUSYCALLS	Busy hour incoming calls forced busy (Daily table only).
BH_DISCCALLS	Busy hour incoming calls disconnected (Daily table only).

Table A-14. Trunk Group Historical Database Items (Contd)

Database Item	Description
BH_INCALLS	Busy hour incoming calls (Daily table only).
BH_INTIME	Duration of busy hour incoming calls (Daily table only).
BH_OABNCALLS	Busy hour outgoing calls abandoned (Daily table only).
BH_OACDCALLS	Busy hour outgoing calls answered (Daily table only).
BH_OTHERCALLS	Busy hour outgoing other calls. This includes forced busy calls, forced disconnect calls, and calls connected to non-ACD destinations (Daily table only).
BH_OTHERCALLS	Busy hour incoming other calls. This includes forced busy calls, forced disconnect calls, and calls connected to non-ACD destinations (Daily table only).
BH_OUTCALLS	Busy hour outgoing calls (Daily table only).
BH_OUTTIME	Duration of busy hour outgoing calls (Daily table only).
BH_STARTTIME	Hour for which data was collected (Daily table only).
BLOCKAGE	Number of outbound call attempts that were blocked because all trunks were busy. This database item is only available with System 85 R2V4 and Generic 2.
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch.
COMPLETED	Number of OUTCALLS that were completed (far-end answers). This database item is only available with Generic 1.1 and Generic 3.
CONNECTCALLS	Number of INCALLS that were answered at a station that were not split or direct agent calls.
DISCCALLS	Number of INCALLS that were disconnected by the switch.
FAILURES	Number of trunk failures for this TKGRP . 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 database item is only available with System 85 and Generic 2.
INCALLS	Number of inbound calls that were carried by this TKGRP . INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.
INTERVAL	Length of the intrahour interval (Intrahour table only).
INTIME	Duration of INCALLS (from the time the trunk is seized until the trunk is dropped).

Table A-14. Trunk Group Historical Database Items (Contd)

Database Item	Description
MBUSYTIME	Duration of all maintenance-busy periods for this TKGRP during the collection interval.
O_ABNCALLS	Number of OUTCALLS that were abandoned by the receiving end while waiting for an available agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_ACDCALLS	Number of OUTCALLS that were offered to one or more splits and answered by an agent in one of those splits. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_OTHERCALLS	Number of outbound split or direct agent calls on the trunk group that were forced busy or had an unknown dispositions, for example, calls that were abandoned before reaching ACD processing. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
OTHERCALLS	Number of INCALLS that were neither answered nor abandoned. OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS
OUTCALLS	Number of outbound calls that were carried by this TKGRP . OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS
OUTTIME	Duration of OUTCALLS (from the time the trunk is seized until the trunk is dropped).
ROW_DATE	Date on which data was collected.
SETUPTIME	Amount of time until OUTCALLS completed. (from the time the trunk is seized until answer supervision or SMDR answer time out). This database item is only available with Generic 1 and Generic 3.
SHORTCALLS	Number of calls that occupied a trunk in the trunk group for less than two seconds.
SPLIT	Split this TKGRP terminates to.
STARTTIME	Start time for the interval for which data was collected (Intrahour table only).
TKGRP	Trunk group number for which data was collected.

Table A-14. Trunk Group Historical Database Items (Contd)

Database Item	Description
TRANSFERRED	Number of calls that were transferred to another destination. (Generic 1 = measured calls to a measured split and measured trunk to measured trunk, Generic 3 = all calls, System 85 R2V4 and Generic 2.1 = transfers to VDNs and splits, Generic 2.2 = split calls being transferred and transfers to VDNs and splits)
TRUNKS	Current number of trunks assigned to this TKGRP .
VDN	VDN this TKGRP terminates to. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.
VECTOR	Vector the VDN terminates to. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.

Trunk Historical Database Items

Trunk historical database items apply to the Intrahour Trunk (ht trunk), Daily Trunk (dt trunk), Weekly Trunk Group (wt trunk), and Monthly Trunk Group (mt trunk) tables, except as noted.

Table A-15. Trunk Historical Database Items

Database Item	Description
ABNCALLS	Number of split INCALLS that were abandoned by the caller. If the switch has the Call Vectoring feature, this includes calls that were abandoned from vector processing. For Generic 2.2, this includes calls that were abandoned from the VDN. For Generic 3, this includes all calls that were abandoned.
ACD	ACD number for which data was collected.
ACDCALLS	Number of split and direct agent INCALLS answered by an agent.
AUDIO	Number of audio difficulty problems reported.
EQLOC	Trunk number (physical equipment location) for which data was collected.
FAILURES	Number of trunk failures. 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 database item is only available with System 85 and Generic 2.
INCALLS	Number of inbound calls that were carried by the trunk. This includes calls with short holding times, but does not include calls that had a trunk failure.
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.
INTERVAL	Length of the intrahour interval (Intrahour table only).
INTIME	Duration of INCALLS (from the time the trunk is seized until the trunk is dropped).
MBUSYTIME	Duration of all maintenance-busy periods for the trunk during the collection interval.

Table A-15. Trunk Historical Database Items (Contd)

Database Item	Description
O_ABNCALLS	Number of OUTCALLS that were abandoned by the receiving end while waiting for an available agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_ACDCALLS	Number of OUTCALLS that were answered by an agent. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
O_OTHERCALLS	Number of outbound split or direct agent calls on the trunk that were forced busy or had an unknown dispositions, for example, calls that were abandoned before reaching ACD processing. This database item is only available with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.
OTHERCALLS	Number of inbound split and direct agent calls on the trunk that were not answered or abandoned. This includes forced busy calls, forced disconnect calls, and calls with unknown dispositions.
OUTCALLS	Number of outbound calls that were carried by the trunk. OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS
OUTTIME	Duration of OUTCALLS (from the time the trunk is seized until the trunk is dropped).
SHORTCALLS	Number of inbound and outbound calls that occupied the trunk for less than two seconds.
STARTTIME	Start time for the interval for which data was collected (Intrahour table only).
ROW_DATE	Date on which data was collected.
TKGRP	Trunk group number that the trunk is assigned to.

Vector Historical Database Items

Vector historical database items apply to the Intrahour Vector (hvector), Daily Vector (dvector), Weekly Vector (wvector), and Monthly Vector (mvector) tables, except as noted.

Table A-16. Vector Historical Database Items

Database Item	Description
ABNCALLS	Number of INCALLS that were abandoned by the caller while in vector processing.
ABNQUECALLS	Number of ABNCALLS that were abandoned while in queue.
ABNRINGCALLS	Number of ABNCALLS that were abandoned while ringing at an agent position. This database item is only available with Generic 2 and Generic 3.
ABNTIME	Time ABNCALLS waited in the vector or ringing before being abandoned.
ACD	ACD number for which data was collected.
ACDCALLS	Number of split and direct agent calls that were answered by an agent. This includes calls from “queue to main split,” “check backup split,” “messaging split,” “route to” split, and “adjunct routing” commands.
ADJATTEMPTS	Number of adjunct routing attempts for calls processed by this VECTOR . This database item is only available with Generic 3 switches that have the ASAI feature.
ADJROUTED	Number of adjunct routing calls redirected by an adjunct. This database item is only available with Generic 3 switches that have the ASAI feature.
ANSTIME	Time split and direct agent calls waited in the vector or ringing before an agent answered.
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a “queue to main split” command. MAINCALLS = ACDCALLS – BACKUPCALLS This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch.
BUSYTIME	Duration of BUSYCALLS (from the time the call entered the vector until a busy signal was given).

Table A-16. Vector Historical Database Items (Contd)

Database Item	Description
DISCCALLS	Number of INCALLS that were disconnected by the switch.
DISCTIME	Duration of DISCCALLS (from the time the call entered the vector until the end of the announcement, if any). This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.
GOTOCALLS	Number of OUTFLOWCALLS that were redirected to another vector by way of a "go to vector" command.
GOTOTIME	Time all GOTOCALLS spent in this VECTOR before being redirected.
INCALLS	Number of inbound calls that were processed by this VECTOR (this includes INFLOWCALLS). INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.
INFLOWCALLS	Number of calls that were redirected into this VECTOR by way of a "go to vector" or "route to" VDN command.
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to an off-premises destination.
INTERVAL	Length of the intrahour interval (Intrahour table only).
INTIME	Time spent in the vector executing steps.
LOOKATTEMPTS	Number of look-ahead interflow attempts for calls processed by this VECTOR . This database item is only available with Generic 2.2, and Generic 3 switches that have the Look-Ahead Interflow feature.
LOOKFLOWCALLS	Number of INTERFLOWCALLS that were redirected by way of the Look-Ahead Interflow feature. This database item is only available with Generic 2.2, and Generic 3 switches that have the Look-Ahead Interflow feature.
OTHERCALLS	OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS This includes forced busy calls, forced disconnect calls, and outflow calls.
OTHERTIME	Time OTHERCALLS spent in the vector until the disposition was known.
OUTFLOWCALLS	Number of INCALLS that were redirected to another destination by way of a "route to," "adjunct routing," or "go to vector" command. Does not include calls that route to a split (G3).

Table A-16. Vector Historical Database Items (Contd)

Database Item	Description
OUTFLOWTIME	Duration of OUTFLOWCALLS (time spent in this VECTOR before being redirected).
RINGCALLS	Number of split and direct agent calls that rang at agent positions. This database item is only available with Generic 2 and Generic 3.
RINGTIME	Time split and direct agent calls spent ringing at agent positions independent of final disposition. This database item is only available with Generic 2 and Generic 3.
ROW DATE	Date on which data was collected.
STARTTIME	Start time for the interval for which data was collected (Intrahour table only).
VECTOR	Vector number that this row represents.

VDN Historical Database Items

VDN historical database items apply to the Intrahour VDN (hvdn), Daily VDN (dvdn), Weekly VDN (wvdn), and Monthly VDN (mvdn) tables, except as noted.

Table A-17. VDN Historical Database Items

Database Item	Description
ABNCALLS1-10	Number of abandons in each of the time periods administered for the call profiles.
ABNCALLS	Number of INCALLS that were abandoned by the caller while carried by the VDN.
ABNQUECALLS	Number of ABNCALLS (split or direct agent calls) that were abandoned while in a split or direct agent queue.
ABNRINGCALLS	Number of ABNCALLS (split or direct agent calls) that were abandoned by the caller while ringing at the agent position. This database item is only available with Generic 2 and Generic 3.
ABNTIME	Time caller waited before abandoning.
ACCEPTABLE	Number of ACDCALLS and CONNECTCALLS that were connected within the predefined acceptable service level. In the case of ACDCALLS , this means “answered by an agent.”
ACD	ACD number for which data was collected.
ACDCALLS	Number of split and direct agent calls that were answered by an agent. This includes calls from “queue to main split,” “check backup split,” “messaging split,” “route to” split, and “adjunct routing” to a split or direct agent commands.
ACDTIME	Talk time of all ACDCALLS (does not include hold time).
ACWTIME	Time agent spent in ACW associated with split or direct agent calls.
ADJATTEMPTS	Number of adjunct routing attempts for calls carried by this VDN . This database item is only available with Generic 3 switches that have the ASAI feature.
ADJROUTED	Number of calls that were routed by an adjunct. This database item is only available with Generic 3 switches that have the ASAI feature.
ANSCONNCALLS1-10	Number of times callers were answered by agents or connected to non-ACD destinations during each of the time periods set up for call profiles. This includes ACD and extension calls (by way of a “route to” command). For System 85 R2V4 and Generic 2.1, this is the time before ringing starts on extension calls.

Table A-17. VDN Historical Database Items (Contd)

Database Item	Description
ANSTIME	Time split and direct agent calls waited in the associated vector or ringing before being answered.
BACKUPCALLS	Number of ACDCALLS that were delivered to the split by a vector command other than a "queue to main split" command. MAINCALLS = ACDCALLS – BACKUPCALLS This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches with the Call Vectoring feature.
BH_ABNCALLS	Busy hour calls abandoned (Daily table only).
BH_ACDCALLS	Busy hour incoming calls answered (Daily table only).
BH_ACDTIME	Duration of busy hour answered calls (Daily table only).
BH_BUSYCALLS	Busy hour calls forced busy (Daily table only).
BH_DISCCALLS	Busy hour calls disconnected (Daily table only).
BH_OTHERCALLS	Busy hour other calls. This includes forced busy and disconnected calls, calls that outflowed from the VDN and calls that connected to a non-ACD destination (Daily table only).
BH_STARTTIME	Hour for which data was collected (Daily table only).
BH_VDNCALLS	Busy hour calls offered to the VDN (Daily table only).
BUSYCALLS	Number of INCALLS that were given a busy signal by the switch.
BUSYTIME	Duration of BUSYCALLS (from the time the call entered the vector until the trunk goes idle).
CONNECTCALLS	Number of non-ACD INCALLS that were delivered to a station by way of a "route to" or "adjunct routing" command and were not abandoned. For System 85 R2V4 and Generic 2.1, non-ACD abandons are not tracked, so all calls that route to a station are included in CONNECTCALLS .
CONNECTTIME	For Generic 2.2 and Generic 3, time CONNECTCALLS waited before being answered. For System 85 R2V4 and Generic 2.1, this is the time before ringing starts.
DISCCALLS	Number of INCALLS that were disconnected by the switch.
DISCTIME	Duration of DISCCALLS (from the time the call entered the vector until the end of the announcement, if any). This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.
ILN	Internal line number of the VDN .
INCALLS	Number of inbound calls that were directed to the VDN . INCALLS = ACDCALLS + ABNCALLS + OTHERCALLS

Table A-17. VDN Historical Database Items (Contd)

Database Item	Description
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.
INFLOWCALLS	Number of calls that were redirected by way of a "route to" VDN command into the VDN .
INTERFLOWCALLS	Number of OUTFLOWCALLS that were redirected to an off-premises destination.
INTERVAL	Length of the intrahour interval (Intrahour table only).
INTIME	Time spent by INCALLS in this VDN. INTIME = ACDTIME + ABNTIME + OTHERTIME + ANSTIME NOTE: In R3 CMS, the time the caller was put on hold is not stored in the VDN tables. This can be calculated as: Hold time = INTIME - ACDTIME - ABNTIME - OTHERTIME - ANSTIME. On Generic 2 and System 85 there are Multiple Call Handling scenarios in which active VDN calls have only INTIME collected. In this case, hold time cannot be calculated.
LOOKATTEMPTS	Number of look-ahead interflow attempts for calls carried by the VDN . This database item is only available with Generic 2.2, and Generic 3 switches that have the Look-Ahead Interflow feature.
LOOKFLOWCALLS	Number of INTERFLOWCALLS that were redirected by way of the Look-Ahead Interflow feature. This database item is only available with Generic 2.2, and Generic 3 switches that have the Look-Ahead Interflow feature.
OTHERCALLS	OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS This includes forced busy calls, forced disconnect calls, and non-ACD calls that were answered.
OTHERTIME	Duration of OTHERCALLS (from the time the call entered the associated vector until the call left the VDN).
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.
OUTFLOWTIME	Time OUTFLOWCALLS were carried by the VDN before being redirected (from the time the call entered the associated vector until the call's disposition was known).
PERIOD1-9	Time periods defining the way answers, connects, and abandons are collected for the call profiles.
PERIODCHG	Indicates whether the periods for call profiles were changed during the collection interval or not.

Table A-17. VDN Historical Database Items (Contd)

Database Item	Description
RINGCALLS	Number of split or direct agent calls that rang at agent positions. This database item is only available with Generic 2 and Generic 3.
RINGTIME	Time split or direct agent calls spent ringing at agent positions. This database item is only available with Generic 2 and Generic 3.
ROW_DATE	Date on which data was collected.
SERVICELEVEL	Number of seconds in which calls must be handled to be considered acceptable.
STARTTIME	Start time for the interval for which data was collected (Intrahour table only).
SVCLEVELCHG	Indicates whether the service level was changed during the collection interval or not.
TRANSFERRED	Number of calls that were transferred to another destination (Generic 3 = all VDN calls, System 85 R2V4 and Generic 2.1 = transfers to a VDN or split, Generic 2.2 = split calls and transfers to a VDN).
VDN	Vector directory number (extension) that this row represents.
VECTOR	Vector number that this VDN is assigned to.

Call Work Codes Historical Database Items

Call Work Codes historical 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.

Table A-18. Call Work Codes Historical Database Items

Database Item	Description
ACD	ACD number for this data.
ACDCALLS	Number of split and direct agent calls that were answered by an agent who entered this call work code.
ACDTIME	Talk time of ACDCALLS with this call work code (does not include hold time).
ACWTIME	Time an agent spent in ACW (after call work) associated with this call work code. This only includes call-related ACW time.
CWC	Call work code that this data row represents.
INCOMPLETE	Indicates whether the data for this collection interval is complete or not.
INTERVAL	Length of the intrahour interval (Intrahour table only).
ROW_DATE	Date on which data was collected.
STARTTIME	Start time for the interval for which data was collected (Intrahour table only).

Current Day Forecast Configuration Database Items

The Current Day Forecast Configuration database items collect values entered in the Current Day Configuration window, and apply only to the Current Day Configuration (f_cday) table.

Table A-19. Current Day Configuration Database Items

Database Item	Description
ACD	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: 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	The date of the forecast.
SPLIT	Split 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.

Current Day Forecast Report Database Items

The Current Day Forecast Report database items collect data for Current Day forecasts, and apply only to the Current Day Report (f_cdayrep) table. Forecast data for a split is automatically generated when the Forecast Manager runs (if you have also completed a Current Day Configuration for the split).

Table A-20. Current Day Report Database Items

Database Item	Description
ACD	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	The objective average number of seconds for an agent to service a call.
AVGSPEEDANS	The objective average speed of answer in seconds for this time of call.
FCALLS	Number of forecast calls carried.
INTERVAL	Length of intrahour interval.
NUMAGREQ	Number of agents required to handle FCALLS .
RAGOCC	The resulting maximum percentage of time that an agent will be on ACD calls.
RAVGSPEEDANS	The resulting average speed of answer in seconds for this type of call.
ROW_DATE	Date of the forecast.
RSERVLEVELP	The resulting percentage of calls to be handled within SERVLEVELT seconds.
SERVLEVELP	The objective percentage of calls to be handled within SERVLEVELT seconds.
SERVLEVELT	The number of seconds within which SERVLEVELP percent of calls are to be answered (service level time).
SPLIT	Split number.
STARTTIME	Start of intrahour interval (on 24-hour clock).

Exceptions Historical Database Items

In the following tables, the database item **EXTYPE** (or **REASON** for data collection exceptions table) list numerical values associated with exception types. These values are listed because CMS stores exception types with numerical values. CMS then translates these numbers into the text you see in your standard exception reports. To select specific exception types for a custom report, you must enter the numerical value(s) in your **Select rows where:** statement.

Agent Historical Exception Database Items

The Agent Historical Exception table name is `agex`.

Table A-21. Agent Exception Database Items

Database Item	Description
ACD	The ACD the agent was logged into.
EXTYPE	The type of exception that occurred:
	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‡

* Available only on System 85 R2V4, Generic 2, and Generic 3.

† Available only with Generic 2.2 switches that have the ASAI Gateway Interface feature and Generic 3 switches that have the ASAI feature.

** Available only with Generic 2.1 or later and Generic 3.

‡ Available only with Generic 3 switches that have the ASAI feature.

Table A-21. Agent Exception Database Items (Contd)

Database Item	Description
LOGID	The login ID of the agent who had the exception.
ROW_DATE	The date on which the exception occurred.
ROW_TIME	The time at which the exception occurred.
SPLIT	The split in which the agent was doing work when the exception occurred.
THRESHOLD	The 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	The 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.

Split Historical Exception Database Items

The Split Historical Exception table name is spex.

Table A-22. Split Exception Database Items

Database Item	Description																						
ACD	The ACD of the split.																						
EXTYPE	The 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	The date on which the exception occurred.																						
ROW_TIME	The time at which the exception occurred.																						
SPLIT	The split in which the exception occurred.																						
THRESHOLD	The limit, as a number of occurrences, administered for the exception type. An exception occurs when the split's activity falls outside of that limit.																						
TIME	The limit, as a number of seconds, administered for timed exceptions types. An occurrence is logged against the threshold when the split's activity falls outside of that limit.																						

* Available only with Generic 1.

† Available only with the Call Vectoring feature.

** Available only with Generic 3.

Trunk Group Historical Exception Database Items

The Trunk Group Historical Exception table name is `tgex`.

Table A-23. Trunk Group Exception Database Items

Database Item	Description																				
ACD	The ACD of the trunk group.																				
EXTYPE	The 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	The trunk location where the exception occurred.																				
LOGID	The login ID of the agent reporting audio difficulty.																				
ROW_DATE	The date on which the exception occurred.																				
ROW_TIME	The time at which the exception occurred.																				
THRESHOLD	The 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	The 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	The number of the trunk group where the exception occurred.																				

VDN Historical Exception Database Items

The VDN Historical Exception table name is `vdnex`. VDN exceptions are available only with the Vectoring feature.

Table A-24. VDN Exception Database Items

Database Item	Description																												
ACD	The ACD of the VDN.																												
EXTYPE	The 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 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</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 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	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 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																												
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	The date on which the exception occurred.																												
ROW_TIME	The time at which the exception occurred.																												
THRESHOLD	The 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	The 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.																												
VDN	The VDN for which the exception occurred.																												
VECTOR	The vector number associated with the exception.																												

Vector Historical Exception Database Items

The Vector Historical Exception table name is `vecex`. Vector exceptions are available only with the Vectoring feature.

Table A-25. Vector Exception Database Items

Database Item	Description														
ACD	The ACD of the vector.														
EXTYPE	The 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 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 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 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	The date on which the exception occurred.														
ROW_TIME	The time at which the exception occurred.														
THRESHOLD	The 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	The 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.														
VECTOR	The vector number on which the exception occurred.														

**Malicious Call Trace Historical Exception
Database Items**

The Malicious Call Trace Historical Exception table name is `mctex`.

Table A-26. Malicious Exception Database Items

Database Item	Description
ACD	The ACD on which the malicious call was recorded.
ANI_SID	The billing number or phone number from which the malicious call originated (available only if the switch has ANI/SID service).
EQLOC	The location of the trunk that carried the malicious call.
EXTYPE	The type of exception that occurred: Numerical Value Type 90 Malicious call
LOGID	The login ID of the agent reporting the malicious call.
ROW_DATE	The date on which the malicious call was reported.
ROW_TIME	The time at which the malicious call was reported.
SPLIT	The split of the agent reporting the malicious call.
TKGRP	The number of the trunk group that carried the malicious call.
VDN	The VDN that carried the malicious call. This database item is only available with System 85 R2V4, Generic 2, and Generic 3 switches that have the Call Vectoring feature.

Data Collection Historical Exception Database Items

The Data Collection Historical Exception table name is linkex.

Table A-27. Data Collection Exception Database Items

Database Item	Description																
ACD	The ACD for which data collection was interrupted.																
DURATION	The length of time for which data collection was off.																
REASON	The 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	The date on which data collection was interrupted.																
ROW_TIME	The time at which data collection was interrupted.																

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 time to abandon
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 after call work time
AVG_ACW_TIME_SUM	sum(ACWTIME) / sum(ACDCALLS)	Total average after call work time
AVG_AGENT_ACW_SUM	sum(TOTAL_ACWTIME) / sum(TOTAL_ACDCALLS)	Average after call work time
AVG_AGENT_ACW_TIME	TOTAL_ACWTIME / TOTAL_ACDCALLS	Average after call work time
AVG_AGENT_TALK_SUM	sum(TOTAL_ACDTIME) / sum(TOTAL_ACDCALLS)	Average ACD talk time
AVG_AGENT_TALK_TIME	TOTAL_ACDTIME / TOTAL_ACDCALLS	Average ACD talk time
AVG_ANSWER_SPEED	ANSTIME / ACDCALLS	Average speed of answer
AVG_ANSWER_SPEED_SUM	sum(ANSTIME) / sum(ACDCALLS)	Average speed of answer
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)	Average hold time

Calculation Name	Calculation	Description
AVG_INB_ACD_TIME_SUM	$\text{sum}(\text{ACD\_TIME} - \text{O\_ACD\_TIME}) / \text{INBOUND\_ACDCALLS}$	Average inbound ACD talk time
AVG_INB_ACW_TIME_SUM	$\text{sum}(\text{ACW\_TIME} - \text{O\_ACW\_TIME}) / \text{INBOUND\_ACDCALLS}$	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	$\text{sum}(\text{O\_ACW\_TIME}) / \text{sum}(\text{O\_ACWCALLS})$	Total outbound average after call work talk time
AVG_OUTB_ACW_TIME	$\text{O\_ACW\_TIME} / \text{O\_ACDCALLS}$	Outbound average after call work talk time
AVG_POS_STAFF	$\text{I\_STAFF\_TIME} / (\text{INTERVAL} * 60)$	Average positions staffed
AVG_POS_STAFF_SUM	$\text{sum}(\text{I\_STAFF\_TIME}) / \text{sum}(\text{INTERVAL} * 60)$	Total average positions staffed
AVG_TALK_TIME_IN	$(\text{ACW\_IN\_TIME} + \text{AUX\_IN\_TIME}) / (\text{ACW\_IN\_CALLS} + \text{AUX\_IN\_CALLS})$	Average extension-in talk time
AVG_TALK_TIME_IN_SUM	$\text{sum}(\text{ACW\_IN\_TIME} + \text{AUX\_IN\_TIME}) / \text{sum}(\text{ACW\_IN\_CALLS} + \text{AUX\_IN\_CALLS})$	Total average extension-in talk time
AVG_TALK_TIME_OUT	$(\text{ACW\_OUT\_TIME} + \text{AUX\_OUT\_TIME}) / (\text{ACW\_OUT\_CALLS} + \text{AUX\_OUT\_CALLS})$	Average extension-out talk time
AVG_TALK_TIM_OUT_SUM	$\text{sum}(\text{ACW\_OUT\_TIME} + \text{AUX\_OUT\_TIME}) / \text{sum}(\text{ACW\_OUT\_CALLS} + \text{AUX\_OUT\_CALLS})$	Average extension-out talk time
AVG_TRK_HOLD_IN_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Average inbound trunk holding time
AVG_TRK_HOLD_OUT_SUM	$\text{sum}(\text{OUTTIME}) / \text{sum}(\text{OUTCALLS})$	Average outbound trunk holding time
AVG_TRK_HOLD_TIME	$(\text{INTIME} + \text{OUTTIME}) / (\text{INCALLS} + \text{OUTCALLS})$	Average trunk holding time

Calculation Name	Calculation	Description
AVG_TRK_HOLD_TIME_IN	INTIME / INCALLS	Average inbound trunk holding time
AVG_TRK_HOLD_TIM_OUT	OUTTIME / OUTCALLS	Average outbound trunk holding time
AVG_VDN_TIME	(INTIME / INCALLS)	Average time in VDN
AVG_VDN_TIME_SUM	sum(INTIME) / sum(INCALLS)	Total average time in VDN
AVG_VEC_TIME	INTIME / INCALLS	Average time in vector
AVG_VEC_TIME_SUM	sum(INTIME) / sum(INCALLS)	Total average time in vector
BUSY_DISCONNECT	(BUSYCALLS + DISCCALLS)	Number of split calls that were given a busy signal or disconnected
CALLS_PER_POS	(60 * INTERVAL * ACDCALLS) / I_STAFFTIME)	Calls per position staffed
CALLS_PER_POS_SUM	(sum(60 * INTERVAL * ACDCALLS)) / sum(I_STAFFTIME)	Total calls per position staffed
EXT_CALL_IN	(ACWINCALLS + AUXINCALLS)	Incoming extension calls
EXT_CALL_OUT	(ACWOUTCALLS + AUXOUTCALLS)	Outgoing extension calls
EXT_IN_TIME	(ACWINTIME + AUXINTIME)	Time on incoming extension calls
EXT_OUT_TIME	(ACWOUTTIME + AUXOUTTIME)	Time on outgoing extension calls
INBOUND_ACDCALLS	(sum(ACDCALLS - O_ACDCALLS))	Total inbound ACD calls
PERCENT_ACD_TIME	100 * ((I_ACDTIME + I_ACWTIME) / I_STAFFTIME)	Percent ACD time
PERCENT_ACD_TIME_SUM	100 * (sum(I_ACDTIME + I_ACWTIME)) / sum(I_STAFFTIME)	Percent ACD time totaled
PERCENT_ALL_BUSY	100 * (ALLINUSETIME / SECS_PER_DAY)	Percentage of time all trunks in use
PERCENT_ALL_BUSY_SUM	100 * (sum(ALLINUSETIME) / sum(SECS_PER_DAY))	Percentage of time all trunks in use
PERCENT_AUX_WORK	100 * (I_AUXTIME / I_STAFFTIME)	Percent AUX time

Calculation Name	Calculation	Description
PERCENT_AUX_WORK_SUM	$100 * (\text{sum}(\text{I\_AUXTIME}) / \text{sum}(\text{I\_STAFFTIME}))$	Total percent AUX time
PERCENT_CALL_ABAN	$100 * (\text{ABNCALLS} / (\text{CALLSOFFERED}))$	Percentage of calls abandoned
PERCENT_CALL_ANS	$100 * (\text{ACDCALLS} / \text{CALLSOFFERED})$	Percentage of calls answered in service level
PERCENT_CALL_ANS_SUM	$100 * (\text{sum}(\text{ACDCALLS}) / \text{sum}(\text{CALLSOFFERED}))$	Total percent of calls answered in service level
PERCENT_MBUSY	$100 * (\text{MBUSYTIME} / (\text{SECS\_PER\_DAY} * \text{TRUNKS}))$	Percent time a trunk was maintenance busy
PERCENT_MBUSY_SUM	$100 * (\text{sum}(\text{MBUSYTIME}) / (\text{avg}(\text{SECS\_PER\_DAY}) * \text{sum}(\text{TRUNKS})))$	Percent time all trunks were maintenance busy
PERCENT_SERV_LVL_SPL	$100 * (\text{ACCEPTABLE} / \text{CALLSOFFERED})$	Percent of split calls answered within service level
PERCENT_SERV_LVL_VDN	$100 * (\text{sum}(\text{ACCEPTABLE}) / \text{sum}(\text{INCALLS}))$	Percent of VDN calls answered within service level
PERCENT_VDN_ABAN	$100 * (\text{sum}(\text{ABNCALLS}) / \text{sum}(\text{INCALLS}))$	Percent of VDN calls abandoned
PERCENT_VDN_ANSCONN	$100 * (\text{sum}(\text{ACDCALLS} + \text{CONNECTCALLS}) / \text{sum}(\text{INCALLS}))$	Percent of VDN calls answered/connected within service level
SECS_PER_DAY	$(24 * 60 * 60)$	Seconds per day
TOTAL_ACDCALLS	$\text{ACDCALLS} + \text{DA\_ACDCALLS}$	Total ACD calls
TOTAL_ACDTIME	$\text{ACDTIME} + \text{DA\_ACDTIME}$	Total ACD time
TOTAL_ACWTIME	$\text{ACWTIME} + \text{DA\_ACWTIME}$	Total ACW time
TOTAL_I_ACDTIME	$\text{I\_ACDTIME} + \text{DA\_I\_ACDTIME}$	Total interval-based ACD time
TOTAL_I_ACWTIME	$\text{I\_ACWTIME} + \text{DA\_I\_ACWTIME}$	Total interval-based ACW time

Call Vectoring and Related Generic 3 Features

B

How CMS Supports Call Vectoring and Related Features

This appendix gives an overview of the Call Vectoring, Call Prompting, CallVisor™ ASAI (hereafter called ASAI), and Look-Ahead Interflow features on the DEFINITY Communications System Generic 3 and presents examples of vectors that can be administered using the Vectoring feature of Release 3.0 Call Management System (CMS). The Vectoring feature of CMS enables CMS to work with these Generic 3 features.

With the Vectoring feature of the CMS, you can:

- Administer vectors and other aspects of the Call Vectoring, Call Prompting, ASAI, and Look-Ahead Interflow features on the PBX (Generic 3).
- Generate reports about vectors and Vector Directory Numbers (VDNs).

The Vectoring feature of CMS is not part of the standard CMS software; it must be purchased separately. Like the Vectoring feature on CMS, the Call Vectoring, Call Prompting, ASAI, and Look-Ahead Interflow features are not standard Generic 3 features; these features must be purchased separately.

To use the Vectoring feature on CMS, the Call Vectoring feature **must** be administered on the PBX. The Call Prompting, ASAI, and Look-Ahead Interflow features use vectors and, therefore, Call Vectoring must be administered on the PBX to use these features. However, the Call Prompting, ASAI, and Look-Ahead Interflow features are **not** required to use the Vectoring feature of CMS.

For more information about the Call Vectoring, Call Prompting, ASAI, and Look-Ahead Interflow features, refer to *DEFINITY Communications System Generic 1 and Generic 3i Feature Descriptions, Issue 1* (555-200-201), or *DEFINITY Communications System Generic 1 and Generic 3 Feature Descriptions, Issue 2* (555-200-201).

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, giving caller feedback (such as ringing or music) or checking the status of backup splits 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 CMS reports can be used to track vector-related call processing.

A vector can be created in CMS using the ACD Administration: Vector Contents window (see Chapter 9). As shown in Figure B-1, a vector may have up to 15 commands administered as vector steps.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents

ACD: buffalo_____

Vector: sales_____

Step	Actions and Conditions
1	go to step 8 if time of day is all 17:00__ to all 8:00__
2	go to step 9 if calls queued in split 3 > 19 pri low
3	queue to main split 3 priority low
4	wait time 12 seconds hearing ringback
5	announcement 5400
6	wait time 0 seconds hearing music
7	stop
8	disconnect after announcement 4200
9	disconnect after announcement 4201
10	
11	
12	
13	
14	
15	

Add step
Del step
Find one
Modify

Figure B-1. CMS Vector Contents Window With Sample Vector

You can also create a vector using the DEFINITY Manager I.

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 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 final digits of a DID number are administered as a VDN. The Central Office (CO) passes these digits to the PBX, which either immediately processes the digits or adds or deletes digits as needed. The PBX then connects the trunk to the vector assigned to the VDN. Thus, for DID trunk groups, the final digits dialed by the caller **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 determines a call's origin and assigns Dialed Number Identification Service (DNIS) digits to the call. The CO passes the DNIS digits to the PBX over a DID trunk group. These same digits are assigned in the PBX as a VDN. When the PBX 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 PBX.

- **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 PBX. The PBX 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 voice terminal connected to the PBX. In this case, only the VDN digits are dialed. The call is processed by the vector the VDN is assigned to.

- **Through a Listed Directory Number (LDN) and a VDN**

A VDN can be assigned as the night destination for an LDN.

VDNs can be reassigned to different vectors or deactivated while still being retained in memory in the PBX.

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. For non-vector-controlled splits, call-treatment parameters are assigned on a split basis.

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 that specify the order in which and the conditions under which treatments are given. Call treatment is based on the vector and treatments specified in the vector.

Non-Vector-Controlled Splits

Automatic-in trunk groups and call-treatment parameters are assigned to a particular ACD split. ACD calls go directly to a split queue and are given the treatment assigned to that split. Call treatment is based on the split and parameters assigned to the split.

As Figure B-2 shows, a system can have both vector-controlled and non-vector-controlled splits.

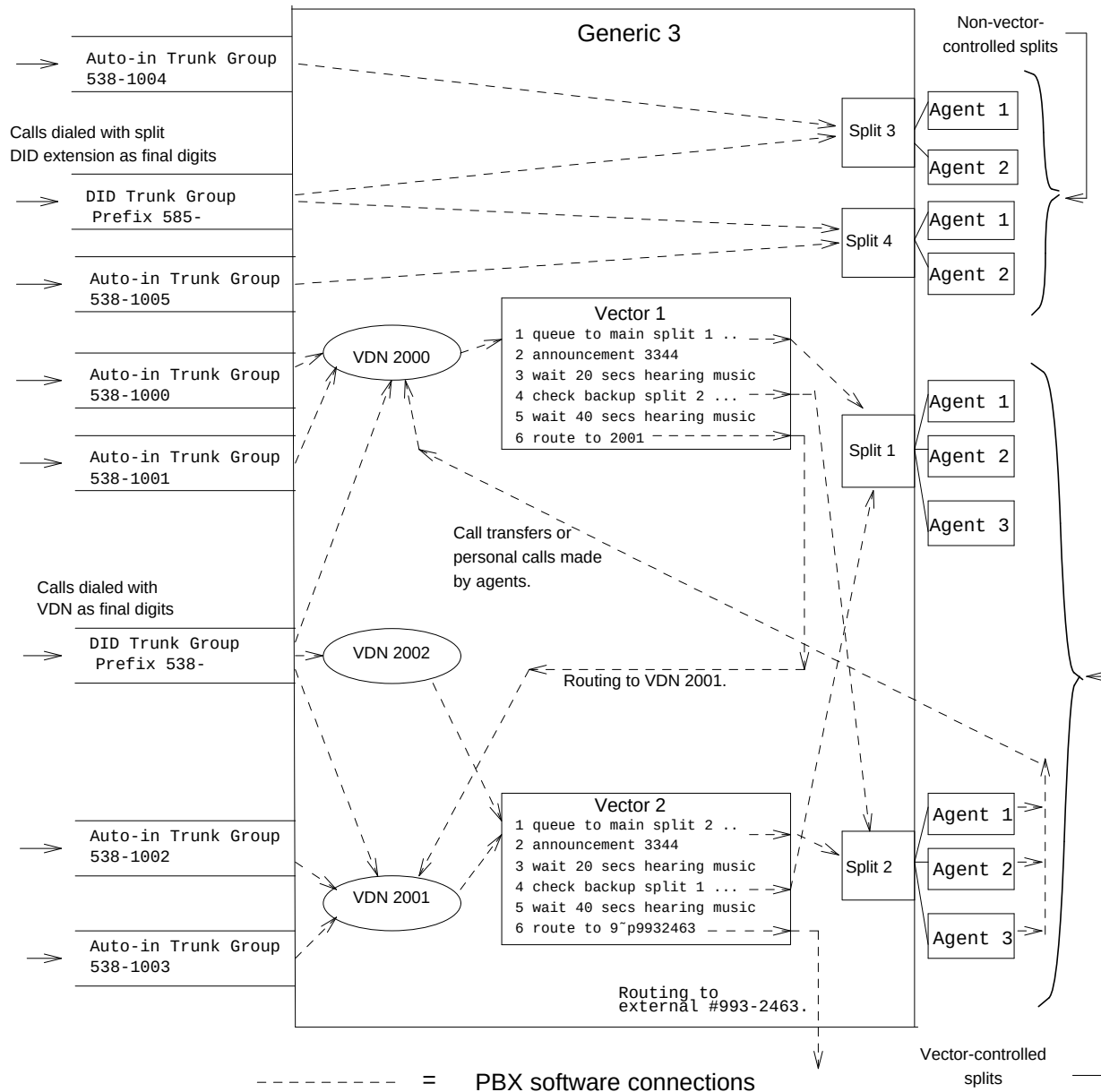


Figure B-2. Generic 3 Configuration With Vector-Controlled and Non-Vector-Controlled Splits

Increased Flexibility of Call Handling

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.

Non-vector-controlled splits can be assigned inflow and outflow levels that are based on the number of seconds the oldest call in queue has waited. This assignment determines whether calls intraflow (redirect) from one local split to another or not. In addition to oldest call wait time, with Call Vectoring the decision to intraflow calls can be based on number of calls in queue, number of staffed or available agents, or any combination of these conditions.

Answer Supervision in a Vectoring Environment

Answer supervision is a signal, sent from the PBX to the serving Central Office (CO), that tells the CO to begin recording toll charges for a call. However, while a call waits in queue, AT&T ACD software can delay sending answer supervision so that the ACD owner/operator or caller can avoid excess toll charges. The caller hears CO ringback until answer supervision is sent.

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 before the caller hears a recorded announcement or music. Answer supervision is also sent when a call is disconnected.*

The type of trunk from the CO also influences the triggering of answer supervision. For an auto-in trunk, a wait step with silence triggers answer supervision for the call. On the other hand, a wait step with silence on a dial-repeating trunk 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.

Vector Commands

Vector commands specify the treatment for specific incoming calls. Note that the following commands can be administered from CMS only if the Call Vectoring feature has been purchased for both the PBX and CMS.

- queue to main split
- wait
- announcement
- check backup split
- go to step
- go to vector
- stop
- busy
- disconnect
- route to number
- messaging split
- adjunct routing (only available if the PBX has the ASAI feature)

* Except with ISDN trunks.

The “Queue to Main Split” Command

This command queues calls to the specified split at the specified priority level. The “queue to main split” command has the following format:

queue to main split xx priority xxxxx

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 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 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 simultaneously. To queue a call to more than one split, 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) 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's queue is full. That is, the administered queue length has already been reached.
- The call is already queued to three different splits.
- A queue is not assigned to the split and no agents are available.

If vector processing encounters a “queue to main split” command that specifies a split the call is already queued to but a different priority level, the call is requeued at the new priority level.

The “Wait” Command

This command delays vector processing for a specific amount of time while callers hear silence, ringing (also called ringback), or music. The “wait” command has the following format:

wait time xxx seconds hearing xxxxxxxx

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.

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 B-1 describes the feedback an incoming-trunk caller receives for the different types of “wait” commands.

Table B-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	Caller hears silence.	Caller hears silence.
	Automatic-in	Caller hears ringback from the Central Office (CO).	Caller hears silence.
Ringback	DID	Caller hears PBX ringback.	Caller hears ringback.
	Automatic-in	Caller hears CO ringback.	Caller hears ringback.
Music	DID	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 CMS collects for a vector. When the specified wait interval expires, the PBX sends a message to CMS indicating that processing of vector steps has finished. If the specified wait interval is short (for example, two seconds), the PBX could send CMS the message indicating that processing has finished before the call is answered.

The “Announcement” Command

This command plays the announcement assigned to the specified announcement extension. The “announcement” command has the following format:

announcement xxxxx

If the call is in a split 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.

If the specified announcement is not in service, vector processing skips the command and continues with the next vector command.

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 caller hears the previous treatment (if any) until the announcement starts.

The “Check Backup Split” Command

This command checks the status of a backup split for possible queuing of a call. The call is queued to the specified split at the specified priority if the specified condition is met. The conditions and command format are as follows:

- check backup split xx priority xxxx if unconditionally
Check the specified backup split and queue the call at the specified priority level unconditionally.
- check backup split xx priority xxxx if available agents > xxxx
Check the specified backup split and queue the call at the specified priority level if the number of available agents is greater than (>) the number specified.
- check backup split xx priority xxxx if staffed agents > xxxx
Check the specified backup split and queue the call at the specified priority level if the number of staffed agents is greater than the number specified. 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 xx priority xxxx if calls queued < xxxx
Check the specified backup split and queue the call at the specified priority level if the number of queued calls is less than (<) the number specified (at the specified priority level or higher).
- check backup split xx priority xxxx if oldest call waiting < xxxx
Check the specified backup split and queue the call at the specified priority level if the oldest call in queue has waited less than (<) the number of seconds specified.

⇒ NOTE:

For the oldest call waiting condition, vector processing checks **all** calls in the specified split's queue. However, if the condition is met, the call is queued at the priority level specified in the command.

Vector processing checks the backup split only once. If the specified condition is met and an agent is available, the call is connected to the agent. If no agents are available, the call is queued to the split 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's queue is full. That is, the administered queue length has already been reached.
- The call is already queued to three different splits.
- A queue is not assigned to the split and no agents are available.

If vector processing encounters a "check backup split" command that specifies a split the call is already queued to but a different priority level, the call is requeued at the new priority level if the specified condition is met.

The "Go To Step" Command

This command allows conditional or unconditional branching to a later or an earlier step in a vector. The conditions for branching and command format are as follows:

- go to 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.

- go to step xx if available agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified step if the number of available agents in the specified split is less than ($<$) or greater than ($>$) the number specified.

- go to step xx if staffed agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified step if the number of agents logged into the specified split is less than (or greater than) the number specified.

- go to step xx if calls queued in split xx is $\leq$ (or $>$) xxxx pri xxxx

Vector processing branches to the specified step if the number of calls queued to the specified split (at the specified priority or higher) is less than (or greater than) the number specified.

- go to step xx if oldest call waiting in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified step if the time (in seconds) that the oldest call has waited in the specified split queue is less than (or greater than) the time specified.

- go to step xx if time of day is xxx xx:xx xx to xxx xx:xxxx 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 of days in the week, you may enter **all** in the blanks. For example, you may want the “go to step” command to branch to the alternate call treatment everyday after 5:00 p.m.

⇒ NOTE:

The time may be specified as am/pm or in 24-hour notation (also known as “military” time). The equivalent of 4:30 a.m. in 24-hour notation is 04:30. The equivalent of 4:30 p.m. in 24-hour notation is 16:30.

Vector processing tests for the condition specified in the “go to 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 “go to step” command. If the test fails, vector processing continues with the next step in the vector (branching does not occur).

The “Go To Vector” Command

This command allows conditional or unconditional branching to another vector. Vector processing continues at Step 1 of the specified vector. The conditions for branching and command format are as follows:

- go to vector xx if unconditionally

Vector processing always branches to the specified vector.

- go to vector xx if available agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified vector if the number of available agents in the specified split is less than ($<$) or greater than ($>$) the number specified.

- go to vector xx if staffed agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified vector if the number of agents logged into the specified split is less than (or greater than) the number specified.

- go to vector xx if calls queued in split xx is $\leq$ (or $>$) xxxx pri xxxx

Vector processing branches to the specified vector if the number of calls queued to the specified split (at the specified priority or higher) is less than (or greater than) the number specified.

- go to vector xx if oldest call waiting in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified vector if the time (in seconds) that the oldest call has waited in the specified split queue is less than (or greater than) the time specified.

- go to vector xx if time of day is xxx xx:xx xx to xxx xx:xxxx 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 of days in the week, you may enter **all** in the blanks. For example, you may want the “go to vector” command to branch to the alternate call treatment everyday after 5:00 p.m.

⇒ NOTE:

The time may be specified as am/pm or in 24-hour notation (also known as “military” time). The equivalent of 4:30 a.m. in 24-hour notation is 04:30. The equivalent of 4:30 p.m. in 24-hour notation is 16:30.

Vector processing tests for the condition specified in the “go to 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 treatment that was established before the “go to vector” command. If the test fails, vector processing continues with the next step in the vector (branching does not occur).

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 remain in queue 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 “go to step” command from the rest of the vector. See Vector 4 in the *Sample Vectors* section of this appendix.

The “Busy” Command

This command sends a busy signal and ends vector processing. The PBX 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 45 seconds, the PBX disconnects the call and, for non-ISDN calls, sends answer supervision.

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 PBX. 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 ringing. 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 PBX 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 PBX sends answer supervision before disconnecting a call. For ISDN trunks, answer supervision is not sent.

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 xxxxxxxxxxxxxxxxxxxx

The x’s in the command shown above represent the destination, which may contain as many as 16 characters.

The following are valid destinations:

- A local extension or VDN
- The attendant
- A remote extension or VDN
- An external phone number
- A non-vector-controlled split.

The destination number can also include any of the following special codes:

- ~ p (pause)
This code tells the PBX to wait 1.5 seconds 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 PBX to wait four to ten seconds before sending the digits that follow. It is used when a longer wait for dial tone is needed on outgoing-trunk calls.
- ~ m (mark)
This code allows a # or * digit to be sent as part of the destination number when, for example, a dial access code is sent to a remote PBX. Without this code, the Generic 3 will not send the # and * digits.
- ~ 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 display voice terminal by replacing each digit of the security code with an s.

Vector processing stops if the call routes successfully. That is, the PBX 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.

If a call is queued to a split when a “route to number” command is processed, the call is removed from the split queue if the routing succeeds.

The “Messaging Split” Command

This command sends a call to the specified messaging split so that the caller can leave a message for the specified extension. The “messaging split” command has the following format:

messaging split xx for extension xxxxx

If an extension is not specified or “none” is specified, the message is left for the VDN used to access the vector.

Vector processing skips a “messaging split” command and continues with the next vector command if:

- The specified split is not administered (on the PBX) as an AUDIX split or a Message Center split.
- The specified extension (or default VDN) is not administered on the PBX or is not an AUDIX or Message Center subscriber.
- The queue assigned to the specified messaging split is full.
- The link to the AUDIX is down or all AUDIX ports are out of service.

If a call is queued to a split when a “messaging split” command is processed, the call is removed from queue when the messaging split is successfully accessed.

The “Adjunct Routing” Command

This command is only available if the Call Vectoring and ASAI features are administered on the PBX. The “adjunct routing” command can be used to request call-routing information from an adjunct processor or to send information (collected by the PBX) to the adjunct. For more information about this command, see the ASAI feature description in this appendix.

How Vectors Are Processed

The Call Vectoring software 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 “go to step” and “go to vector” commands are exceptions. These commands provide conditional or unconditional branching, which directs vector processing to a step other than the next sequential step.

With conditional branching, the 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 vector specified in the command. With unconditional branching, the command does not specify a condition and, therefore, branching always occurs.

The “go to 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.

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.

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 9 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

The simplest vectors have only one step. Figure B-3 shows a vector that plays an announcement and then disconnects calls.

09/30/91	03:30 PM	Call Management System	Window 1 of 1
ACD Administration: Vector Contents			
ACD: buffalo_____			Add step Del step Find one Modify
Vector: sales_____			
Step	Actions and Conditions		
1	<u>disconnect</u> after announcement <u>4200</u>		
2			

Figure B-3. Vector 1 — Information Announcement

Vector 2

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.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents		Add step Del step Find one Modify
ACD: buffalo_____		
Vector: sales_____		
Step	Actions and Conditions	
1	queue to main split 3 priority low	
2	wait time 12 seconds hearing ringback	
3	announcement 5400	
4	wait time 0 seconds hearing music	
5		

Figure B-4. Vector 2 — Queue to Main Split With Announcement

Step 1 queues calls to split 3 at low priority. Step 2 delays vector processing for 12 seconds while callers hear ringing. Step 2 serves two purposes. First, it provides the same feedback (ringing) 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 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 ringing may confuse a caller after hearing an announcement.

Vector 3

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.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents

ACD: buffalo_____

Vector: sales_____

Step	Actions and Conditions	Add step Del step Find one Modify
1	queue to main split 3 priority low	
2	wait time 12 seconds hearing ringback	
3	announcement 5400	
4	check backup split 5 priority low if calls queued < 3	
5	wait time 0 seconds hearing music	
6		

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. 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 5 and is also queued to split 3. The call remains queued to both splits 3 and 5 until it is answered or the caller hangs up (abandons the call).

Vector 4

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.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents	
ACD: buffalo_____	Add step Del step Find one Modify
Vector: sales_____	
Step	Actions and Conditions
1	go to step 8 if time of day is all 17:00 to all 8:00
2	go to step 9 if calls queued in split 3 > 19 pri low
3	queue to main split 3 priority low
4	wait time 12 seconds hearing ringback
5	announcement 5400
6	wait time 0 seconds hearing music
7	stop
8	disconnect after announcement 4200
9	disconnect after announcement 4201
10	

Figure B-6. Vector 4 — Conditional Branching

Step 1 tests for time of day and day of week. Between 08:00 (8:00 a.m.) and 17:00 (5:00 p.m.) every day, Steps 2 through 6 are processed. Steps 2 through 6, which provide normal business-hours call treatment, are the same as Vector 2. After business hours, between 17:00 and 08:00 every day, vector processing branches to Step 8, which plays an announcement and disconnects the call. This announcement would probably ask callers to call back during business hours.

Step 2 tests split 10 for the number of queued calls. The “calls queued” condition for this step is set to one less than the administered queue length for split 10. Consequently, when split 10’s queue is full, vector processing branches to Step 9, which plays an announcement and disconnects the call. This announcement would probably tell callers that their call cannot be taken at this time and ask them to call back in a few minutes.

Step 7, the “stop” command, separates business-hours treatment from after-hours treatment. Without this step, calls that are queued for more than approximately 30 seconds would be disconnected. With Step 7, calls can only reach Step 8 or 9 if the condition specified in Step 1 or 2 is met.

Vector 5

Figure B-7 shows a vector with a repeating delay announcement.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents

ACD: buffalo_____

Vector: sales_____

Step	Actions and Conditions
1	go to step 8 if time of day is all 17:00__ to all 8:00__
2	go to step 9 if calls queued in split 10 > 19 pri low
3	queue to main split 3 priority low
4	wait time 12 seconds hearing ringback
5	announcement 5400
6	wait time 20 seconds hearing music
7	go to step 5 if unconditionally
8	disconnect after announcement 4200
9	disconnect after announcement 4201
10	

Add step

Del step

Find one

Modify

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 “go to step” command, and the wait interval in Step 6 has been increased to 20 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 9 if the condition specified in Step 1 or 2 is met.

The Call Prompting Feature

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 Vectoring description in this appendix for information about VDNs, vectors, and other vector commands. If the PBX has the Call Vectoring or Call Prompting features, the 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 equal” condition to the following vector commands:

- go to step
- go to 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 ten seconds after the announcement stops. Once digit-entry starts, the caller has up to ten seconds to enter each additional digit. If the caller does not enter a digit within ten 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 (*) restarts the digit collection process. The announcement does not play again when the digit collection process is restarted.

See the 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 can also be sent to a voice terminal with display capabilities.

Variable-Length Digit Strings

To accommodate variable-length digit strings, the caller can enter a pound sign (#) after entering one or more digits. For example, the announcement could tell the caller to enter a 5-digit extension number or, for operator assistance, press the zero followed by the pound sign. When the number of digits the caller could enter varies, the “collect digits” command should specify the largest possible number of digits. The “collect digits” command for the previous example should specify five digits.

The pound sign tells the PBX 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 ten 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 PBX 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 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.

The “Go To Step” Command

Call Prompting adds the “if digits equal” condition to the “go to step” command described in the Call Vectoring section of this appendix. Vector processing branches to the specified step in the vector if the digits collected by the last “collect digits” command match the digits specified in the “go to step” command. The “if digits equal” condition can specify as many as 16 digits.

The “go to step” command has the following format:

go to step xx if digits equal xxxxxxxxxxxxxxxxxx

Calls remain in queue or continue to receive the treatment that was established before the “go to step” command. If the digits specified in the “go to 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).

See the Call Vectoring description in this appendix for information about other “go to step” command conditions.

The “Go To Vector” Command

Call Prompting adds the “if digits equal” condition to the “go to vector” command described in the Call Vectoring section of this appendix. Vector processing branches to Step 1 of the specified vector if the digits collected by the last “collect digits” command match the digits specified in the “go to vector” command. The “if digits equal” condition can specify as many as 16 digits.

The “go to vector” command has the following format:

go to vector xxx if digits equal xxxxxxxxxxxxxxxxxx

Calls remain in queue or continue to receive the treatment that was established before the “go to vector” command. If the digits specified in the “go to 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).

See the Call Vectoring description in this appendix for information about other “go to vector” command conditions.

The “Route To Number” Command

Call Prompting adds the “if digit equals” condition to the “route to number” command described in the Call Vectoring section of this appendix. This command routes the call to the specified destination if the digit specified in the “if digit equals” condition matches the digit collected by the last “collect digits” command.

The “route to number” command has the following format:

route to number xxxxxxxxxxxxxxxx if digit equals x

Vector processing stops if the call routes successfully. That is, if the PBX 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.

The “if digit equals” condition can only be used to route calls based on a single-digit comparison. A combination of “go to step” or “go to vector” and “route to number” commands is required to route calls based on a multidigit comparison.

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 PBX to route a call based on caller-entered digits. The “with coverage” parameter specifies whether features that redirect calls such as Call Coverage and Call Forwarding apply to the routed call or not. For an internal extension, the call redirects if the “with coverage” parameter is set to y (yes) and coverage/forwarding is assigned and applies. Coverage/forwarding is ignored 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 PBX or the “with coverage” parameter is set to no, vector processing stops if the call routes successfully, that is, if the PBX 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.

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 9 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

Figure B-8 shows a vector that routes incoming calls to the desired destination without attendant assistance.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents		Add step Del step Find one Modify
ACD: buffalo_____		
Vector: sales_____		
Step	Actions and Conditions	

1	wait time _0 seconds hearing ringback
2	collect _5 digits after announcement _400
3	route to digits with coverage (y/n) yes
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 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

Figure B-9 shows a vector that gives callers the option of leaving a message or waiting to talk to a company representative.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents		Add step Del step Find one Modify
ACD: buffalo_____ Vector: sales_____		
Step	Actions and Conditions	
1	go to step 9 if calls queued in split 10 > 19 pri low	
2	queue to main split 10 priority low	
3	wait time 10 seconds hearing ringback	
4	collect 1 digits after announcement 4000	
5	go to step 9 if digits equal 1	
6	wait time 10 seconds hearing music	
7	announcement 5400	
8	go to 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 one less than 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 low priority, and Step 3 provides caller feedback if an agent is not immediately available. If a call remains in queue for ten 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.

The Adjunct/Switch Application Interface (ASAI) Feature

The 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 ASAI feature enables the adjunct/host to initiate, receive, and control calls or stations on behalf of ACD agents or other PBX users.

ASAI Applications

The following are a few of the many ASAI applications.

- **Data Screen Delivery**
The PBX can pass network information such as Automatic Number Identification (ANI) and Dialed Number Identification Service (DNIS) and PBX 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 screen.
- **Data Screen Transfer**
The PBX can notify an adjunct/host when a voice call is transferred. This enables the adjunct/host to transfer the corresponding data screen.
- **Adjunct Routing**
If the PBX has the Call Vectoring feature, a vector can be set up to send network or PBX information to an adjunct/host and request call-routing information from the adjunct/host (see the sample ASAI vector presented later in this description). The adjunct/host responds with an internal or external number.
- **Direct Agent Calling**
The adjunct/host can route or transfer an incoming or outgoing call to a specific agent, and CMS tracks the call as an ACD call.
- **Supervisor Assist**
The adjunct/host can initiate a call (tell the PBX to place a call) to a supervisor on behalf of an agent. CMS tracks the call as a supervisor assist call.

- Voice Processor Integration

The PBX 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 screen and used the data 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 PBX 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 ASAI Vector

Figure B-10 shows an example of a vector that sends information to an adjunct/host and requests call-routing information.

09/30/91	03:30 PM	Call Management System	Window 1 of 1
ACD Administration: Vector Contents			
ACD: buffalo_____			Add step Del step Find one Modify
Vector: sales_____			
Step	Actions and Conditions		
1	wait time <u>0</u> seconds hearing <u>ringback</u>		
2	collect <u>5</u> digits after announcement <u>2500</u>		
3	adjunct routing link extension <u>3500</u>		
4	wait time <u>10</u> seconds hearing <u>ringback</u>		
5	route to number <u>5400</u>		
6			

Figure B-10. 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 and requests call-routing information. The adjunct/host uses this information (and possibly other information such as agent availability) to choose the appropriate destination and then sends the selected destination to the PBX.

The wait time in Step 4 specifies the amount of time the PBX waits for a routing response from the adjunct/host. If the adjunct/host responds within ten seconds, vector processing ends and the PBX delivers the call to the adjunct/host-selected destination. If the adjunct/host does not respond within ten 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 ten seconds. This backup destination might be a VDN associated with a vector that provides the appropriate call treatment.

The Look-Ahead Interflow Feature

The Look-Ahead Interflow feature enables ACD calls to be intelligently interflowed (redirected) from one PBX to another. The key word here is intelligently. Two PBXs 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 PBX 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 only be based on conditions at the sending PBX (the PBX the call is currently at). 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 PBX) and to accept or reject the call (at the receiving PBX) 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 PBX queries the receiving PBX 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 PBX. 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 PBX. The destination of the “route to number” command is the private-network address of the receiving PBX.

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 balance the call load between two offices.

Sending Vector

Figure B-11 shows a Look-Ahead Interflow sending vector.

09/30/91	03:30 PM	Call Management System	Window 1 of 1
ACD Administration: Vector Contents			
ACD: buffalo_____			Add step Del step Find one Modify
Vector: sales_____			
Step	Actions and Conditions		
1	wait time 0 seconds hearing ringback		
2	queue to main split 4 priority low		
3	go to step 5 if oldest call waiting in split 4 < 30		
4	route to number 9~p5551234		
5	wait time 10 seconds hearing ringback		
6	announcement 5400		
7	wait time 0 seconds hearing music		
8			

Figure B-11. Look-Ahead Interflow Sending Vector

Steps 1 and 2 provide caller feedback (ringing) and queue calls to split 4 at low 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.

Receiving Vector

Figure B-12 shows a Look-Ahead Interflow receiving vector.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents

ACD: buffalo

Vector: sales

Add step

Del step

Find one

Modify

Step	Actions and Conditions
1	go to step 9 if staffed agents in split 2 < 1
2	go to step 9 if oldest call waiting in split 2 > 5
3	go to step 9 if calls queued in split 2 > 19 pri low
4	queue to main split 2 priority medium
5	wait time 12 seconds hearing ringback
6	announcement 4200
7	wait time 20 seconds hearing music
8	go to step 6 if unconditionally
9	busy
10	

Figure B-12. 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 five seconds, or if more than 19 calls are in queue. The "calls queued" condition in Step 3 is set to one less than the administered queue length for split 10. Consequently, when split 10'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 medium priority. Step 5 delays vector processing for 12 seconds while callers hear ringing. 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 five seconds, or if the more than 19 calls are in queue (the conditions specified in Steps 1 through 3).

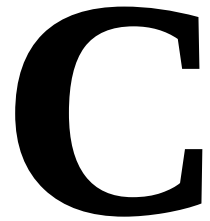
CMS Reporting for the Look-Ahead Interflow Feature

CMS collects and reports information about agents, splits, VDNs, vectors, and trunks. The effect the Look-Ahead Interflow feature has on this information is described in Chapters 4 and 5 and in Appendix A of this manual. The CMS database items **LOOKATTEMPTS** and **LOOKFLOCALLS** collect information about the Look-Ahead Interflow feature.

LOOKATTEMPTS collects information about Look-Ahead Interflow attempts. That is, interflow requests that are accepted by the receiving PBX, interflow requests that are rejected by the receiving PBX, and unsuccessful routing attempts (a “route to number” command that fails due to resource failure, for example, no trunk available).

LOOKFLOCALLS collects information about Look-Ahead Interflow calls that route successfully.

Call Vectoring and Related System 85/Generic 2 Features



How CMS Supports Call Vectoring and Related Features

This appendix gives an overview of the Call Vectoring, Look-Ahead Interflow, and CallVisor™ ASAI Gateway Interface (hereafter called ASAI Gateway Interface) features on the DEFINITY Communications System Generic 2 and System 85 and presents examples of vectors that can be administered using the Vectoring feature of Release 3.0 Call Management System (CMS).

⇒ NOTE:

Release 3.0 CMS does not support the Expert Agent Selection feature on DEFINITY Generic 2.2. If Release 3.0 CMS is used with a Generic 2.2 that has the Expert Agent Selection feature, CMS should **not** be used to administer vectors that reference agent skills.

The Vectoring feature of CMS enables CMS to work with the Call Vectoring, Look-Ahead Interflow, and ASAI Gateway Interface features on the Generic 2 (Call Vectoring and Look-Ahead Interflow are also available on the Release 2 Version 4 System 85).

With the Vectoring feature of the CMS, you can:

- Administer vectors and other aspects of the Call Vectoring, Look-Ahead Interflow, and ASAI Gateway Interface features on the System 85/Generic 2.

- Generate reports about vectors and Vector Directory Numbers (VDNs).

The Vectoring feature of CMS is not part of the standard CMS software; it must be purchased separately. Like the Vectoring feature on CMS, the Call Vectoring, Look-Ahead Interflow, and ASAI Gateway Interface features are not standard System 85/Generic 2 features; these features must be purchased separately.

To use the Vectoring feature on CMS, the Call Vectoring feature **must** be administered on the PBX (System 85/Generic 2). The Look-Ahead Interflow, and ASAI Gateway Interface features use vectors and, therefore, Call Vectoring must be administered on the PBX to use these features. However, the Look-Ahead Interflow, and ASAI Gateway Interface features are **not** required to use the Vectoring feature of CMS.

For more information about the Call Vectoring, Look-Ahead Interflow, and ASAI Gateway Interface features, refer to *DEFINITY Communications System Generic 2 and System 85 Feature Descriptions* (555-104-301).

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, giving caller feedback (such as ringing or music) or checking the status of backup splits 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 CMS reports can be used to track vector-related call processing.

A vector can be created in CMS using the ACD Administration: Vector Contents window (see Chapter 9). As shown in Figure C-1, a vector may have up to 15 commands administered as vector steps.

09/30/91	03:30 PM	Call Management System	Window 1 of 1																																
ACD Administration: Vector Contents Add step Del step Find one Modify <table style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 20%; text-align: left;">Step</th><th style="text-align: left;">Actions and Conditions</th></tr></thead><tbody><tr><td>1</td><td>go to step <u>8</u> if time of day is all <u>17:00</u> to all <u>08:00</u></td></tr><tr><td>2</td><td>queue to main split <u>3</u> priority <u>low</u></td></tr><tr><td>3</td><td>wait time <u>12</u> seconds hearing <u>ringback</u></td></tr><tr><td>4</td><td>announcement <u>54</u></td></tr><tr><td>5</td><td>wait time <u>10</u> seconds hearing <u>music</u></td></tr><tr><td>6</td><td>check backup split <u>5</u> priority <u>low</u> if available agents <u>></u> <u>0</u></td></tr><tr><td>7</td><td>stop</td></tr><tr><td>8</td><td>disconnect after announcement <u>23</u></td></tr><tr><td>9</td><td></td></tr><tr><td>10</td><td></td></tr><tr><td>11</td><td></td></tr><tr><td>12</td><td></td></tr><tr><td>13</td><td></td></tr><tr><td>14</td><td></td></tr><tr><td>15</td><td></td></tr></tbody></table>				Step	Actions and Conditions	1	go to step <u>8</u> if time of day is all <u>17:00</u> to all <u>08:00</u>	2	queue to main split <u>3</u> priority <u>low</u>	3	wait time <u>12</u> seconds hearing <u>ringback</u>	4	announcement <u>54</u>	5	wait time <u>10</u> seconds hearing <u>music</u>	6	check backup split <u>5</u> priority <u>low</u> if available agents <u>></u> <u>0</u>	7	stop	8	disconnect after announcement <u>23</u>	9		10		11		12		13		14		15	
Step	Actions and Conditions																																		
1	go to step <u>8</u> if time of day is all <u>17:00</u> to all <u>08:00</u>																																		
2	queue to main split <u>3</u> priority <u>low</u>																																		
3	wait time <u>12</u> seconds hearing <u>ringback</u>																																		
4	announcement <u>54</u>																																		
5	wait time <u>10</u> seconds hearing <u>music</u>																																		
6	check backup split <u>5</u> priority <u>low</u> if available agents <u>></u> <u>0</u>																																		
7	stop																																		
8	disconnect after announcement <u>23</u>																																		
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10																																			
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Figure C-1. CMS Vector Contents Window With Sample Vector

You can also create a vector with one of the following PBX 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 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 final digits of a DID number are administered as a VDN. The Central Office (CO) passes these digits to the PBX, which either immediately processes the digits or adds or deletes digits as needed. The PBX then connects the trunk to the vector assigned to the VDN. Thus, for DID trunk groups, the final digits dialed by the caller **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 determines a call's origin and assigns Dialed Number Identification Service (DNIS) digits to the call. The CO passes the DNIS digits to the PBX over a DID trunk group. These same digits are assigned in the PBX as a VDN. When the PBX 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 PBX.

- **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 PBX. The PBX 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 voice terminal connected to the PBX. 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 PBX.

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.

Without Call Vectoring, automatic-in trunk groups and call-treatment parameters are assigned to a particular ACD split. ACD calls go directly to a split queue and are given the treatment assigned to that split. Call treatment is based on the split and parameters assigned to the split.

With Call Vectoring, 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 that specify the order in which and the conditions under which treatments are given. Call treatment is based on the vector and treatments specified in the vector. See Figure C-2.

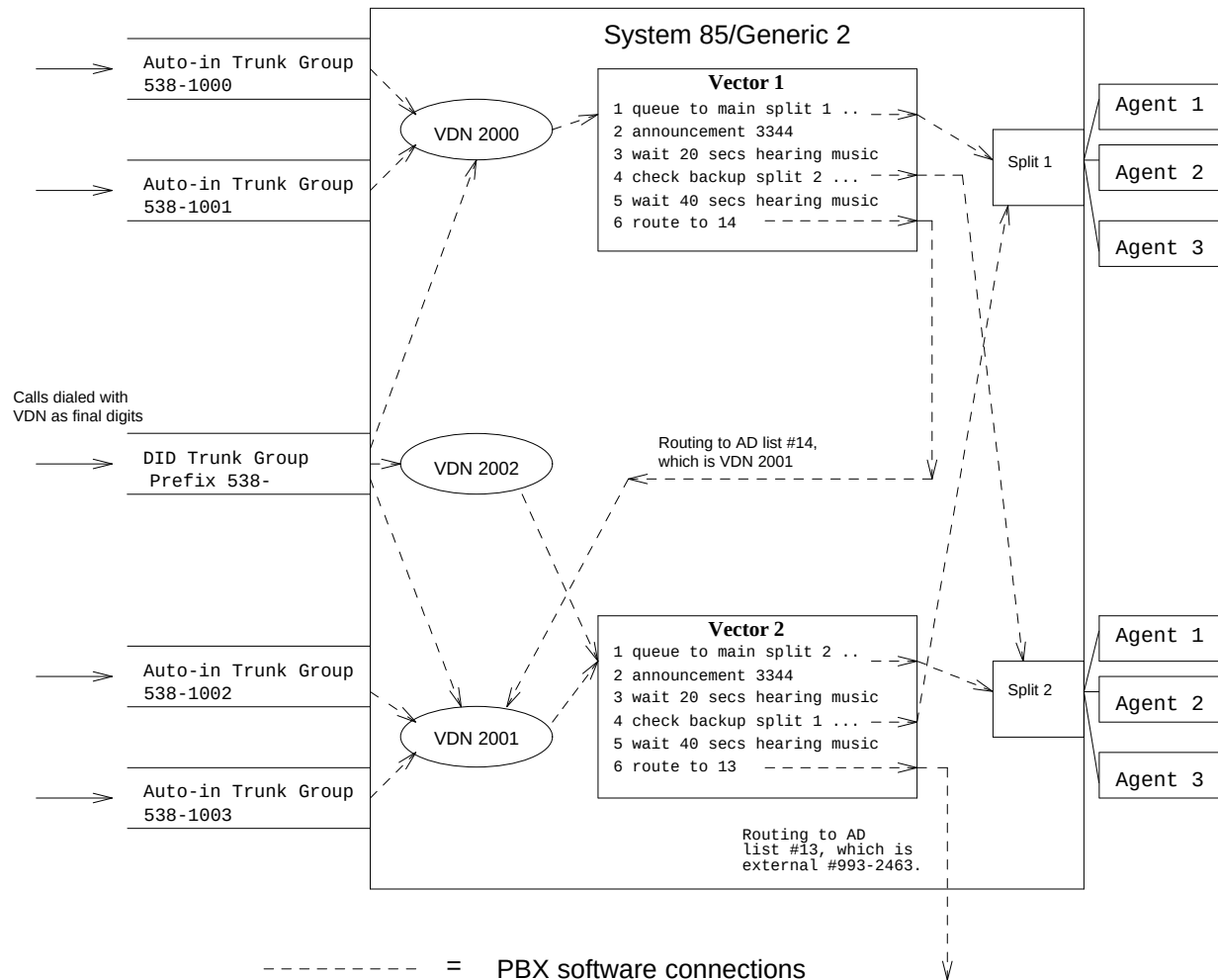


Figure C-2. System 85/Generic 2 Configuration for ACD With Call Vectoring

Increased Flexibility of Call Handling

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.

Without Call Vectoring, ACD splits can be assigned inflow and outflow levels that are based on the number of calls in queue. These assigned levels determine whether calls intraflow (redirect) from one local split to another or not. In addition to number of calls in queue, with Call Vectoring the decision to intraflow calls can be based on oldest call wait time, number of staffed or available agents, or any combination of these conditions.

Answer Supervision in a Vectoring Environment

Answer supervision is a signal, sent from the PBX to the serving Central Office (CO), that tells the CO to begin recording toll charges for a call. However, while a call waits in queue, AT&T ACD software can delay sending answer supervision so that the ACD owner/operator or caller can avoid excess toll charges. The caller hears CO ringback until answer supervision is sent.

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 before the caller hears a recorded announcement or music. Answer supervision is also sent when a call is disconnected.*

The type of trunk from the CO also influences the triggering of answer supervision. For an auto-in trunk, a wait step with silence triggers answer supervision for the call. On the other hand, a wait step with silence on a dial-repeating trunk 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.

Vector Commands

Vector commands specify the treatment for specific incoming calls. Note that the following commands are available in CMS only if the Call Vectoring feature has been purchased for both the PBX and CMS.

- queue to main split
- wait
- announcement
- check backup split
- go to step
- go to vector
- stop
- busy
- disconnect
- route to number

The “Queue to Main Split” Command

This command queues calls to the specified split at the specified priority level. The “queue to main split” command has the following format:

queue to main split xx priority xxxxx

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:

* Except with ISDN trunks.

- 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 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.

⇒ NOTE:

Calls will queue to a split even if the split is unstaffed. To prevent calls from queuing to an unstaffed split, a vector can be set up to provide alternate treatment when the split is unstaffed.

The “Wait” Command

This command delays vector processing for a specific amount of time while callers hear silence, ringing (also called ringback), or music. The “wait” command has the following format:

wait time xx seconds hearing xxxxx

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	Caller hears silence.	Caller hears silence.
	Automatic-in	Caller hears ringback from the Central Office (CO).	Caller hears silence.
Ringback	DID	Caller hears PBX ringback.	Caller hears ringback.
	Automatic-in	Caller hears CO ringback.	Caller hears ringback.
Music	DID	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 CMS collects for a vector. When the specified wait interval expires, the PBX sends a message to CMS indicating that processing of vector steps has finished. If the specified wait interval is short (for example, two seconds), the PBX could send CMS the message indicating that processing has finished before the call is answered.

The “Announcement” Command

This command plays the specified announcement. The “announcement” command has the following format:

announcement xxx

For System 85 and DEFINITY Generic 2.1, the range of announcement numbers is 16 through 99. For DEFINITY Generic 2.2, the range is 1 through 255.

If the call is in a split 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 “Check Backup Split” Command

While a call is queued to a main split, this command checks the status of a backup split for possible queuing of a call. The status of the backup split 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 a vector has two or more “check backup split” commands that specify the same backup split but different conditions, all of the specified conditions must be met before a call will queue to the backup split.

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. If the condition is not met, the backup split is checked every two seconds until:

- The specified condition is met, or
- The call is answered at the main split, 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 PBX disconnects the call.

The “check backup split” command has the following format:

- check backup split xx priority xxxx if available agents > xxxx
Check the specified backup split and queue the call if the number of available agents is greater than (>) the number specified.
- check backup split xx priority xxxx if staffed agents > xxxx
Check the specified backup split and queue the call if the number of staffed agents is greater than the number specified. 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 xx priority xxxx if calls queued < xxxx
Check the specified backup split (for calls queued at the specified priority level or higher) and queue the call if the number of queued calls is less than (<) the number specified.
- check backup split xx priority xxxx if oldest call waiting < xxxx
Check the specified backup split (for calls queued at the specified priority level or higher) and queue the call if the oldest call in queue has waited less than the number of seconds specified.

⇒ NOTE:

Calls will queue to a split even if it is unstaffed. If an unstaffed split 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, no matter what wait time is specified.

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 and, if the specified condition is met, to queue calls to the backup split. When checking the status of the backup split, only those calls queued at the specified priority level or higher are considered.

The “Go To 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 “go to 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 “go to step” command. If the test fails, vector processing continues with the next step in the vector (branching does not occur).

The “go to step” command has the following format:

- go to 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 “go to step” command is processed 1000 times.

- go to step xx if available agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified step if the number of available agents in the specified split is less than (or greater than) the number specified.

- go to step xx if staffed agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified step if the number of agents logged into the specified split is less than (or greater than) the number specified. This command is often placed before a “queue to main split” command to test whether a split is staffed or not before queuing calls to the split.

- go to step xx if calls queued in split xx is $\leq$ (or $>$) xxxx priority xxxx

Vector processing branches to the specified step if the number of calls queued to the specified split (at the specified priority level or higher) is less than (or greater than) the number specified.

- go to step xx if oldest call waiting in split xx is $\leq$ (or $>$) xxxx priority xxxx

Vector processing branches to the specified step if the time (in seconds) that the oldest call has waited in the specified split queue (at the specified priority level or higher) is less than (or greater than) the time specified.

⇒ **NOTE:**

A “go to 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 “go to step” command should specify low priority to insure that all calls in the specified queue are considered.

- go to step xx if time of day is xxx xx:xx xx to xxx xx:xxxx 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 of days in the week, you may enter **all** in the blanks. For example, you may want the “go to step” command to branch to the alternate call treatment everyday after 5:00 p.m.

⇒ **NOTE:**

The time may be specified as am/pm or in 24-hour notation (also known as “military” time). The equivalent of 4:30 a.m. in 24-hour notation is 04:30. The equivalent of 4:30 p.m. in 24-hour notation is 16:30.

The “Go To Vector” Command

The “go to vector” command is available beginning with DEFINITY Generic 2.2. 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 “go to 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 “go to 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 “go to 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 “go to vector” command has the following format:

- go to vector xx if unconditionally

Vector processing always branches to the specified vector.

- go to vector xx if available agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified vector if the number of available agents in the specified split is less than (or greater than) the number specified.

- go to vector xx if staffed agents in split xx is $\leq$ (or $>$) xxxx

Vector processing branches to the specified vector if the number of agents logged into the specified split is less than (or greater than) the number specified.

- go to vector xx if calls queued in split xx is $\leq$ (or $>$) xxxx priority xxxx

Vector processing branches to the specified vector if the number of calls queued to the specified split (at the specified priority level or higher) is less than (or greater than) the number specified.

- go to vector xx if oldest call waiting in split xx is $\leq$ (or $>$) xxxx priority xxxx

Vector processing branches to the specified vector if the time (in seconds) that the oldest call has waited in the specified split queue (at the specified priority level or higher) is less than (or greater than) the time specified.

⇒ NOTE:

A “go to 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 “go to vector” command should specify low priority to insure that all calls in the specified queue are considered.

- go to vector xx if time of day is xxx xx:xx xx to xxx xx:xxxx 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 of days in the week, you may enter **all** in the blanks. For example, you may want the “go to vector” command to branch to the alternate call treatment everyday after 5:00 p.m.

⇒ NOTE:

The time may be specified as am/pm or in 24-hour notation (also known as “military” time). The equivalent of 4:30 a.m. in 24-hour notation is 04:30. The equivalent of 4:30 p.m. in 24-hour notation is 16:30.

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 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 “go to step” command from the rest of the vector. See Vector 4 in the *Sample Vectors* section of this appendix.

All CMS vector tables stop receiving data when a “stop” command is processed. However, split 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. Also, the number of answered and abandoned calls can differ in the vector and VDN reports.

The “Busy” Command

This command sends a busy signal and ends vector processing. The PBX 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 PBX disconnects the call and, for non-ISDN calls, sends answer supervision.

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 PBX. 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 ringing. 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 PBX 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 PBX sends answer supervision before disconnecting a call. For ISDN trunks, answer supervision is not sent.

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 xx

The destination specified in the “route to number” command (the x’s in the command shown above) is an Abbreviated Dial (AD) group list item. For System 85 and Generic 2.1, the range of list item numbers for the Call Vectoring group list is 1 through 95. Beginning with Generic 2.2, 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, when the group list is administered, 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 PBX and a trunk or Originating Register is not available, or the destination is unknown.

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 routed to a destination other than another VDN, CMS stops tracking that call when it connects to the number.

If a call is queued to a split when a “route to number” command is processed, the call is removed from the split queue if the routing succeeds.

How Vectors Are Processed

The Call Vectoring software 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 “go to step” and “go to vector” commands are exceptions. These commands provide conditional or unconditional branching, which directs vector processing to a step other than the next sequential step.

With conditional branching, the 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 vector specified in the command. With unconditional branching, the command does not specify a condition and, therefore, branching always occurs.

The “go to 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.

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 9 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

The simplest vectors have only one step. Figure C-3 shows a vector that plays an announcement and then disconnects calls.

09/30/91 03:30 PM Call Management System Window 1 of 1	
ACD Administration: Vector Contents	
ACD: buffalo_____	
Vector: sales_____	
Step	Actions and Conditions
1	<u>disconnect</u> after announcement <u>42</u>
2	

Add step
Del step
Find one
Modify

Figure C-3. Vector 1 — Information Announcement

Vector 2

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.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents		Add step Del step Find one Modify
ACD: buffalo_____		
Vector: sales_____		
Step	Actions and Conditions	
1	queue to main split 3 priority low	
2	wait time 12 seconds 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 low priority. Step 2 delays vector processing for 12 seconds while callers hear ringing. Step 2 serves two purposes. First, it provides the same feedback (ringing) 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 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

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 check the status of one or more backup splits when callers have to wait too long for service from the main split.

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.

09/30/91 03:30 PM Call Management System		Window 1 of 1
ACD Administration: Vector Contents		
ACD: buffalo_____		Add step Del step Find one Modify
Vector: sales_____		
Step	Actions and Conditions	
1	queue to main split 3 priority low	
2	wait time 12 seconds hearing ringback	
3	announcement 54	
4	wait time 10 seconds hearing music	
5	check backup split 5 priority low if available agents ≥ 0	
6		

Figure C-5. Vector 3 — Check Backup Split

Vector 3 adds a “wait with music” command and a “check backup split” command to Vector 2 (Steps 1 through 3). Step 4 delays vector processing for ten seconds while callers hear music. Music is more appropriate than ringback for this “wait” command because ringing may confuse a caller after hearing an announcement.

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 low 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

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 C-6 shows a vector that has a conditional branch.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents		Add step Del step Find one Modify
ACD: buffalo_____ Vector: sales_____		
Step	Actions and Conditions	
1	go to step 8 if time of day is all 17:00 to all 08:00	
2	queue to main split 3 priority low	
3	wait time 12 seconds hearing ringback	
4	announcement 54	
5	wait time 10 seconds hearing music	
6	check backup split 5 priority low if available agents ≥ 0	
7	stop	
8	disconnect after announcement 23	
9		

Figure C-6. Vector 4 — Conditional Branching

Vector 4 adds a “go to step” command (Step 1), a “stop” command (Step 7), and a “disconnect with announcement” command (Step 8) to Vector 3 (Steps 2 through 6). Step 1 tests for time of day and day of week. Between 08:00 (8:00 a.m.) and 17:00 (5:00 p.m.) every day, the test fails and Steps 2 through 6, which provide the normal business-hours call treatment, are processed. Between 17:00 and 08:00 every day, the test succeeds and vector processing branches to Step 8. Step 8 plays an announcement and disconnects the call.

Step 7, the “stop” command, separates business-hours treatment from after-hours treatment. Without this step, although unlikely, calls could reach Step 8 during business hours. With Step 7, calls can only reach Step 8 by way of the “go to step” command (Step 1).

Vector 5

Figure C-7 shows a vector with a repeating delay announcement.

09/30/91 03:30 PM Call Management System Window 1 of 1	
ACD Administration: Vector Contents	
ACD: buffalo_____	Add step Del step Find one Modify
Vector: sales_____	
Step	Actions and Conditions
1	queue to main split 3 priority low
2	wait time 12 seconds hearing ringback
3	announcement 54
4	wait time 20 seconds hearing music
5	go to step 3 if unconditionally
6	

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 20 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 ASAI Gateway Interface Feature

The Adjunct/Switch Application Interface (ASAI) Gateway Interface feature (called the Integrated Telemarketing Gateway Interface for DEFINITY Generic 2.1) 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. The ASAI Gateway Interface is a hardware and software package that provides a two-way gateway between the PBX and call-center software running on a host computer. This gateway enables the call-center software to monitor and control certain incoming, outgoing, and internal calls. The gateway software runs on an AT&T 3B2 computer.

A special ISDN—PRI link is required between the PBX and the 3B2. The PBX and 3B2 communicate by exchanging messages over the D (signaling) channel of the ISDN—PRI link. The gateway software acts as an interpreter between the PBX and the host computer; It translates messages from the PBX into a form the host computer can understand and vice versa.

Figure C-8 shows an example of an ASAI Gateway Interface configuration. The ASAI Gateway Interface is called a two-way gateway because information travels through the gateway in two directions; from the PBX to the call-center software and from the call-center software to the PBX.

Call Management Services

The ASAI Gateway Interface provides incoming call management, outgoing call management, and transfer/conference management.

Incoming Call Management

Incoming call management enables the call-center software to monitor and control certain incoming calls. The PBX sends call notification and other information about a call through the gateway to the call-center software.

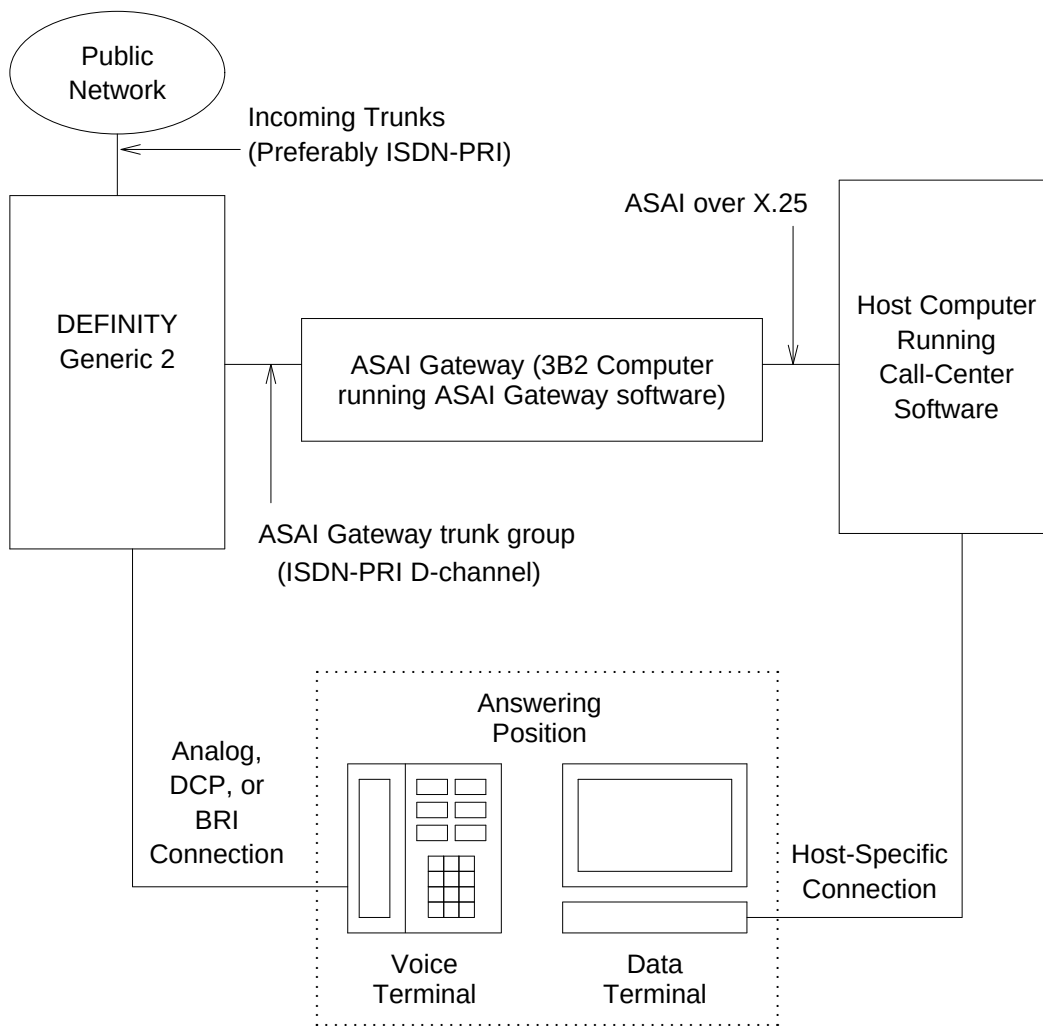


Figure C-8. ASAI Gateway Interface Configuration

Depending on the type of incoming trunks and the available network services, the PBX can receive Automatic Number Identification (ANI) and Dialed Number Identification Service (DNIS) from the public network and send it through the gateway to the call-center software. ANI is the calling party's 10-digit billing number. DNIS is the dialed number, typically the VDN associated with the call. To receive ANI and DNIS, the incoming trunks (from the AT&T network) must be ISDN—PRI. Furthermore, *Megacom*® 800 service and INFO-2 service are required to receive ANI.

The call-center software uses this information to determine how to handle the call and to retrieve information from a customer database. For example, calls from foreign language speaking customers can be sent to a multilingual agent or split. Then, the call-center software sends call-handling information through the gateway back to the PBX.

The call-handling information specifies one of the following destinations for the incoming call:

- A VDN (Vector Directory Number). The vector associated with a VDN can be set up to process calls in many different ways, for example, calls can be queued to a local ACD split or routed to an internal or external destination.
- A specific ACD agent. Even though this type of call does not go through the ACD software, the call can be tagged as an ACD call and tracked by CMS.
- An internal extension number.
- A private-network number.
- A public-network number.

Information retrieved from a customer database, such as a customer account or catalog order form, can be delivered to the same destination as the incoming call. The database information is sent to the agent's data terminal and the incoming call is sent to the agent's voice terminal. The call-center software can coordinate the timing of these events so that the database information arrives at the same time as (or before) the voice call.

For incoming calls, the PBX uses a vector to send call information through the gateway to the call-center software and, depending on the call-handling information received from the call-center software, may use another vector to deliver the incoming call to an answering position.

Sample ASAI Gateway Interface Vector

Figure C-9 shows an example of a vector that routes incoming call information to the gateway. In general, this vector should be as short as possible and commands that return answer supervision (for example, "wait with music" and "announcement" commands) should be avoided.

09/30/91	03:30 PM	Call Management System	Window 1 of 1										
ACD Administration: Vector Contents ACD: buffalo_____ Vector: sales_____ <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 15%;">Step</th> <th style="text-align: left;">Actions and Conditions</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><u>route</u> to number <u>20</u></td> </tr> <tr> <td>2</td> <td><u>route</u> to number <u>25</u></td> </tr> <tr> <td>3</td> <td><u>disconnect</u> after announcement <u>23</u></td> </tr> <tr> <td>4</td> <td></td> </tr> </tbody> </table> Add step Del step Find one Modify				Step	Actions and Conditions	1	<u>route</u> to number <u>20</u>	2	<u>route</u> to number <u>25</u>	3	<u>disconnect</u> after announcement <u>23</u>	4	
Step	Actions and Conditions												
1	<u>route</u> to number <u>20</u>												
2	<u>route</u> to number <u>25</u>												
3	<u>disconnect</u> after announcement <u>23</u>												
4													

Figure C-9. ASAI Gateway Interface Vector

Step 1 routes incoming call information to the gateway. (The number 20 is the Abbreviated Dialing list item that stores the digits used to access a trunk to the gateway.) If Step 1 fails, vector processing moves on to Step 2.

Step 2 routes the incoming call to a VDN (stored in AD list item 25) associated with a vector that queues calls to a local ACD split or routes calls to an internal or external destination. Steps 2 provides alternate call treatment if the gateway or the gateway trunk group cannot be accessed. The vector associated with Step 2 should be set up to handle any call scenario. However, if Step 2 fails, Step 3 plays an announcement and disconnects the call.

Outgoing Call Management

Outgoing call management enables the call-center software to monitor and control certain outgoing calls. Instructions for placing a call are sent from the call-center software through the gateway to the PBX. Information about the call's progress is sent from the PBX through the gateway to the call-center software. Outgoing calls can be initiated by an agent or by the call-center software. For all types of outgoing calls, the call-center software can deliver database (called party) information to the agent who handles the call and the PBX can identify the agent to the call-center software.

Transfer/Conference Management

Transfer/conference management enables the call-center software to monitor an incoming or outgoing call and, if requested, transfer the call and the associated database information (the information displayed on an agent's data-terminal screen) from one answering position to another. An answering position can also conference with another answering position with or without caller (or called party) involvement.

The Look-Ahead Interflow Feature

The Look-Ahead Interflow feature enables ACD calls to be intelligently interflowed (redirected) from one PBX to another. The key word here is intelligently. Two PBXs 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 PBX 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 only be based on conditions at the sending PBX (the PBX the call is currently at). 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 PBX) and to accept or reject the call (at the receiving PBX) 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 PBX queries the receiving PBX 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 PBX. 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 PBX. The destination of the “route to number” command is the private-network address of the receiving PBX.

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 balance the call load between two offices.

Sending Vector

Figure C-10 shows a Look-Ahead Interflow sending vector.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents		Add step Del step Find one Modify
ACD: buffalo_____		
Vector: sales_____		
Step	Actions and Conditions	
1	wait time 0 seconds hearing ringback	
2	queue to main split 4 priority low	
3	go to step 5 if oldest call waiting in split 4 < 30	
4	route to number 10	
5	wait time 10 seconds hearing ringback	
6	announcement 54	
7	wait time 0 seconds hearing music	
8		

Figure C-10. Look-Ahead Interflow Sending Vector

Steps 1 and 2 provide caller feedback (ringing) and queue calls to split 4 at low priority. The 0-second wait interval is available beginning with Generic 2.2.

Step 3 tests split 4 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 PBX.

Receiving Vector

Figure C-11 shows a Look-Ahead Interflow receiving vector.

09/30/91	03:30 PM	Call Management System	Window 1 of 1

ACD Administration: Vector Contents

ACD: los_angl_____

Vector: sales_____

Add step
Del step
Find one
Modify

Step	Actions and Conditions
1	go to step 8 if staffed agents in split 2 < 1
2	go to step 8 if oldest call waiting in split 2 > 5 priority low
3	queue to main split 2 priority medium
4	wait time 12 seconds hearing ringback
5	announcement 42
6	wait time 20 seconds hearing music
7	go to step 5 if unconditionally
8	busy
9	

Figure C-11. 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 five 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 medium priority.

Step 4 delays vector processing for 12 seconds while callers hear ringing. 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 five seconds (the conditions specified in Steps 1 and 2).

CMS Reporting for the Look-Ahead Interflow Feature

CMS collects and reports information about agents, splits, VDNs, vectors, and trunks. The effect the Look-Ahead Interflow feature has on this information is described in Chapters 4 and 5 and in Appendix A of this manual. The CMS database items **LOOKATTEMPTS** and **LOOKFLOCALLS** collect information about the Look-Ahead Interflow feature.

LOOKATTEMPTS collects information about Look-Ahead Interflow attempts. That is, interflow requests that are accepted by the receiving PBX, interflow requests that are rejected by the receiving PBX, and unsuccessful routing attempts (a "route to number" command that fails due to resource failure, for example, no trunk available).

LOOKFLOCALLS collects information about Look-Ahead Interflow calls that route successfully.

ACD Basics

D

What a Switch Does

A **switch** is an electronic device that processes dialed phone numbers and connects calls to the proper destinations. The telephone company switch in your local area is called a **Central Office (CO)**. A switch at a company or organization that processes internal and external calls is called a **PBX** (Private Branch Exchange). Throughout this appendix, the term switch is used to refer to a company or organization's PBX. The following AT&T switches are used by large companies for call processing:

- DEFINITY Communications System Generic 3i
- DEFINITY Communications System Generic 3r
- DEFINITY Communications System Generic 1
- DEFINITY Communications System Generic 2
- System 85 R2V4 (Release 2 Version 4).

Trunks, Trunk Groups, and Extensions

Incoming calls to a company first pass through the CO and then pass 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 for incoming calls to a switch. 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 outside calls to the proper destinations, are also like private COs for company 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 Dial Processing

Extension numbers may also serve as the final digits of employee phone numbers for incoming calls. That is, the CO may assign only a 2-, 3-, or 4-digit prefix to a trunk group. Then, when a 7-digit employee phone number is dialed, the call is processed as follows:

1. CO processes the prefix of the dialed number, then seizes a trunk in the trunk group that is assigned that prefix.
2. The CO passes the remaining digits of the dialed number to the switch.

* Trunks can carry incoming calls, outgoing calls, or both. However, the Automatic Call Distribution (ACD) feature and the Call Management System are primarily concerned with incoming calls.

3. The switch recognizes the remaining digits as an employee extension number and sends the call to that extension.

This kind of processing is called **Direct Inward Dialing (DID)**. With DID processing, incoming trunks do not connect the CO directly to an employee's phone; instead, the incoming trunks are pooled by the switch, and this pool of trunks is then shared by employee phones.

As an example of DID processing, say that Employee A has the external phone number 538-1000 and the extension number 1000. Employee B has the phone number 538-9999 and the extension number 9999. The steps in completing calls to Employees A and B might be as follows:

1. Employee A's client dials 538-1000.
2. The CO serving Employee A's company identifies the digits 538- (the common prefix for all phone numbers to that company) and seizes Trunk 1 in the trunk group assigned the digits 538.
3. The CO passes the digits 1000 to the switch at Employee A's company.
4. The switch identifies the digits 1000 as Employee A's extension number and sends the call to Employee A's extension.
5. Employee A's phone rings and Employee A answers.
6. Meanwhile, Employee B's client dials 538-9999.
7. The CO identifies the digits 538- and seizes Trunk 2 in the trunk group assigned the digits 538.
8. The CO passes the digits 9999 to the switch.
9. The switch identifies the digits 9999 as Employee B's extension number and sends the call to Employee B's extension.
10. Employee B's phone rings and Employee B answers.

While Employees A and B continue to talk, Trunks 1 and 2 in the 538- trunk group will not accept any more calls, so another call beginning with the digits 538 will seize yet another trunk in the trunk group.

Automatic-In Processing

Besides DID, **automatic-In** processing can also be used. With automatic-in processing, the CO processes all of the digits of an incoming call. The CO then seizes a trunk from the trunk group, but, since processing is complete, the call connects directly to a destination identified in the switch software. That destination can be a phone, a **queue** (in which callers wait to be answered in the order in which their call was received), or special treatment like an announcement, disconnect, or automatic (forced) busy signal.

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 only know 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 illustrates a switch that has an attendant and extensions, and uses both DID and automatic-in call processing.

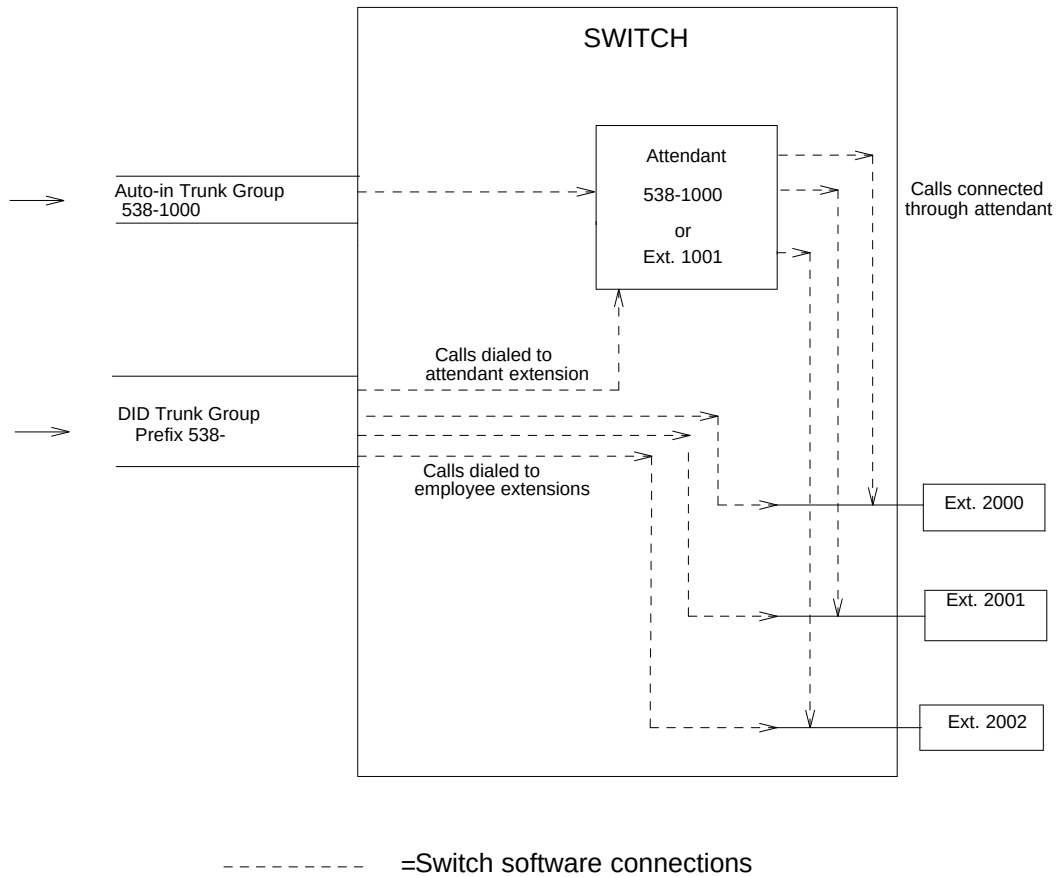


Figure D-1. Typical Call Processing on a Switch — Without an ACD

What the ACD Does

If the company operates a high-volume call-answering center (for example, a catalogue sales center, a reservations center, or a customer service center), certain trunk groups carry large numbers of calls with one or a few specific purposes. A trunk group might carry calls for a 1-800 nationwide reservations number, a local customer service number, or a regional sales number. A group of extensions called a **split** can be established to answer calls that arrive on these high-call-volume trunk groups. An employee who answers split calls is called an **agent**.

Automatic Call Distribution (ACD) is a switch feature that automatically distributes incoming calls to voice terminals in a split. Table D-1 shows maximum split and agent capacities for various AT&T switches.

Table D-1. Maximum Split and Agent Capacities

Maximum Capacity	Switch					
	G1.1	G3i	G3r	S85 R2V4	G2.1	G2.2
ACD Splits	99	99	255	60	60	60
Agents per System	500	500	3000	1024	1024	2048
Agents per Split	200	200	999	1024	1024	1024

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 agents and, therefore, stop trying to get through, the call center will lose revenue. Call center management needs, therefore, to determine how many trunks and agents will minimize costs and maximize the ability of customers to get through. Management can then set up and maintain the ACD accordingly.

Table D-2 shows the documents that describe the ACD feature for various AT&T switches and the tools that are used to administer an ACD (that is, add, change, or remove splits, trunk groups, agents, announcements, etc.).

Table D-2. Switch Documentation and Administration Tools

Switch	Document	Administration Tool
System 85 R2V4	<i>DEFINITY Communications System Generic 2 and System 85 Feature Descriptions</i> (555-104-301)	Maintenance and Administration Panel (MAAP), System Management Terminal (SMT), Visual Maintenance and Administration Panel (VMAAP), Centralized System Management (CSM), DEFINITY Manager II and IV
Generic 2	<i>DEFINITY Communications System Generic 2 and System 85 Feature Descriptions</i> (555-104-301)	DEFINITY Manager II, III, and IV
Generic 1 and Generic 3	<i>DEFINITY Communications System, Generic 1 and Generic 3 Feature Descriptions, Issue 2</i> (555-200-201)	DEFINITY Manager I and IV

**NOTE:**

Some ACD administration can be performed using the CMS.

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.

For Generic 2/System 85, once trunk groups have been initially assigned to splits, CMS can be used to reassign trunk groups to different splits. (See Chapter 9, “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. The ACD software distributes these calls to the agent extensions assigned to the split.

For Generic 3/Generic 1, one 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 illustrates an example of call-processing on a switch with an ACD.

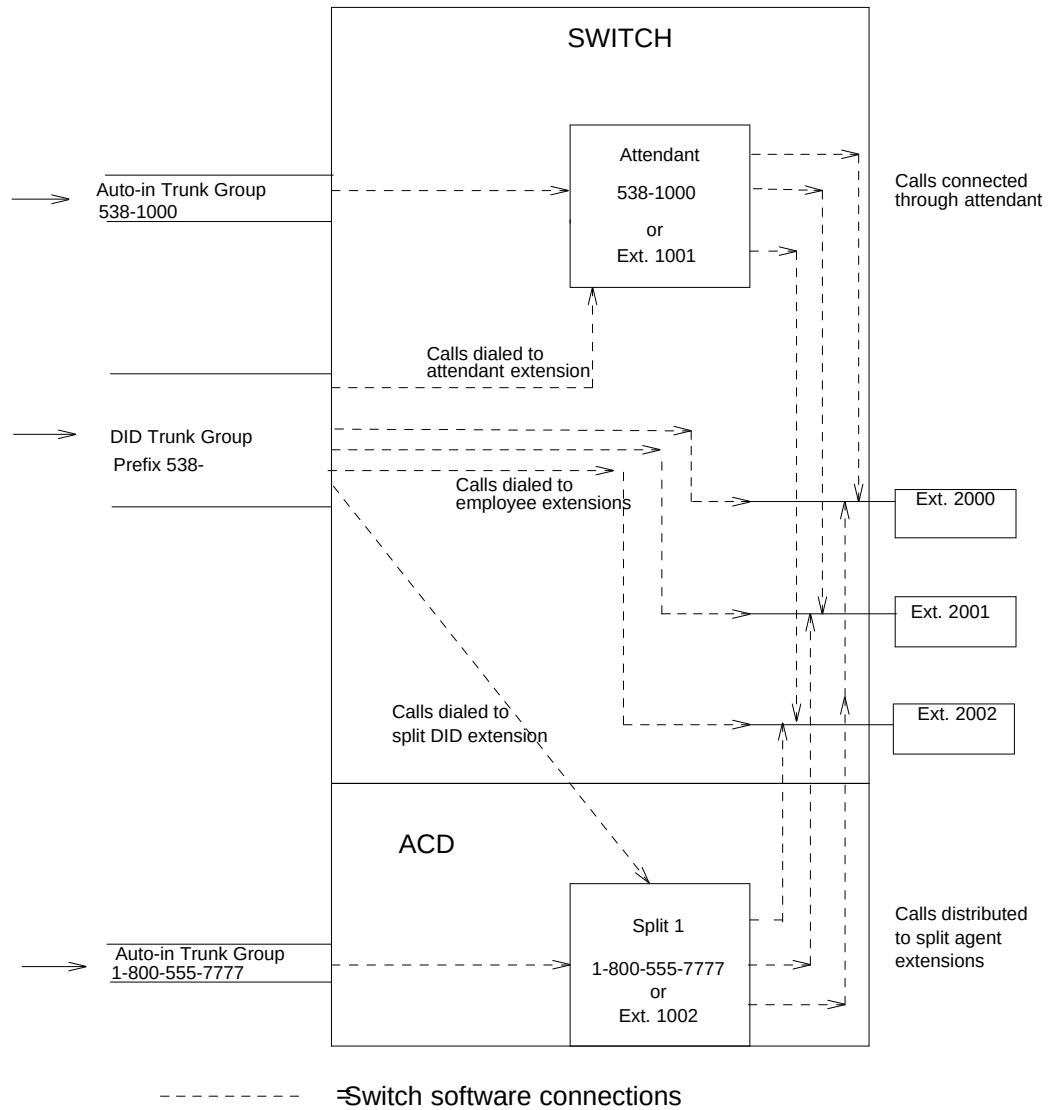


Figure D-2. Call-Processing on a Switch With an ACD

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, as long as agents are available, calls do not wait in 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.) After a call reaches the head of the queue, it connects to the next available extension.

⇒ **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, which collects the bulk of calls to a split. But a split can also have a priority queue, which collects high-priority calls. 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 will resume distributing 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 will be placed in the priority queue if no agents are available. Calls using numbers of nonpriority DID extensions or trunk groups will be placed in the nonpriority queue if no agents are available.

For Generic 3/Generic 1, only internal extensions may be assigned priority queuing. Calls on a split's automatic-in trunk groups or DID extension enter the split's queue on a nonpriority basis only. A split may, however, 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 3/ Generic 1

Queue size is established through switch administration. Calls arriving after the administered queue limit is reached receive a busy signal. However, through switch administration, calls can be redirected to a local or remote destination (see Intraflow and Interflow in this appendix).

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 CMS using the Split Parameters window (see Chapter 9, "ACD Administration").

NOTE:

If the switch and 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 CMS.

Announcements and Other Treatment 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, and/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 tries to persuade the caller to stay on the line.

Announcements are recorded on an announcement device connected to the switch. Announcements and **delay time** are assigned to splits through switch administration. Delay time is the amount of time a call must wait in a split queue before receiving an announcement. If a call connects to an agent before the delay time passes, 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.

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 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.

⇒ 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.

Announcement Queuing for Generic 2/System 85

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 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 for Generic 3/Generic 1

Analog and digital announcement units are available. Queuing for analog 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 digital announcements is quite different. Digital announcements are delivered to a 16-port announcement board, and a call receives an announcement only when it connects to one of the 16 announcement ports. Therefore, all calls wait in a single queue to access a port on the announcement board regardless of the split announcement they are waiting to receive. The queue can hold up to 50 calls and as many as five calls (waiting for the same announcement) can connect to a port simultaneously. The same announcement can be delivered over multiple ports. This means that if all 50 calls in queue are waiting for the same announcement, that announcement could be played simultaneously to all 50 calls. Digital announcements are delivered on demand, so a call that connects to a port receives an announcement immediately and does not have to wait for the announcement to finish and start again.

As an example of digital announcement queuing, say the calls identified by asterisks (*) in the following list are waiting for the first Split 1 announcement, and Port 3 becomes available:

Queued Calls

1. A*
2. B
3. C*
4. D
5. E
6. F*
7. G
8. H
9. I*
10. J*
11. K

Announcement Ports

Busy— Port 1
Busy— Port 2
Busy— Port 3
Busy— Port 4
Busy— Port 5
Busy— Port 6
Busy— Port 7
Busy— Port 8
Busy— Port 9
Busy— Port 10
Busy— Port 11
Busy— Port 12
Busy— Port 13
Busy— Port 14
Busy— Port 15
Busy— Port 16

With Port 3 available, Call A (the first call in queue) and up to four other calls waiting in queue for the Split 1 announcement immediately connect to Port 3, as shown in the following queue:

Queued Calls

1. B
2. D
3. E
4. G
5. H
6. K

Announcement Ports

Busy — Port 1
Busy — Port 2
ACFIJ—Port 3: Split 1 announcement
Busy — Port 4
Busy — Port 5
Busy — Port 6
Busy — Port 7
Busy — Port 8
Busy — Port 9
Busy — Port 10
Busy — Port 11
Busy — Port 12
Busy — Port 13
Busy — Port 14
Busy — Port 15
Busy — Port 16

All calls remaining in queue then move to higher positions in the queue. Notice that the second call in the queue (Call B) moves up to the first position. When this call connects to the next available port, up to four other calls waiting for the same announcement will also connect to that port.

If a Generic 3/Generic 1 announcement queue is full, the system will continue to try every ten 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.

Answer Supervision and Abandoned Calls

Answer Supervision

Answer supervision is a signal sent by the switch to the serving 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 or to an announcement.

Abandoned Calls

An abandoned call is a call that queues to a split, but does not connect to an agent because the caller hangs up. 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 an announcement should persuade the caller to wait until someone answers their 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, the CO delays 2 to 25 seconds (depending on the CO) before sending a disconnect signal to the PBX. 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, Generic 1, and Generic 3.

⇒ NOTE:

If Call Vectoring is active on a Generic 2, System 85 R2V4, or Generic 3, redirection of calls differs significantly from the intraflow/interflow described in this section.

Intraflow and Interflow for 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 should be a QDN, PQDN, local attendant or CAS attendant.

Calls are interflowed outside of 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 when preassigned thresholds are met or unconditionally. 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 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 that will prevent intraflowed calls from entering a 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 should 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. If the interflow destination is a split, calls will always enter the queue, whether the split has an inflow threshold or not.

⇒ NOTE:

Unconditional and threshold intraflow/interflow cannot be used simultaneously for the same split.

Setting Up Intraflow/Interflow for Generic 2/System 85

To set up intraflow/interflow, the appropriate **dial access codes** must be administered on the switch. A voice terminal user dials a dial access code to activate or cancel a switch feature. For quick dialing, a dial access code can be assigned to a button on a voice terminal. The split supervisor 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 CMS to Set Up Intraflow for Generic 2/System 85

Intraflow can also be set up and activated from the CMS. The Split Parameters window (see Chapter 9, “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 CMS (see Chapter 6, “Timetables and Shortcuts”), intraflow can be activated automatically according to the specified schedule.

⇒ NOTE:

CMS cannot be used to set up or activate interflow. The supervisor must activate interflow manually when needed.

Intraflow and Interflow for 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*
- An attendant group
- An announcement followed by a forced disconnect.

*

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 CMS.

For interflow, the destinations can be those listed for intraflow, plus the CAS attendant. Calls are interflowed outside of the switch using the Automatic Alternate Routing (AAR) or Automatic Route Selection (ARS) feature. Consequently, an interflow destination must be a telephone number that can be processed by one of these call-routing features.

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, even if intraflow is also active. If the interflow destination cannot accept the call, the caller hears a busy signal.

ACD splits can be set up to intraflow/interflow calls unconditionally. 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.

Splits can also be set up to intraflow calls when one or both 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.

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 specified 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, 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 for Generic 3/
Generic 1**

At any one time, a split can have either intraflow or interflow active, but not both. However, both conditional (Call Coverage) and unconditional (Call Forwarding) intraflow can be simultaneously active for a split. 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, CMS will peg incoming calls for the DNIS number (that redirected via conditional intraflow to real splits) as outflows. CMS will also peg 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. The intraflow criteria then remain active, and intraflow occurs either unconditionally or whenever the criteria are met. Also through switch administration, console permissions and the interflow dial access code are assigned. Unconditional interflow can be activated by entering the interflow dial access code, the split's extension, and the interflow destination number.

⇒ NOTE:

With Generic 3/Generic 1, the split supervisor cannot establish intraflow from a voice terminal. Furthermore, 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 a destination connected to the local switch. The Night Service destination for the split must be assigned through switch administration. Also, the Night Service feature and the specific split number must also be assigned to a button on the split supervisor's voice terminal, a split agent's voice terminal, or both. The split supervisor or the agent can then activate Night Service for the split simply by pressing the Night Service button.

- **Trunk Group Night Service**

Trunk Group Night Service redirects all calls arriving over a split's assigned trunk groups to a local destination. This Night Service destination for the trunk group(s) must be assigned through switch administration. Also, the Night Service feature and the specific trunk group number must also be assigned to a button on a split supervisor's voice terminal, an agent's voice terminal, or both. The supervisor or agent can then activate Trunk Group Night Service for the split simply by pressing a button.

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 for a split at the same time. However, if the Trunk Group Night Service destination differs from the Hunt Group Night Service destination, calls will go to the Trunk Group Night Service destination.

- **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

Agent extensions and the type of call distribution are assigned to a split through switch administration. The following types of call distribution can be assigned to the switch (all three types are not available with every switch model):

- **Direct Hunting**

The ACD software checks for an available agent in the order that extensions were assigned to the split, always starting with the first extension assigned to the split. This type of call distribution is most useful when management wants to maximize the number of calls to the most effective agents. Agents are rank ordered from most to least effective and then are assigned to the split in that order. For Generic 3/Generic 1, Direct Hunting is called Direct Department Calling (DDC).

- **Circular Hunting**

The ACD software checks for an available agent in the order that extensions were assigned to the split, starting with the last agent who handled an ACD call. This type of call distribution is useful in maintaining a balanced workload among all agents. Circular hunting is not available with Generic 3/Generic 1.

- **Most Idle Agent (MIA)**

The ACD software finds the agent extension that has been idle (or not engaged in ACD-related work) the longest and sends the call to that extension. This type of call distribution, which is sometimes called "true ACD," ensures a high degree of equity in agents' workloads even when the calls are not similar in length. For Generic 3/Generic 1, Most Idle Agent is called Uniform Call Distribution (UCD).

For Generic 2/System 85, the MIA type of call distribution can be administered so that the ACD counts an outgoing call from an agent extension as ACD-related work and, consequently, the agent is not moved forward in the most-idle-agent queue. (The outbound call will be considered an ACD call for purposes of agent availability.)

How Agents Handle Calls

An agent can receive split calls and, in most cases, personal calls that are not related to a split. Calls dialed to a split and then distributed to an agent's extension are called **ACD calls**. Calls dialed directly to an individual agent using the agent's extension number (such as internal calls and DID extension calls) are called **extension-in (EXT-IN) calls**. Outgoing calls the agent makes are called **extension-out (EXT-OUT) calls**. EXT-IN and EXT-OUT calls are considered **non-ACD calls**.

⇒ NOTE:

The capability of a voice terminal to receive EXT-IN calls or to make EXT-OUT calls can be restricted through switch administration.

ACD calls are only distributed to "available" agent extensions. To be considered available, an agent must first staff an agent extension and then select a call answering mode.

Staffing an Agent Extension on Generic 3/ Generic 1

To staff an agent extension on Generic 3/Generic 1, an agent must dial a login access code or press an assigned **LOGIN** button on the agent's voice terminal. The agent must then dial a split number and login ID. The required login ID length, the login dial access code, and, if desired, the **LOGIN** buttons on agent voice terminals must be set up through switch administration. The split number may also be assigned to the **LOGIN** button or another button for faster agent login.

Staffing an Agent Extension on Generic 2/ System 85

To staff a split extension on Generic 2/System 85, an agent must press one of two buttons on the voice terminal for that agent's extension:

- **STAFFED**

The STAFFED button notifies the ACD that an agent is preparing to receive calls on the extension. However, to actually receive calls, the agent will still have to press another button, the AUTO-IN or MANUAL-IN button, both of which are described later in this Appendix. Also, CMS will not gather any data on an agent that staffs an extension with the STAFFED button.

On most voice terminals, if the agent uses a voice terminal headset to answer calls, plugging the headset into the voice terminal tells the ACD that the extension is staffed.

- **LOGIN**

The LOGIN button tells the ACD that the agent is going to begin logging in. Then, after the agent logs in, the extension becomes staffed and CMS begins to gather data on that agent's activity. Logging in is required for CMS data collection, even if the agent is using a headset. For Generic 2/System 85, the login ID, a four-digit number, must be entered twice.

Dial access codes for ACD staffing and/or login must be assigned through switch administration. Also using switch procedures, the STAFFED button or LOGIN button can be assigned on each agent voice terminal. An agent can then press a button or enter the appropriate dial access code to staff or log into an agent extension.

⇒ **NOTE:**

An agent cannot get ACD calls on an extension for which CMS gathers data unless the agent presses the **LOGIN** button. Therefore, when an extension is assigned to CMS data collection, the agent's voice terminal normally has only the **LOGIN** button. Conversely, when an extension is **not** assigned to CMS data collection, the agent's voice terminal normally has only the **STAFFED** 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 CMS, each login counts toward the maximum number of agents. That is, if four agents are each logged into three splits, the agent count is 12. For Generic 2/System 85, an agent can log into only one split.

Call Answering Modes

Immediately after an extension becomes staffed, 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 two 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 sends a call to that agent's extension according to the established call distribution method. After the agent finishes the call, the agent is considered to be in an **“After-Call-Work (ACW)”** state and is not considered available for another split call. If the agent presses MANUAL-IN again, the agent becomes available for another split call. The manual-in mode is most effective when an agent must perform call-related tasks immediately after finishing each call.

- **AUTO-IN**

Like the MANUAL-IN button, the AUTO-IN button tells the ACD that the agent is available for split calls. However, after an agent finishes a call, the ACD considers the agent to be available again and sends the agent another call according to the established call distribution method. The agent does not have to press any buttons to receive another call. This type of call answering increases the number of calls that agents can answer in a given period of time, especially if agents have to do little call-related work when calls have been completed.

⇒ **NOTE:**

When an agent finishes a call, the system may take up to six seconds to completely disconnect the call. Therefore, it is recommended that an agent use the RELEASE button to immediately disconnect calls after they are complete.

The MANUAL-IN and AUTO-IN dial access codes and the associated buttons on each agent's voice terminal must be 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. Thus, 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 incoming zip tone.) When a call connects to an agent's voice terminal, the agent will hear one of the three types of zip tone on the headset:

- One burst of zip tone — For calls dialed directly to the split (or agent extension on Generic 3/Generic 1)
- **On Generic 2/System 85 only.** Two bursts of zip tone — For calls intraflowed from another split.
- **On Generic 2/System 85 only.** Three bursts of zip tone — For calls interflowed from another split.

Then, without pushing any buttons, the agent immediately greets the caller.

Ringing (called “manual answer” in switch administration) or zip tone (called “automatic answer” in switch administration) can be established on a per-voice terminal basis through switch administration.

Auxiliary Work and After-Call-Work

To temporarily prevent ACD calls from arriving at an agent's voice terminal, an agent can press one of two buttons:

- **AUX-WORK**

The Auxiliary Work (AUX-WORK) 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, taking breaks, 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 begin receiving 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) must be assigned through switch administration.

On Generic 3/Generic 1, if an agent is normally logged into more than one split, an AUX-WORK button for each split may be assigned. Then, when the agent presses the AUX-WORK 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 three splits and the agent receives an ACD call for one split, the ACD will automatically place the agent in AUX-WORK for the other two splits.

■ **ACW**

The After-Call-Work (ACW) button is only available for voice terminals connected to the Generic 3/Generic 1. This button also temporarily stops calls from arriving at the agent's voice terminal. An agent who is in Auto-In mode normally 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 to get information. 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 agent completes a call. 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 this button (or enter a dial access code, if no button is available).

If an agent is logged into more than one split, pressing the ACW button makes the agent unavailable for calls in all splits. 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

Agents use these buttons to place and answer calls. Two status lamps (red and green) are adjacent 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 alert an agent to an incoming call.

Except with multiple call-handling, incoming ACD calls always arrive at the first appearance. However, voice terminals may have additional appearances to provide expanded functionality for agents. For example, on a second appearance, an agent can more readily transfer and 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 is automatically assigned to be only a call originating appearance: that is, calls will not arrive on the second appearance.

For Generic 2/System 85, the second appearance on a two-appearance voice terminal should also be call-originating only, though this is not mandatory. 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 set to receive and make calls, and the third appearance can be set only for making calls. This setup allows an agent to receive two calls at the same time (for example, when the agent has multiple call-handling capability on Generic 2/System 85 R2V4), yet keeps one line always available for placing and transferring calls.

■ **ASSIST**

Agents 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 places the current call on hold.

■ **AUDIO TROUBLE** (on Generic 2/System 85)

Agents press this button to notify the CMS that a call has poor transmission. When the agent presses the AUDIO TROUBLE button, the switch tells CMS what the agent's extension is, what trunk is being used, and the time of day the trouble occurred. This information is reported in CMS exception reports and is useful for trouble-shooting trunk and extension problems (see Chapter 8, "Exceptions").

■ **CONFERENCE**

Agents press this button to add another person into 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 may be added.

⇒ NOTE:

Single appearance voice terminals do not have a Conference button. Agents must instead 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.

■ **EMERGENCY** (on Generic 2/System 85 R2V4)

Agents press this button to notify the attendant of a malicious call. The attendant can then perform a call trace.

■ **HOLD**

Agents press this button to place a call on hold. The ACD will not send any more ACD calls to the agent as long as a call is on hold. However, for switches with the Multiple Call Handling capability, the ACD will send calls to the agent even if the agent has pressed the HOLD button, provided the agent presses AUTO-IN or MANUAL-IN while the other call is still on hold.

⇒ 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.

■ **LOGOUT**

Agents press this button to unstaff their extensions and end CMS gathering of agent data.

If an agent pressed STAFFED to staff a voice terminal, the agent simply presses STAFFED again to unstaff the voice terminal.

■ **RECALL**

Agents with single-appearance voice terminals press the RECALL button to put calls on hold, transfer calls, and create conference calls.

■ **RELEASE**

As mentioned earlier, agents press the RELEASE button to quickly disconnect completed calls. If the RELEASE button is not pressed, the automatic disconnect normally takes about six seconds. The RELEASE button, on the other hand, takes only 1/10 of 1 second to disconnect a call.

■ **REPEAT** (on Generic 2/System 85 R2V4)

Agents press this button to repeat city-of-origin announcements, which they may hear when they receive interflowed calls from a split in another city. Agents can also use the REPEAT button to repeat queue-of-origin announcements, which they may hear when they receive intraflowed calls from a local split.

■ **STROKE COUNT** Buttons (on Generic 3, Generic 2, System 85)

Up to nine buttons are available for use. Agents press these buttons to tabulate certain call events of interest. Call center management decides what each of the buttons will represent. Whenever the agent encounters an assigned type of event, the agent presses the associated stroke count button to record that event occurrence. CMS records and reports stroke-count information.

■ **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. The ACD considers the agent receiving the transfer to be on an extension-in call. For the agent transferring a call, the call is not counted as an EXT-OUT call.

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 shows a sample button layout for an agent's voice terminal, the CALLMASTER™ voice terminal in this case.

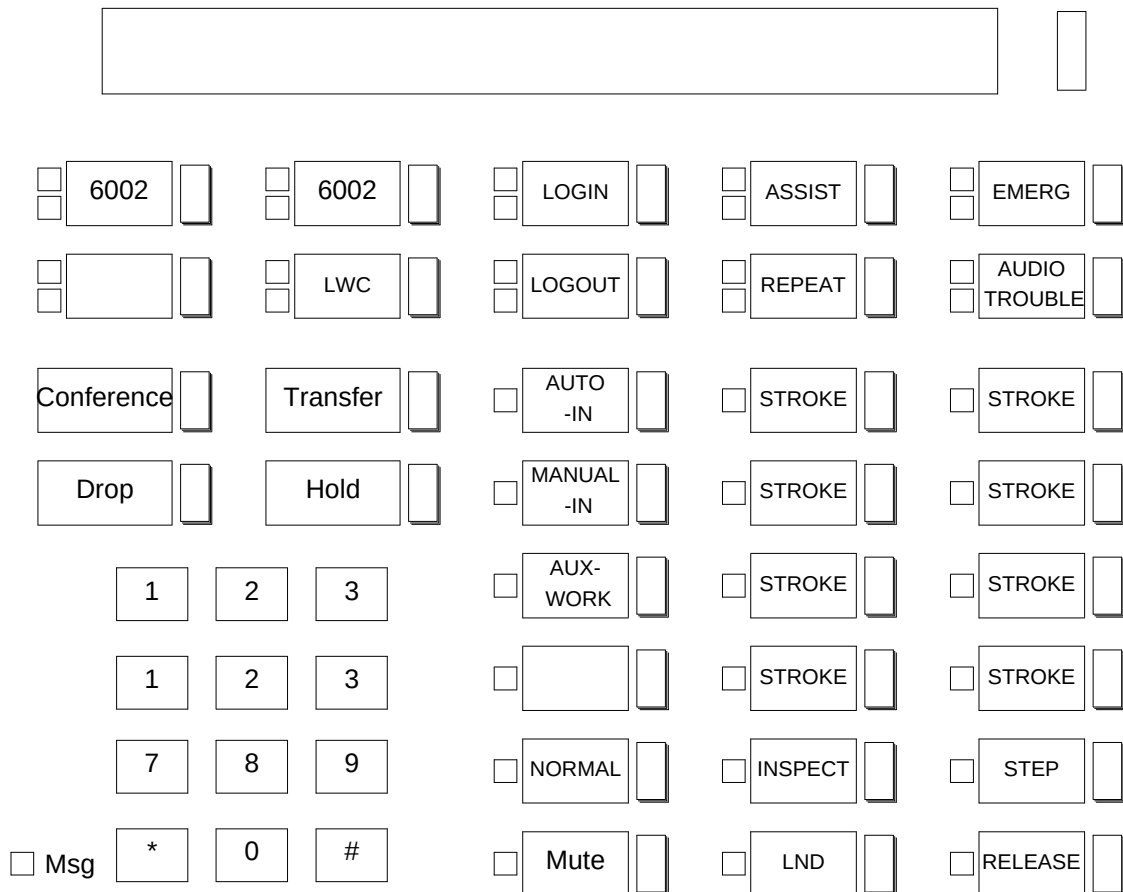


Figure D-3. Sample Button Layout (With Display) for Agent Terminal (CALLMASTER Voice Terminal)†

† Stroke count buttons are not available on Generic 1.

Incoming Call Announcements for Agents on Generic 2/ System 85

On Generic 2/System 85, an agent can receive an announcement immediately before answering a call. This announcement tells the agent the location from which the call is coming. If a call is intraflowed from a local split, the agent may hear a **queue-of-origin announcement** that tells the agent what split the call came from. If the call is interflowed from a split in a remote switch, the agent may hear a **city-of-origin** announcement that tells the agent what city the call came from. An agent can press the REPEAT voice terminal button to repeat the announcement if the agent misses it the first time.

Announcements are assigned to the originally-called internal splits and trunk groups through switch administration. Announcements can also be assigned specifically to incoming trunk groups. In this case, an agent may also hear city-of-origin announcements for ACD calls dialed directly to the split.

Incoming Call Displays for Agents on Generic 2/ System 85

On a Generic 2/System 85, an agent can receive queue-of-origin and city-of-origin **displays** instead of, or in addition to, announcements if the agent has a display voice terminal (for example, the 7406D, 7407D, or CALLMASTER voice terminal). Displays are the visual equivalent of announcements.

The actual word(s) contained in a display must be assigned to the originally called split or the incoming trunk group.

A queue-of-origin display might look like this:

a=Region 2

A city-of-origin display might look like this:

a=Detroit

Queue Status Displays for Agents on Generic 2/ System 85 R2V4

On Generic 2/System 85, an agent with a display voice terminal can receive queue status displays simultaneously with incoming call displays. This information is only available while the agent is active on an ACD call. A queue status display can give the agent two types of 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 queue status display might look like this:

a=Region 2	5 009

Three additional buttons may be available on a display terminal to give an agent control of the displays:

- **DISPLAY** (On the 7407D Integrated Display Terminal only)
The agent presses this button to activate the display feature on the voice terminal.
- **INSPECT**
The agent presses this button to display new incoming call information (either an extension-in call or an intraflowed/ interflowed call) when the agent is already on an ACD call.
- **NORMAL**
The agent presses this button to update the queue status display. This button is useful if the agent wants to check the queue's current status while still on an ACD call.

The queue status display feature and the associated buttons are assigned to each voice terminal 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 "*****".

Queue Status Indications for Generic 3/ Generic 1

Agents with display voice terminals may receive queue status displays that are basically the same as those on the Generic 2/System 85, except that the maximum displayed calls in queue matches the maximum queue size.

Queue Status Lamps on Agent Voice Terminals for Generic 3/Generic 1

Button lamps on agent voice terminals may be assigned to provide one or both of the following queue status indications:

- **NQC**

A button on each agent's voice terminal may be assigned to show the Number of Queued Calls (NQC). The lamp associated with this button tells the agent when the number of calls in queue has met or exceeded the assigned queue size 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. In this way, agents can see when calls have backed up in queue. Agents then know they need to be especially fast in dispensing with incoming calls.

- **OQT**

A button on each agent's voice terminal may be assigned to show the Oldest Queued Time (OQT). The lamp associated with this button tells the agent 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.

The thresholds that cause the lamps to flash and the individual buttons on each agent voice terminal must be assigned through switch administration.

Auxiliary Queue Status Lamps for Generic 3/ Generic 1

An auxiliary queue status lamp notifies agents when either the Number of Queued Calls threshold or the Oldest Queued Time threshold has been reached. The lamp lights steadily 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** (on 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** (on 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.

- **INTRAFLO ALL** (on 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** (on 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** (on 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 may be available.

- **VERIFY ANNCT** (on Generic 2/System 85)

The split supervisor presses this button to listen to the split's first announcement. The supervisor then listens to the announcement to verify that it plays correctly and serves its purpose.

- **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-answering techniques. An agent's voice terminal may also be assigned the SERVICE OBSERVE button so that the agent can listen to another agent's conversations. The ability for an agent to service observe other agents is particularly useful in training. Service observing can be set up for listening only or for both listening and talking.

- **RECORD ANNCT** (on Generic 3/Generic 1)

The supervisor presses this button to either listen to or record an announcement for the split.

Figure D-4 shows an example of a button layout for a split supervisor's voice terminal.

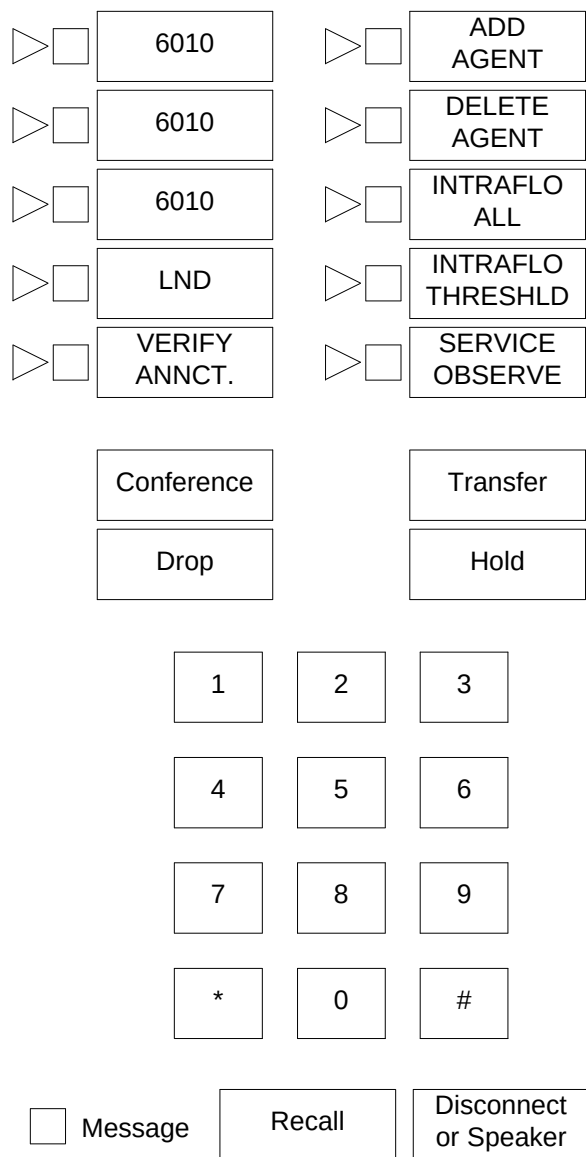


Figure D-4. Split Supervisor Terminal — Without Agent Responsibilities (16-Button Set)

Assigning CMS Measurement of the ACD

CMS collects data on splits, agents, extensions, trunks, and trunk groups. However, for CMS to collect data, the appropriate items (splits, extensions, and so on) must be identified as **measured**. Measured means that, for any split, extension, agent, trunk, or trunk group, CMS will produce data on that item. The CMS Session Status screen (see Chapter 12, "Maintenance") lists the total number of measured splits, extensions (Agent Positions), trunks, and trunk groups established in an ACD.

CMS Measurement of the Generic 2/ System 85 ACD

On Generic 2/System 85, each individual extension and trunk group must be assigned to 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 CMS by entering a number of measured splits on the Session Status screen. The number of splits CMS can measure can be smaller than the number of splits assigned to the switch, but not greater.

CMS Measurement of the Generic 3/ Generic 1 ACD

For Generic 3/Generic 1, individual splits and trunk groups are assigned to CMS measurement through switch administration. Extensions are measured by virtue of their assignment to splits, and trunks are measured by virtue of their assignment to trunk groups. The number of measured splits cannot be changed using the CMS Session Status screen. Rather, the number of measured splits entered on the Session Status screen must match the number of measured splits already assigned to the switch. The number of splits CMS can measure can be smaller than the number of splits assigned to the switch, but not greater.

Switch Features That Affect CMS Data

How the HOLD, CONFERENCE, TRANSFER, and RECALL Buttons Affect Agent/Trunk Data

When an agent presses the HOLD or CONFERENCE button, no changes in that agent's state occur. The agent is still considered to be in the same ACD state (either an EXT-IN or ACD). This is also true for the trunk carrying the call. If the agent added to the conference call was in AUX or AVAIL, the state *will* change to AUXIN. Also, if the added agent is in ACW, the state changes to ACWIN. In both cases, the added agent is credited with an extension-in call. Also, when an agent presses RECALL on a single-appearance voice terminal to hold or conference a call, no status change is recorded for the agent(s) or for the trunk carrying the call.

On Generic 2/System 85 R2V4, an agent can place a call on hold, then press the MANUAL-IN or AUTO-IN button to become available for another ACD call. Thus, an agent can have multiple-call handling ability. When multiple-call handling is set up, the switch sends information to CMS about calls placed on hold. This information is not available on standard CMS reports. However, a custom report that contains this information can be created.

When calls are transferred using the TRANSFER button (on multiappearance voice terminals), the switch notifies CMS. If a transferred call is an ACD call, the originating agent extension and split are pegged with an ACD call and are only charged for the time on the original connection. If the call is transferred to another measured ACD extension, the receiving extension is pegged with an EXT-IN call (regardless of the nature of the original call), and the time on the call is then charged to that extension.

⇒ NOTE:

The originating extension for a transferred call is **not** charged with an EXT-OUT call **unless** the Multiple Call Handling feature (available only on a Generic 2/System 85 R2V4 switch) is active.

When calls are transferred using the RECALL button on single appearance terminals, no message is sent to CMS. All time on the call is recorded for the original extension, even though part of the call is handled by another extension.

A trunk's ACD time is continuous for the duration of a transferred call, at all of its points of answer. The trunk is pegged only for one answer in the CMS. If a call abandons after the original answer (but before being picked up by the agent and split to whom it is transferred), the abandon is not pegged for the trunk. Nor is the second answer recorded for the trunk, if there is one.

How Intraflow/Interflow Affect CMS Data

When a call is intraflowed or interflowed from a split, CMS counts that call as a FLOW-OUT call for the split. If a call is intraflowed into a split, CMS counts that call as a FLOW-IN call for the split. (Interflowed calls are recognized only as ordinary incoming calls by CMS.) However, since calls can be intraflowed/interflowed to destinations that are not in the ACD or are non-measured parts of the ACD, each FLOW-OUT call from a split will not always show a corresponding FLOW-IN call for another split. Conversely, since calls can be intraflowed/interflowed into a split from originating locations that are not ACD-measured, each FLOW-IN call to a split will not always show a corresponding FLOW-OUT for another split.

If an intraflowed/interflowed call connects to an agent in the destination split, that call is counted as an ACD call for the split.

On Generic 3/Generic 1, a dummy split may be established which intraflows calls to another split. For CMS to peg FLOW-OUT calls for dummy splits, intraflow should be established using the Call Forwarding feature. If Call Coverage is used, at least one agent must log into the dummy split and go into ACW, and the call must queue to the dummy split for at least one ring cycle in order for a flow-out call to be pegged.

⇒ NOTE:

If the Call Vectoring feature is active on the Generic 2 or R2V4 System 85 switch, intraflow and interflow work quite differently. Therefore, CMS data related to intraflow and interflow is recorded differently.

How the Call Pickup Feature Affects CMS Data

When an agent uses the Call Pickup feature to pick up an ACD call that rings at another agent's extension, the call will be pegged as an **AUX-IN** call for the agent picking up the call (and for that agent's split). The split of the agent whose terminal originally rang will be pegged with an **OUTFLOW** call, even if the agent picking up the call is in the same split.

Thus, when Call Pickup is used, CMS does **not** peg the call as an ACD call, even though the call queued to a split 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 via the Call Pickup feature.

⇒ NOTE:

If you have a Generic 2 switch, Load 3.0 with the ring-state patch or a Generic 2, Load 3.1, CMS will also peg the agent whose terminal originally rang (and that agent's split) with a **RINGFWD** call.

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