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***CentreVu***<sup>™</sup>  
**Call Management System**  
**Release 3 Version 4**  
**Change Description**



# CentreVu™ Call Management System

## Release 3 Version 4

### Change Description

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## General Information

The *CentreVu™ Call Management System Release 3 Version 4 Change Description, Issue 2* (AT&T 585-215-803) document is written for call center customers who are:

- Upgrading from a 3B Release 2 CMS (R2) to *CentreVu* CMS (*Chapter 1*).
- Upgrading from a Release 3.0 CMS (R3 CMS) to *CentreVu* CMS (*Chapter 2*).
- Upgrading from a Release 3 Version 2 CMS (R3V2 CMS) to *CentreVu* CMS (*Chapter 3*).
- Updating from Issue 1.0 to Issue 1.1 of *CentreVu* CMS (*Chapter 4*).

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# Organization and Use of This Document

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## Organization of Document

This document is organized as follows:

- Chapter 1*      **Differences Between R2 CMS and CentreVu CMS**
  - Chapter 2*      **Differences Between R3.0 CMS and CentreVu CMS**
  - Chapter 3*      **Differences Between R3V2 CMS and CentreVu CMS**
  - Chapter 4*      **Differences Between CentreVu CMS Issue 1.0 and Issue 1.1**
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## Use of Document

You will use this document to understand the major differences between your current version of CMS and the *CentreVu* CMS.

## General Information

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### Audience

This chapter is written for customers who are upgrading from a Release 2 3B Call Management System (R2 CMS) to a *CentreVu*<sup>™</sup> Call Management System Release 3 Version 4 (*CentreVu* CMS).

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### Introduction

This chapter describes the differences between the R2 CMS and the *CentreVu* CMS. Although the concept of tracking calls processed through the Automatic Call Distribution (ACD) feature of the switch is the same, *CentreVu* CMS is very different from R2 CMS.

The chapter is organized in the following sections:

- Differences and Enhancement Overview
- Data, Database Items, and Calculations
- CMS and Expert Agent Selection (EAS)
- Personal Call Tracking (PCT)
- Real-Time Reports
- Historical Reports
- Timetables and Shortcuts
- Dictionary
- Exceptions
- ACD Administration
- User Permissions
- System Setup
- Maintenance
- *UNIX*<sup>\*</sup> System
- Custom Reports
- Forecasting
- User Interface
- Miscellaneous.

---

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

## Differences and Enhancement Overview

This section overviews the major differences in and enhancements to the *CentreVu* CMS software in comparison to the R2 CMS. The remainder of this chapter provides more in-depth information on the differences between R2 CMS and *CentreVu* CMS.

---

### General Changes

- *CentreVu* CMS supports the following:
  - Better reporting of call data
  - More database items and calculations
  - Support for additional Call Vectoring steps with Generic 3 Version 2 and later switches
  - More Real-Time reports
  - More Historical reports
  - More Exceptions conditions
  - Enhanced Custom Reports Creation tool
  - Call history (call record) capabilities.
- *CentreVu* CMS runs on *Sun*<sup>\*</sup> *SPARCserver*<sup>†</sup> 5, 10, and 20 computers. *INTEL*<sup>‡</sup> platforms are still supported, but new CMS installations will be on *Sun* computers. See the "Sun Platform" section later in this chapter.  
  
Refer to the *CentreVu*<sup>™</sup> CMS *Sun*<sup>®</sup> *SPARCserver*<sup>™</sup> *Computers Installation and Maintenance* (AT&T 585-215-807) document for more information.
- *CentreVu* CMS supports multiple ACDs differently.
- *CentreVu* CMS uses switch time, not *UNIX* system time as R2 CMS did.
- *CentreVu* CMS supports EAS on the Generic 2.2, and Generic 3 Version 2 and later switches.
- *CentreVu* CMS tracks extension calls made by an agent to an agent using the PCT feature on Generic 3 and Generic 2.2 switches.

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\*Sun is a registered trademark of Sun Microsystems, Inc.

†SPARCserver is a trademark of SPARC International.

‡INTEL is a registered trademark of Intel Corporation.

## **CentreVu CMS Documents**

The document set for *CentreVu* CMS is different from the R2 CMS document set. The *CentreVu* CMS documents available to you are:

- AT&T 585-215-800 — *CentreVu™ CMS R3V4 Administration*
- AT&T 585-215-801 — *CentreVu™ CMS R3V4 Reports*
- AT&T 585-215-802 — *CentreVu™ CMS R3V4 Custom Reports*
- AT&T 585-215-803 — *CentreVu™ CMS R3V4 Change Description*
- AT&T 585-215-804 — *CentreVu™ CMS External Call History Interface*
- AT&T 585-215-806 — *CentreVu™ CMS R3V4 Upgrades and Migrations*
- AT&T 585-215-807 — *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance*
- AT&T 585-215-808 — *CentreVu™ CMS R3V4 Sun® Connectivity Diagram*
- AT&T 585-215-812 — *CentreVu™ CMS Forecast.*

In addition to paper documents, the following *CentreVu* CMS documents available on CD-ROM (AT&T 585-215-890):

- *CentreVu™ CMS Administration*
- *CentreVu™ CMS Reports*
- *CentreVu™ CMS Custom Reports*
- *CentreVu™ CMS External Call History*
- *CentreVu™ CMS Sun® SPARCserver™ Computers Upgrades and Migration*
- *CentreVu™ CMS Forecast.*

## Sun Platform

*CentreVu* CMS supports *Sun SPARCserver* 5, 10, and 20 computers running *Solaris*\* 2.4. All new CMS installations will be on *Sun* computers.

Refer to the *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance* (AT&T 585-215-807) document for more information.

The *Sun* platform:

- Provides multiprocessor capabilities.
- Increases processor performance (approximately five times faster than the *INTEL* platforms).
- Increases storage capacity (3-GB disk capacity which can increase to 24-GB disk capacity)
- Increases serial I/O capacity (up to 252 devices) which means you can have up to 252 terminals or any combination of terminals, printers, or modems.
- Improves real-time report refresh rate.
- Enhances system reliability using error correcting memory.
- Allows for cost-effective upgrades (for example, disk storage, memory, processor, etc.).
- Provides on-line *Solaris* help via *AnswerBook* software.
- Uses *Solaris* 2.4 as the operating system with the *CentreVu* CMS software.
- Provides remote console functionality.
- Supports 2-GB internal or external disks.
- Supports 150-MB, 2.5-GB, 5-GB, and 14-GB tape drives.
- Supports the Aurora SBus *Multiport*† cards.
- Supports 8, 16, and 64 port Network Terminal Servers (NTS).

---

\*Solaris is a registered trademark of Sun Microsystems, Inc.

†Multiport is a trademark of Aurora Technologies, Inc.

## ***INTEL* Platform**

*CentreVu* CMS supports the following *INTEL* platforms:

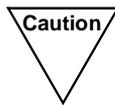
- AT&T 6386 WGS 25/S
- AT&T 6386 WGS 33/S
- AT&T *StarServer*<sup>®</sup> S
- 3332.

## Supported Switch Capacities

*CentreVu* CMS supports the following switch capacities:.

**Table 1-1:**

Item	R2V4	G2.2/ EAS	G1.1	G3i/ G3V2	G3r	G3V2/ V3/V4	Total CMS
Agent Positions	1023	1023/ 5115	400	400	1023	5200	5200
Agents Logged In	1023	1023/ 1023	400	400	1023	5200	5200
Agent Trace Active	25	25	25	25	25	25	25
BHCC (ISDN system)	25000	25000	5700	7000	40000	40000	40000
Call records (internal)	5000	5000	5000	5000	5000	5000	5000
Call Work Codes	0	1999	0	1999	1999	1999	1999
Exception Records	2000	2000	2000	2000	2000	2000	2000
Login IDs	10000	10000	10000	10000	10000	10000	10000
Login/Logout Records	999999	999999	999999	999999	999999	999999	999999
Splits/Skills	60	60/600	99	99	99	255	600
Trunk Groups	255	255	99	99	255	666	666
Trunks (measured+unmeasured)	4000	4000	400	400	4000	4000	4000
VDNs (measured)	2000	2000	n/a	500	2000	2000	2000
Vectors	128	511	n/a	256	512	512	2048
Vector Steps	15	15	n/a	15	15	32	32



Even though *CentreVu* CMS supports these capacities, you will not be able to upgrade unless you have sufficient free space on your disk to accommodate all the data you want to collect. Your current disk space allocation may specify more items to be measured for longer lengths of time than you actually have space for on your disk. If you do not have enough disk space, then you must purchase more disks, make the length of time data is stored shorter, or lower the number of entities measured before you can upgrade.

## External Call History Interface

The External Call History Interface (ECHI) is now supported on the *INTEL* and *Sun* hardware platforms. Please refer to the *CentreVu™ CMS External Call History Interface* (AT&T 585-215-804) document for information on using the ECHI feature.

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## Multi-ACDs

*CentreVu* CMS supports multiple ACDs. Up to four ACDs can report to one CMS. The changes that have been made to *CentreVu* CMS to support multiple ACDs are outlined in each appropriate section of this chapter.

---

## CMS and Expert Agent Selection (EAS)

Expert Agent Selection (EAS) is an optional feature that builds on the power of the Call Vectoring and ACD features of the switch by routing incoming calls to the correct agent on the first try. EAS call distribution is based on **skill**. By using the ACD queuing and the vector commands *Queue-to-Main* and *Check-Backup*, a call routes to an agent that has the skills required to handle that call. Calls are queued to skills and handled by an agent who is a member of at least one of the skills associated with the skills that a caller requires.

The EAS feature requires extensive planning before implementation. Also, the EAS feature has different capabilities on different switches. This section gives a high-level description of EAS and the changes on CMS to track this feature. See the “CMS and the Expert Agent Selection Feature” Appendix in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for a more in-depth description.

## EAS on Generic 3 Version 2 and Later Switches

With EAS on Generic 3 Version 2 and later switches, agent login IDs must be part of the extension dialing plan and must also be different from the agent voice terminal extensions. It may be necessary to readminister the CMS agent login ID synonyms in the Dictionary. If you must change login IDs, then the agent data collected prior to the EAS cut will have a different login ID and will require a separate report invocation.

## EAS on Generic 2.2 Switches

With Generic 2.2 switches, EAS increases the number of agent groups by expanding each ACD split into a set of 10 skills called a *skill tens group*. When EAS is active, each ACD split becomes a skill tens group. The translation of splits to skill tens groups works as follows:

Split		Skill Tens Group
1	→	10-19
2	→	20-29
3	→	30-39
4	→	40-49
	•	
	•	
	•	
60	→	600-609

When creating vectors, a call can be queued to up to three skills at the same time (Multiple Skill Queuing) as long as the skills all belong to the same skill tens group. For example, queuing to skills 26 and 21 is multiple skill queuing, but queuing to skills 21 and 53 is not because the call outflows from skill 21 and inflows to skill group 53. Likewise, queuing to skills 24, 21, and 33 results in an outflow from 24 and 21 and an inflow to skill 33 because it is in a different skill group.

Skill groups ending in zero (20, 30, 40, etc.) are default skill groups. These are super groups for the skill tens group. A call queued to skill 10 can be delivered to anyone with skills 10-19. Agents are administered to defaults and then enter other skills via their voice terminals.

---

## Move Agents While Staffed

When running with a Generic 3 Version 4 switch, *CentreVu* CMS supports changing skills (in an EAS environment) and moving agents between splits (in a non-EAS environment) without requiring the agents to log off.

You can access the Move Agents While Staffed feature from the ACD Administration subsystem. Refer to the "ACD Administration" section of this chapter and Chapter 8, "ACD Administration," in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for more information.

---

## Call Vectoring

*CentreVu* CMS supports 32 vector steps per vector. The Vector Contents window in the ACD Administration subsystem is a multi-page screen.

The following enhancements and additions have been made to the *CentreVu* CMS vectoring feature. If you are upgrading from R2 CMS and you are upgrading your switch as well, you will see other new vector steps, like call prompting and adjunct routing.

- **EAS changes** — The following vector commands have been changed from the split usage to skill usage with EAS:
  - check backup skill
  - go to step
  - go to vector
  - messaging skill
  - queue to main skill.

These commands can queue to a specific skill, can reference a VDN skill preference, or can check the conditions in the skill.

- **Converse vector step (G3V2 and later switches)** — *CentreVu* CMS supports the *converse* step. If you will be using *converse*, you will need to administer more unmeasured trunks, since the *converse* command reports about a call using an unmeasured trunk.
- **Multiple Music Sources (G3V4 and later switches)** — allows you to change the “wait” vector step to hear a second audio/music message. For instance, if a caller is waiting in queue and has heard the first announcement, the vector can now direct a second treatment to the caller.
- If you try to assign an audio/music source in a “wait” vector step and your switch does not have Multiple Vector Audio/Music Sources, you will see a feature not enabled on switch message.
- **ANI Routing (G3V4 and later switches)** — is a new conditional that allows making routing decisions based on caller identity.
- **ASA Routing** — is a new conditional that allows making routing decisions depending on the switch-based rolling ASA for a given split/skill or VDN.
- **EWT Routing** — is a new conditional that allows making routing decisions based on the Expected Wait Time (EWT) of a call.
- **VDN Calls Routing** — is a new conditional that allows making routing decisions based on the number of active incoming trunk calls for a VDN.
- **II Digits Routing** — is a new conditional that allows making routing decisions based on Information Indicator digits provided with a call.
- **Enhanced comparator capabilities** — adds < >, >=, <=, in table, not-in table comparators; allows “goto” and “route to number” commands

use of the complete set of comparators; implements a “none” threshold for digits checking, and “active” or “latest” VDN thresholds for indirect VDN references.

- **Wildcard matching** — allows you to use + and ? for matching collected digits or ANI digits. Wildcard matching can only be used with the = or < > comparators.
- **“with coverage yes/no” parameter** — has been added to the “route to number” command to allow flexible routing control.
- **Abbreviated/pack vector steps** — enable vector steps to be expanded to include additional commands and options.
- **Adding or deleting vector steps** — automatically modifies vector step numbers when you add or delete vector steps.

For more information on using the new vector features, refer to the "ACD Administration" section of this chapter, Chapter 8, “ACD Administration,” and Appendix B. “Call Vectoring and Related Generic 3 Feature,” in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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## Average Speed of Answer (ASA)

*CentreVu* CMS continues to compute average speed of answer (ASA) as it has in the past and to use ASA in existing reports. However, the Generic 3 Version 4 switch provides a Rolling ASA. The Rolling ASA is reported in exceptions reports and is available for use in custom reports.

For information on ASA, refer to the "Exceptions" section of this chapter and Chapter 7, “Exceptions,” in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Expected Wait Time (EWT)

The Expected Wait Time (EWT) is the estimated time a call will wait if it is queued to a split/skill at a specific priority. EWT measures only the time it takes to deliver the call to an agent. It does not include ringing time.

EWT is shown in the real-time Split Status and Skill Status reports and exceptions reports. EWT thresholds can be administered in the Exceptions subsystem. If you have a pre-Generic 3 Version 4 switch, the EWT columns/fields are shown but always remain blank.

For more information on EWT, refer to the "Exceptions" section of this chapter and Chapter 7, “Exceptions,” in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

## Phantom Abandon Call Timer

In international areas where central offices do not provide the switch with disconnect supervision, all calls with talk times that are less than an administrable threshold can be counted as abandoned calls. *CentreVu* CMS supports a phantom abandon call timer that can be administered to count calls with talk times less than 10 seconds as a phantom abandoned call.

The Phantom Abandon Call Timer can be set from 1 - 10 seconds. Any calls whose total talktime or connecttime is less than the set number of seconds are pegged as **PHANTOMABNS**, instead of **ACDCALLS**. The abandon time for phantom calls is the time:

- For splits: from the time the call queued until the agent or answering station hangs up.
- For VDNs: from the time the call encountered the VDN until the agent or answering station hangs up.
- For vectors: from the time the call entered the vector until the agent or answering station hangs up.

When a call leaves a vector via a “route to split” command, the call is not pegged as an outflow, and can be pegged as a phantom abandon call if the call duration is shorter than the administered phantom abandon time.

The database item **PHANTOMABNS** records the total number of such calls. Also, these calls are counted as abandoned calls (**ABNCALLS**) rather than answered calls (**ACDCALLS**). The abandon time for these calls is equivalent to the time elapsed when the agent released the call.

When the phantom abandon call timer is not enabled, short ACD calls are not counted as phantom abandons, and the values of the **PHANTOMABNS** database items are 0.

Any call that has been put on HOLD, TRANSFERRED, or CONFERENCED is not recorded as a phantom abandon, even if it's duration is less than the setting of the phantom abandon call timer.

## Direct Agent Calls (Generic 3)

With the proper class-of-restriction settings, calls to agent login IDs can be tracked as direct agent calls. These calls are queued to a specific agent and are tracked as a special type of ACD call for the agent.

The first measured skill a logical agent is logged into (whether primary or secondary) is used by CMS to track non-ACD (direct agent) calls unless the agent has an ACD call on hold and the agent is not yet available for other ACD calls. In this case, the call is counted for the skill associated with the held ACD call.

CMS tracks the queue time for the direct agent call to the agent and the skill the call queues to unless that skill is unmeasured.

**Note** It is recommended to either expand the queue size for the first skill the agent logged into or to assign a special “direct agent” skill as the first primary skill for all logical agents so that the queue slots for the other skills the agent is logged into are not used by direct agent calls.

- **Agent Tables** — The agent tables separate direct agent calls from skill calls, and direct agent call tracking provides the same information as other agent calls.

**Note** The standard real-time and historical reports combine direct agent calls and split/skill calls. For agents, you can separate these items by creating a custom report. See the *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document for custom report creation information.

- **Split/Skill Tables** — The Split/Skill tables keep the following direct agent call information;
  - Number of direct agent calls in queue
  - Number of direct agent calls ringing
  - Oldest direct agent call
  - Number of agents on direct agent calls or in direct agent after call work
  - Direct agent calls using the skill queue slots
  - Agent time on direct agent calls is tracked as OTHER time in skill tables
  - No call data is kept for direct agent calls.
- **VDN/Vector Tables** — The VDN and vector tables include direct agent calls with skill calls as ACD calls.

## Personal Call Tracking (PCT)

CMS split and agent data now reflect calls made with another call on hold.

The Personal Call Tracking (PCT) feature on the Generic 3 and Generic 2.2 switches sends CMS information to track all personal calls an agent makes and receives, including calls made or received when the agent has a call on hold.

Older switches did not notify CMS when an agent put an ACD call on hold, so agent time with an ACD call on hold was counted as ACD talktime. There was also no tracking of any calls an agent may have made (for example, to consult with a supervisor or to transfer or conference an ACD call) or received while the ACD call was on hold.

With the PCT feature, CMS tracks calls an agent makes or receives with a call on hold. Calls are tracked as AUX IN or AUX OUT calls. Time is tracked as OTHER or AUX.

If you upgraded from an older switch release to a Generic 3 or Generic 2.2 switch, then you will see the following data tracking changes:

- An increase in the number of extension in/out calls made or received by agents, if agents make or receive calls while they have a call on hold.
- An increase in agent time on AUXIN/AUXOUT calls.
- A drop in average talktime for extension out calls, if agents conference and/or transfer calls often, since time spent in AUX for conferences and transfers is very short (a matter of seconds).
- A drop in the average talktime on ACD calls, if agents put calls on hold, since the time on hold is no longer included as ACD talktime.

When an agent places a call on hold, the agent returns to his/her previous state before the call unless the previous state was AVAIL. If the agent was in the AVAIL state, the agent is placed in the OTHER state until the agent dials a valid number (if the number dialed is invalid, the agent remains in OTHER), reconnects with the held call, or the held call abandons. When the agent reconnects to the held call, the original agent state for the call displays.

Figure 1-1 shows how *CentreVu* CMS tracks calls on hold.

Since agents do not have a HOLD state and hold time is associated with a call placed on hold, agent states during hold reflect the current activity of the agent.

	Agent answers ACD call	Agent holds call, dials supervisor	Agent talks to supervisor	Agent Reconnects to held ACD call	Call ends
S85/G2.1/G1	I_ACDTIME				
G2.2 (R3V1 CMS)	I_ACDTIME	I_AUXTIME	I_AUXOUTTIME	I_ACDTIME	
G3 (R3V1 CMS)	I_ACDTIME	I_OTHERTIME	IAUXOUTTIME	I_ACDTIME	
G2.2 (R3V2/ CentreVu CMS)	I_ACDTIME	I_AUXTIME, I_ACDAUX_OUTTIME	I_AUXOUTTIME, I_ACDAUX_OUTTIME	I_ACDTIME	
G3 (R3V2/ CentreVu CMS)	I_ACDTIME	I_OTHERTIME, I_ACDOTHERTIME	I_AUXOUTTIME, I_ACDAUX_OUTTIME	I_ACDTIME	

**Figure 1-1: Hold Tracking for Supervisor Assist Example**

Hold calls are tracked with the following database items:

- **HOLDTIME** is the time the call spent on hold.
- **HOLDCALLS** is the number of calls that were placed on hold at least once.
- **HOLDABNCALLS** is the number of calls that abandoned while on hold.
- **I\_OTHERTIME** is the time during the collection interval that the agent was doing other work.

For Generic 3, this includes time while in the Auto-In or Manual-In mode during which the agent put a call on hold and performed no further action, the agent placed a call or activated a feature, or a personal call rang with no further activity.

**PCT and Abandoned Calls**

VDN calls that route to extensions and are then abandoned are counted as abandoned calls for the VDN.

**PCT and Transferred and Conferenced Calls**

- Transferred and conferenced calls are tracked as held calls while the call(s) wait to be transferred or added to a conference.
- When an agent ends a conference call, the agent returns to the call state prior to setting up the conference.
- If an agent is talking, places the ACD call on hold to transfer the call, and then completes the transfer, then the agent goes to the AVAIL state (Auto-In) or to ACW (Manual-In) following the transfer.
- Transferred or conferenced unmeasured split, trunk group, or VDN calls are now tracked. Prior to PCT, these calls were not tracked.

## PCT and Audio Difficulty

You now get the trunk associated with audio difficulty for personal calls if the trunk group is measured. Prior to PCT, audio difficulty was restricted to ACD calls.

---

## Call Records

*CentreVu* CMS provides detailed call history reporting from internal and external call records. For example, you might have a caller that complained about being put on hold three times and then transferred. Call Records lets you review the path the call followed to determine if there is a problem.

**Internal** call records reside on CMS. The standard CMS internal call records are limited to a maximum of 5000 records.

**Note** To protect the real-time processing on CMS, internal call records can be collected only if your call center's traffic is under 400 calls in 20 minutes.

**External** call records is an optional external call record collection and export application which allows you to collect and more information than you can internally to CMS. For information on external call records, see the *CentreVu™ CMS External Call History Interface* (AT&T 585-215-804) document.

**Note** The Call Records report menu item will appear on your Historical Reports menu only if you have internal call records.

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# CentreVu CMS User Interface

For additional information on the user interface, please refer to Chapter 2 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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## General Changes

The user interface for *CentreVu* CMS has been totally redesigned since R2 CMS was released. When you log into *CentreVu* CMS you will notice:

- The title bar has changed; it has more information.
- The Main Menu is different.
- A ">" behind a menu selection indicates another menu will display. You will see a ">" on the Main Menu, subsystem menus (for example, Reports >), and screen-labeled keys (SLKs).
- The SLKs are different from R2 CMS. The SLKs in *CentreVu* CMS are always the same, no matter where you are in the system.
- *CentreVu* CMS has windowing capabilities.
- The way you move through the menus and windows has changed.
- An Action List, in menu format, appears in the upper right corner of user windows. Action Lists display the different actions that can be performed in each user window (like CHANGE in R2 CMS on an SLK).
- The way you select actions and perform procedures is consistent throughout most of *CentreVu* CMS.

**Note**

Because the user interface for *CentreVu* CMS is totally different from R2 CMS, it is extremely important that you read Chapter 2, "User Basics," in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document before trying to complete any CMS task. This chapter gives action list procedures, special key movement, terminology used in *CentreVu* CMS; describes the user interface; and more.

- The cursor remains in its original position after an input window is resized.
- Field help messages are now available for the **Window**, **Commands**, and **Keep** SLK menu items.
- For some reports, the minimum window size is now larger to prevent background text from overwriting other background text.
- Pressing the **Home** key or any other special keys no longer causes unprintable characters in the input fields.

- The `Print` key no longer causes CMS to core dump while you are in the Custom Report Screen Painter.
- An Acknowledgment window appears when an application error (for example, assigning a calculation to an empty string) occurs and displays the following message:

```
ERROR: Unable to continue processing
```

```
All windows associated with this task will be deleted.
```

```
Contact Services for help or your AT&T distributor.
```

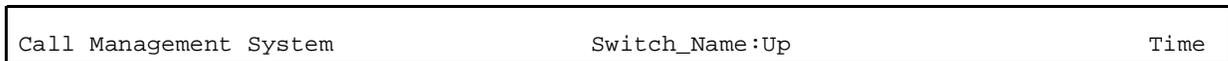
```
Press return to continue.
```

- Field validation is now handled properly. When a specific field has an invalid entry (for instance, an invalid date was entered), the cursor is automatically placed in that field so the error can be corrected.

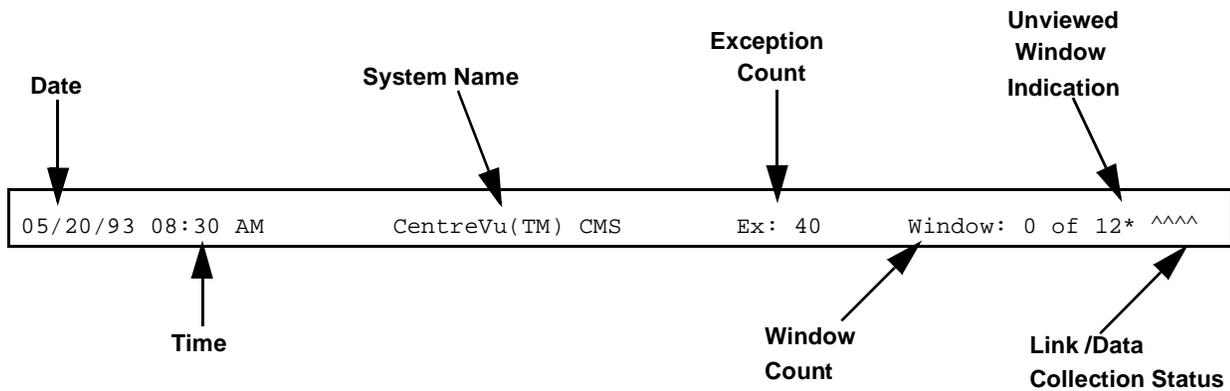
---

## Title Bar

Figure 1-2 and Figure 1-3 show the differences between the R2 CMS title bar and the *CentreVu* CMS title bar. A descriptive comparison follows the figures.



**Figure 1-2: R2 CMS Title Bar**



**Figure 1-3: CentreVu CMS Title Bar**

CentreVu CMS title bar displays the following information.

- Date**                      The current month, day, and year
- Time**                        CMS time, which is the *UNIX* system date and time. The time is updated every 60 seconds.
- System Name**              Call Management System.
- Window Count**            The first number is the number of primary windows currently open, and the second number is the maximum number of primary windows you are allowed.

**Note**                      There is a maximum limit of ten open primary windows per CMS user at one time. The CMS administrator can limit the number of windows open at any one time (one to ten) for each user. See Chapter 9, "User Permissions — User Data," for more information.

\*                              An unviewed window indication, an asterisk, appears in the window count area any time a newly opened window is not made current using the **Current** SLK or **Window** SLK—List menu item. The asterisk serves as a reminder that the new window has arrived, but may not be visible.

## R2 CMS to CentreVu CMS Main Menu

This section describes the major differences between the R2 CMS and *CentreVu* CMS main menus (Figure 1-4). The differences between the R2 CMS and *CentreVu* CMS Reports ("Differences and Enhancement Overview"), "Dictionary", "Exceptions", "Forecasting", "ACD Administration", "Custom Reports", "User Permissions", "System Setup", and "Maintenance" subsystems are described in later sections of this chapter.

<b>Note</b>
-------------

A > indicates that another menu will display when you select this menu item.

R2 CMS Main Menu Item	<i>CentreVu</i> CMS Main Menu Item
[ ] REPORTS	<b>Reports &gt;</b>
[ ] DICTIONARY	<b>Dictionary &gt;</b>
[ ] CONFIGURATION	<b>Exceptions &gt;</b>
[ ] SCHEDULE	<b>Forecast</b>
[ ] FORECAST	<b>ACD Administration &gt;</b>
[ ] EXCEPTIONS	<b>Custom Reports &gt;</b>
[ ] CUSTOM REPORTS CREATION	<b>User Permissions &gt;</b>
[ ] ADMINISTRATION	<b>System Setup &gt;</b>
[ ] MAINTENANCE	<b>Maintenance &gt;</b>
[ ] UNIX	<b>Logout</b>
[ ] MAIL	;
[ ] PASSWORD	

**Figure 1-4: R2 CMS and *CentreVu* CMS Main Menus**

The following list maps the R2 CMS menu items to the *CentreVu* CMS menu.

- REPORTS maps to **Reports >** in *CentreVu* CMS. Use **Reports >** to select standard real-time and historical reports here. Custom real-time and historical reports are accessed through **Custom Reports >**.
- DICTIONARY maps to **Dictionary >** in *CentreVu* CMS.
- CONFIGURATION maps to **ACD Administration >** in *CentreVu* CMS.

- SCHEDULE is not a main menu selection in *CentreVu* CMS. In *CentreVu* CMS, **schedules are called timetables** and are created and scheduled using Timetable. **Timetable** is a menu selection from the **Keep** SLK.
- FORECAST maps to **Forecast >** in *CentreVu* CMS.
- EXCEPTIONS maps to **Exceptions >** in *CentreVu* CMS.
- CUSTOM REPORTS CREATION maps to **Custom Reports >** on *CentreVu* CMS. You will create *and* run custom reports in *CentreVu* CMS from the **Custom Reports >** main menu item.
- ADMINISTRATION maps to **User Permissions >** in *CentreVu* CMS.
- MAINTENANCE maps to **System Setup >** and **Maintenance >** on *CentreVu* CMS.
- UNIX System is a menu selection on the **Commands** SLK.
- MAIL is no longer on **any** *CentreVu* CMS menu. *CentreVu* CMS uses error logs (Customer Error Log, Migration Error Log, and Services Error Log) to report failures. *CentreVu* CMS does not use mail at all.
- PASSWORD is a menu selection on the **Commands** SLK.

The *CentreVu* CMS Main Menu items were not available in R2 CMS:

- **Custom Reports >** allows you to create *and* run custom reports.
- **System Setup >** allows you to view windows that display how your CMS was configured during installation. You can also turn data collection on and off, go from multi-user to single-user mode, and more. See the "System Setup" section for a complete list.
- **Logout** logs you out of CMS.
- **;**\_\_\_\_\_ is to run a shortcut. See the "Timetables and Shortcuts" section for additional information on this main menu option.

## Screen-Labeled Keys

The *CentreVu* CMS SLKs never change. In R2 CMS, the SLKs changed depending on your action(s). These actions (like CHANGE) now appear in an Action List on the right-hand side of user windows.

Figure 1-5 shows the *CentreVu* CMS SLKs. Figure 1-6 shows the associated each SLK with its associated menu(s) and submenu(s). The Exit, Scroll, Current, and MainMenu SLKs do not have menus.

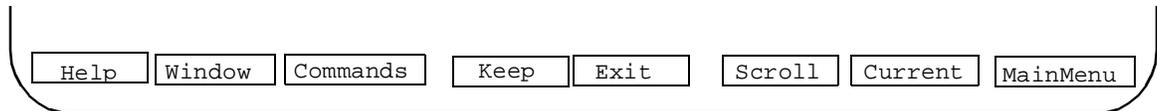


Figure 1-5: *CentreVu* CMS Screen-Labeled Keys

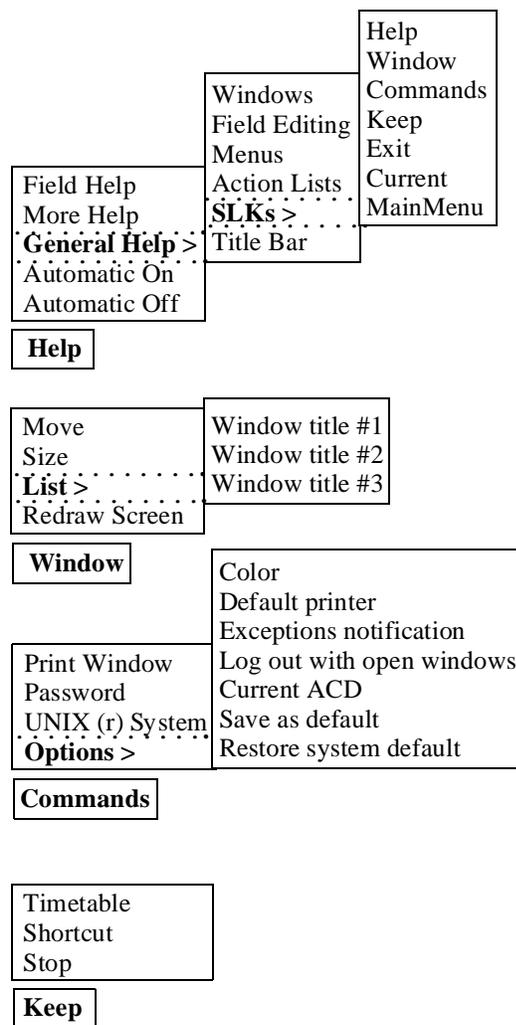


Figure 1-6: SLKs and Their Associated Menus

The following list maps the R2 CMS SLKs to the *CentreVu* CMS SLKs and defines the *CentreVu* CMS SLKs.

- **COMMAND LINE** is not on any SLK. When scheduling anything, select the **Keep** SLK and then the **Timetable** menu item.
- **UPDATE** is not on any SLK. On *CentreVu* CMS, you can set refresh rate for real-time reports to automatically refresh from any report input window.
- **LOGOUT** is now a selection on the *CentreVu* Main Menu.
- **Help** SLK brings up the Help menu that allows access to the basic CMS user information.
- **Window** SLK is used to list, move, and size windows.
- **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 try to log off with open windows.
- **Keep** SLK allows you to create, modify, view, or delete timetables and shortcuts.
- **Exit**
  - With **user windows**, closes the current window and moves to the previously opened window, or if no other windows are open, returns you to the Main Menu.
  - With **menus/submenus**, moves the cursor to the previous menu/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**, then the cursor returns to the previous position in the current open window or to the Main Menu if there are no open windows.
- **Scroll** SLK allows you to page (scroll) through certain user windows.
- **Current** rotates through the open windows.
- **MainMenu** returns you to the CMS Main Menu and leaves the current window open.

## Multi-ACD Related Changes

- Multi-ACD link status is shown on the title bar.
- Change ACDs from the Commands SLK. Select the Options menu item, then Current ACD.
- The current ACD name or number appears in the upper right corner of each window so you will know which windows apply to which ACD.
- You no longer see more than one highlighted menu item when switching back and forth from one type of ACD to another (real ACD to pseudo-ACD and vice versa). In particular, if the current ACD is a real ACD, Exceptions and ACD Administration main menu items are available. If you change to a pseudo-ACD, these menu items are unavailable and grayed out. If you change from the pseudo-ACD back to the real ACD, these menu items are not grayed out and are available.

---

## Set Destination

- When input windows for reports with set destination fields are restored via the Commands: Restore System Default SLK, the size is correct. All fields, including the set destination fields, appear on the input window.
- If you set the report destination to a printer or file and there are no database records found for the criteria in the input window, the report header and an empty box are written as before, but now the status line reads `No records found`.
- If you select a printer that does not exist, the message in the Error Log is now correct.
- The `Printer name:` field is now 14 characters instead of 16 characters. Previously, if you entered a 16-character printer name, the CMS database only accepted 14 characters.

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# Data, Database Items, and Calculations

The following data, database items, and calculations have changed between R2 CMS and *CentreVu* CMS.

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## Data

The real-time and historical databases in *CentreVu* CMS are very different from the R2 CMS databases. This section outlines the main differences in data handling, the capability of agents to log into multiple splits/skills, and the process of multiple split/skills queuing.

The following paragraphs outline the major data changes between R2 CMS and *CentreVu* CMS, including:

- Transferred and Conferenced Calls
- Audio Difficulty
- Abandoned Calls
- Non-ACD Calls
- Direct Agent Calls (Generic 3 with EAS)
- Personal Calls
- Personal Call Tracking (PCT)
- Trunk State and Calling Agent
- Trunk Data
- Trunk Groups
- Adjunct Routing
- AUX Work vs. AUX IN (Generic 2.2 without EAS or System 85)
- Multiple Call Handling (Generic 3 Version 2 and later)
- Call History Table
- Switch Translation Table Corruption
- Vectoring
- Agent States
- Busying Out the Line to CMS
- CentreVu CMS Configuration
- Hold Calls/Agent States.

## New Data Types in the Database Tables

The following items have been added to the *CentreVu* CMS database tables to increase tracking accuracy and to support new switch features.

- Transfers
- Conferences
- Call work codes
- Look Ahead attempts
- Adjunct routed calls
- Personal calls
- Internal versus external outgoing calls
- Outbound ACD calls
- Direct agent calls
- Busy-hour calls.

*CentreVu* CMS has three times as many database items as R2 CMS did. This increase in database items makes more detailed information about the calls handled by your call center available to you. Items have been added to the database to support tracking for new switch features (such as EAS) and to provide some detailed tracking when used with newer switch releases. For example, a Generic 2.2 or Generic 3 switch notifies CMS when agents transfer or conference calls or put them on hold. *CentreVu* CMS tracks these events; R2 CMS did not. This also means that the database tables require more space than they did in R2 CMS.

The database tables have also been restructured in *CentreVu* CMS. For example, the agent login/logout information has its own database table rather than being stored in the agent table, as it was in R2 CMS.

## Call-Based Data Tracking

Most *CentreVu* CMS database items are **call-based**, meaning that the **data for a given call are not recorded until the call and any associated after call work have completed**. In R2 CMS, data were recorded for a call at several points during the call.

In *CentreVu* CMS, average times (like average ACW time, average talktime) are calculated using call-based times and counts (for example, ACDTIME/ACDCALLS for average talktime). This means that an average for an interval is the average time for calls that *ended* in the interval. In R2 CMS, average times were calculated using interval-based times and counts. This meant that it was possible to calculate an average for an interval in which no calls were recorded, resulting in a “divide-by-0” error. There are very few interval-based items in *CentreVu* CMS. *CentreVu* CMS data are recorded only for completed calls, so the data will be consistent.

This change eliminates duplicate database items (call-based and interval-based) and changes the way some items are recorded. For example, R2 CMS had the items **ACDCALLS** (interval-based) and **ANSWERED** (call-based); both items represented the number of answered ACD calls for the split, agent, VDN, etc. In *CentreVu* CMS, there is a single, call-based item, **ACDCALLS**, across all the tables (agent, split, VDN, etc.).

**Note** See the *CentreVu™ CMS R3V4 Upgrades and Migration* (AT&T 585-215-806) document for the R2 and *CentreVu* CMS database mapping references. Also, all *CentreVu* CMS database items and calculations are described in Appendix A, “Database Items and Calculations,” in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

The number of ACD calls shown on a report may be lower in *CentreVu* CMS than in R2 CMS because *CentreVu* CMS does not count the call until it has completed successfully (call-based). Calls that do not complete successfully (for example, due to hardware failures on the trunk) are not recorded as ACD calls in *CentreVu* CMS. **ACDCALLS** in R2 CMS was interval-based and recorded the call when it began, even if it failed later. (Failed calls are recorded in error logs on the *CentreVu* CMS.)

### Data Storage

*CentreVu* CMS stores data differently than R2 CMS. For example, the R2 CMS item **INTERVAL** was a number that represented the interval during the day for which data was collected (1 to 48). In *CentreVu* CMS, interval data are retrieved by the start time of the interval, rather than by an interval number, and the database item **INTRVL** is the number of minutes contained in an interval (15, 30, or 60 minutes).

### Agent States

When the link to the switch comes up, *CentreVu* CMS places all staffed agents in the **OTHER** state, which is considered staffed. These agents accrue staffed time during translations pumpup. In R2 CMS, the agents were put in the **INIT** state, which is not considered staffed, until they changed states or an audit told CMS the agent states. R2 CMS agents accrued less staffed time when the link dropped than *CentreVu* CMS agents do.

In *CentreVu* CMS, agent time staffed is subdivided into two additional states: agent time with ACD calls ringing at the set and agent time doing other work. In R2 CMS, time spent with calls ringing at the set and time spent making or receiving personal calls was collected as available time. In most cases, time spent with a call on hold was tracked as talktime in R2 CMS, whereas that time is tracked as time doing **OTHER** work in *CentreVu* CMS.

**Note** R2 CMS was enhanced to track the time an ACD call rings at an agent's set, but this enhancement only works with appropriate changes to the Generic 2 switch.

Agents using multiple skills are no longer reported in the OTHER state when they log out.

### **ASSIST Button and Event Counts**

In *CentreVu* CMS, ASSISTS and events counts are recorded **only** if the agent is on a call or in call-related after call work. In R2 CMS, an agent could press an event count or ASSIST button at any time and the event was recorded.

### **Extension-In Calls vs. ACD Calls**

In *CentreVu* CMS, if an agent uses call pickup to answer another agent's ACD call, that call is counted as an extension-in call for the answering agent instead of an ACD call, as in most R2 CMS releases. (The call will be recorded as an outflow from the split, in the same way it would be recorded if it had covered to a station.)

### **Vectors**

The number of calls waiting in a vector is more accurate in *CentreVu* CMS than in R2 CMS, because *CentreVu* CMS includes all calls in vector processing as waiting calls, while R2 CMS included only those calls in the vector that were queued to splits.

In *CentreVu* CMS, vector outflows are calls that routed to another destination via the "go to vector" command or via "route to" or "adjunct routing" to a destination other than a split/skill. In R2 CMS, vector outflows were calls routed to internal destinations via a "route to" command. R2 CMS had a separate item to count vector calls that routed to external (off-switch) destinations.

The number of calls that abandoned from a vector may be greater in *CentreVu* than in R2 CMS. This is because *CentreVu* CMS counts calls that abandoned while in vector processing, in split/skill queues and from ringing. R2 CMS counted only those calls that abandoned from split/skill queues.

In the vectoring environment, the percent within service level calculated in *CentreVu* CMS may be lower than in R2 CMS. This is because calls given a forced busy or disconnect by the vector also count against the service level. In R2 CMS, only calls answered, abandoned, and outflowed counted against the service level.

The number of backup calls shown in *CentreVu* CMS may be greater than the number in R2 CMS. Since *CentreVu* CMS counts any calls answered in a split/skill as a result of any vector command other than a “queue to main” command (for example, calls that route to a split or are queued via the “messaging split” command) as backup calls. R2 CMS counted only calls answered in a split as the result of the “check backup” vector command.

## VDNs

The number of calls waiting in a VDN now reflects more accurately the caller’s point of view, because *CentreVu* CMS counts calls in vector processing, in split/skill queues and ringing as VDN calls waiting. R2 CMS counted only those calls in split/skill queues as VDN calls waiting.

In *CentreVu* CMS, VDN outflows are calls that routed to another VDN or to an external (off-switch) destination. In R2 CMS, VDN outflows were any calls routed via the “route to” command.

## Hardware and Software Failures

Calls unsuccessful due to hardware or software failures are no longer included in the calls carried counts for trunk/trunk groups. R2 CMS included these calls in the calls carried counts.

*CentreVu* CMS records calls with short holding times (less than 2 seconds) separately from calls that experienced hardware failures (**SHORTCALLS**). R2 CMS included these short calls in the count of hardware failures.

**SHORTCALLS** is the number of inbound and outbound calls that occupied the trunk for less than 2 seconds and that did not: queue to a split or skill, forward to a split or skill, get answered by an agent, get a forced busy or forced disconnect from the switch, or produce a trunk failure or maintenance busy.

## Agents in Multiple Splits/Skills

*CentreVu* CMS tracks an agent working in multiple splits/skills as a single agent. *CentreVu* CMS requires agents to log into multiple splits/skills using the **same login ID** for all splits/skills. This allows CMS to track the agent as a single person and to coordinate data for that agent. In R2 CMS, agents working in multiple splits were tracked as separate agents, one for each split/skill. This made it difficult to track the agent’s time accurately.

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

In CMS, you can get two views of an agent’s work:

- By viewing the agent's work consolidated across all splits or skills.
- Or, by viewing the agent's work from the perspective of a particular split or skill.

**Note** Summing the split views (I\_TIME items) across splits will **not** match the TI items.

For splits, as long as the agent is not on a call or the agent is in AUX and is available in at least some splits, real-time reports will show all the splits in which the agent is available.

For skills, the agent cannot be available in some skills and in AUX in others. The Skill Status report shows all the agent's login skills.

If an ACD call is ringing the agent's voice terminal, the real-time report will show the RING state. If a personal call is ringing at the agent's voice terminal, the real-time report will show the OTHER state.

No split/skill will be shown for the AUX and UNKNOWN states because these states are not split/skill related. The agent will be shown as being in AUX **only** if the agent is in AUX in **all** splits/skills.

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

### Multiple Split/Skill Queuing

On a Generic 3, calls can be queued to as many as three splits/skills simultaneously. For the first split/skill to which a call is queued (primary split/skill), CMS pegs an answer, outflow (leaves vector processing or is answered by an agent in another split/skill), or abandon. For the second or third split/skill to which a call is queued, CMS pegs an answer and an inflow if the call is answered in that split/skill. If the call is answered in another split, the call outflows, or the caller abandons, CMS pegs a dequeued call for the second and third split/skill.

**Note** If a call rings in a second or third split/skill and then abandons, an inflow and abandon will be counted for that split/skill; an outflow or dequeue will be counted for the other splits/skills.

See Appendix A, "Database Items and Calculations" in the *CMS CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document for more specific information.

### Transferred and Conferenced Calls

- Transferred and conferenced calls are tracked as held calls while the call(s) wait to be transferred or added to a conference.

- When an agent ends a conference call, the agent returns to the call state prior to setting up the conference.
- If an agent is talking, then places the ACD call on hold to transfer that call, and then completes the transfer, the agent then goes to the AVAIL state (Auto-In) or to ACW (Manual-In) following the transfer.
- Transferred or conferenced unmeasured split, trunk group, or VDN calls are now tracked. Prior to PCT, these calls were not tracked.
- *CentreVu* CMS measures ABANDON calls that occur when a call is conferenced.

**Audio Difficulty**

You now get the trunk associated with audio difficulty for personal calls if the trunk group is measured. Prior to PCT, audio difficulty was restricted to ACD calls.

**Abandoned Calls**

VDN calls that route to extensions and are then abandoned are counted as abandoned calls for the VDN.

**Non-ACD Calls**

The first measured split or skill an agent is logged into is used by CMS to track non-ACD calls unless the agent has an ACD call on hold, and the agent is not yet available for other ACD calls. In this case, the call is counted for the split or skill associated with the held ACD call.

**Direct Agent Calls  
(G3 with EAS)**

With the proper class-of-restriction settings, calls to agent login IDs can be tracked as direct agent calls. These calls are queued to a specific agent and are tracked as a special type of ACD call for the agent.

Direct agent calls queue to the agent but use a queue slot in the first primary skill the agent is logged into. CMS tracks the queue time for the direct agent call to the agent and the skill the call queues to, unless that skill is unmeasured.

For more information, see the "Differences and Enhancement Overview" section of this chapter.

**Personal Calls**

The first measured skill a logical agent is logged into (whether primary or secondary) is used by CMS to track non-ACD calls unless the agent has an ACD call on hold, and the agent is not yet available for other ACD calls. In this case, the call is counted for the skill associated with the held ACD call.

**Personal Call  
Tracking (PCT)**

Personal Call Tracking (PCT) offers the following additional data tracking capabilities:

- Data is now available for calls on hold, time for calls on hold, and calls abandoned from hold. Without PCT, time for calls on hold was counted as talktime.
- CMS split and agent data reflects calls made while another call is on hold.
- When an agent places a call on hold, the agent returns to his/her previous state before the call unless the previous state was AVAIL. If the agent was in the AVAIL state, the agent is placed in the OTHER state until the agent dials a valid number (if the number dialed is invalid, the agent remains in OTHER), reconnects with the held call, or the held call abandons. When the agent reconnects to the held call, the original agent state for the call displays.
- Agents do not have a **hold** state. Hold time is associated with a call placed on hold. Agent states reflect the current activity of the agent.
- Hold time (HOLDTIME) is the time the call spent on hold. HOLDCALLS is the number of calls that were placed on hold at least once, and HOLDABNCALLS is the number of calls that abandoned while on hold.
- I\_OTHERTIME is the time during the collection interval that the agent was doing other work.

For Generic 3, this includes time while in the Auto-In or Manual-In mode during which the agent put a call on hold and performed no further action, the agent placed a call or activated a feature, or a personal call rang with no further activity.

- When an agent dials a valid extension, the agent's state changes to AUX OUT (if the agent was in AUX or OTHER) or to ACW OUT (if the agent was in ACW).
- An increase in the number of extension in/out calls made or received by agents, if agents make or receive calls while they have a call on hold.
- Agent time on AUXIN/AUXOUT calls will increase.
- If agents do a lot of conferences and transfers, the average talktime for extension out calls will probably drop, since time spent in AUX for conferences and transfers is very short (a matter of seconds).
- The average talktime on ACD calls will drop if agents put calls on hold, since the time on hold is no longer included as ACD talktime.

For more information, see the "Differences and Enhancement Overview" section of this chapter.

## Trunk State and Calling Agent

The calling agent no longer affects the trunk state. The trunk state will display only the inbound call progress. If an agent makes a call, the trunk state will be SEIZED (not CONN). Also, if the calling agent puts a call on hold or

reconnects to the call, the trunk state will not change. *CentreVu CMS* will continue to track the outbound talktime and hold time, but the state of the trunk will not change.

## Trunk Data

- Trunk data will no longer be marked as incomplete if some trunks are marked as maintenance busy. This means data are still valid for use with the Forecasting Trunk Performance report.
- When you upgrade from R2 CMS to *CentreVu CMS*, it seems that trunk CCS data has *disappeared* during the upgrade. In R2 the CCS calculations (which were based on trunk INTIME and OUTTIME, call-based data items) were wrong. These CCS values must be interval-based to make sense. *CentreVu CMS* software has new, interval-based items that are used to calculate CCS. The calculation used by standard reports to generate the CCS values was changed to use the new items. Therefore, your old data exist under the old data items. The new items were not populated with any data during the upgrade.

## Trunk Groups

- If you change a trunk group's termination point (via switch administration) while trunks in the group are actively carrying calls, the data are now correct. Previously, the data were not stored correctly.
- Trunk group status information (**NUMINUSE** real-time) is now correct for trunks which are audited as busy when the link is coming up.
- Any trunk group data that was migrated from Release 2.0 CMS is not included in any of the forecast tables.

When the trunk CCS calculation was corrected in Issue 1.4 of the CMS software, the data used by the Forecast Trunk Performance report had to be changed to correct the same trunk CCS data problem. Two new trunk group columns (*i\_inocc* and *i\_outocc*) were added to the trunk group tables in Issue 1.4. The migrated data does not contain data for the new columns. Migrated trunk group data will not be put in the new forecast tables.

When the Forecast Manager ran, it would fail when trying to re-collect data, because there was no data in these columns. The Forecast Manager will no longer fail, and you will be able to run the Forecasting Trunk Performance report on new data generated after the Issue 1.3 CMS software.

## Adjunct Routing

When an adjunct routes a call to a split queue or a direct agent queue, you will see an ADJROUTED call for the VDN and vector. In R2 CMS you did not see this.

**AUX Work vs. AUX IN (G2.2 without EAS or System 85 R2V4)**

If an agent puts a call on hold, transfers the call, or conferences the call, the agent is now put in AUX work. Previously, the agent was put in AUX IN. The Agent Trace report will no longer show this transition.

**Multiple Call Handling (MCH) (G3V2 and later switches)**

With the Multiple Call Handling (MCH) feature, the agent state will change to OTHER if the agent does the following:

1. Has a call on hold
2. Then goes available
3. Receives a second call while the first call is on hold
4. Does not answer the second call
5. The second call is then redirected via the Redirection on No Answer feature, because the agent did not answer the call.

**Call History (crec) Table**

The **DURATION** column of the call history or `crec` table now stores data correctly. In R2 CMS, on segments of calls which were transferred, the DURATION was wrong. Now one segment, usually the first, contains the total call time. Each of the segments will contain the valid time length for that segment.

**Switch Translations Table Corruption**

*CentreVu* CMS continues to collect data after switch translations table corruption is detected. When this corruption problem occurs, the *CentreVu* CMS data also becomes corrupted. Messages informing you of the table corruption problem appear in an Acknowledgment window on all active screens. The corruption problems are also logged into the Error Log. These error messages must be addressed to ensure that the corruption problem does not escalate. If the corruption problem is not resolved, table corruption messages will be displayed for the next person that logs in.

**Vectoring**

- *CentreVu* CMS supports the *converse* step in Generic 3 Version 2 and later switch releases.
- *CentreVu* CMS supports the *Return-to-VDN* vector command in DEFINITY Generic 3 Version 3 and later switch releases.

## **Busying Out the Link to CMS**

You can add, delete, or change measured trunks, trunk groups, agent extensions, agent login IDs, VDN extensions, splits, and skills (on a Generic 3 Version 2 and later switches) without busying out the link to CMS and losing CMS data.

CMS tells the switch how many of each facility it can support, and if an agent or the switch administrator attempts to exceed the CMS limits, they are blocked by the switch until the CMS configuration is increased. This means the agent is denied the ability to log in, and the switch administrator is not able to make the change. In order to make the change, you need to put CMS into single-user mode with data collection off, and then increase the storage parameters in the Data Storage Allocation window. When you return CMS to the multi-user mode with data collection on, CMS will renegotiate the CMS configuration parameters with the switch, the agent is allowed to log in, and the switch administrator is allowed to make the change.

## **CentreVu CMS Configuration**

*CentreVu* CMS tells the Generic 3 Version 2 and later switches how many of each facility it can support. If an agent or the switch administrator attempts to exceed the CMS limits, they are blocked (agents cannot log in, switch administrators cannot make the change on the switch) by the switch until the CMS configuration is increased. To make the change:

1. Put CMS in single-user mode with data collection off.
2. Increase the storage parameters in the Data Storage Allocation window.
3. Return CMS to multi-user mode with data collection on.

After CMS renegotiates the CMS configuration parameters with the switch, the agent will be able to log in and the switch administrator will be able to make the change.

## Database Items

Some R2 CMS database items have no direct equivalent in *CentreVu* CMS because the data for those items have been restructured. The information conveyed by the R2 CMS items has been preserved in *CentreVu* CMS, but it is accessed in a different way. For example, R2 CMS had items to track ANSMAN and ANSBACK in the vector table. In *CentreVu* CMS, there are items for ACDCALLS and BACKUPCALLS. The number of calls answered in the vector by the main split can be calculated by subtracting BACKUPCALLS from ACDCALLS.

Also, the R2 CMS database item EVENT, which could have the values ASSIST or MCT, corresponds to the ASSIST and MALICIOUS database items in *CentreVu* CMS.

Many items database items have been renamed in *CentreVu* CMS for consistency, clarity, or accuracy. For example, the R2 CMS item CARRIED in the vector table has been renamed **INCALLS** for *CentreVu* CMS to be consistent with items in other *CentreVu* CMS tables with the same meaning and the name INCALLS.

The paragraphs below list most of the database items that have been added or changed. For a complete mapping of R2 CMS to *CentreVu* CMS database items, see the *CentreVu™ CMS Upgrades and Migrations* (AT&T 585-215-806) document.

### ACDAUXOUTCALLS

Applies to the historical agent tables.

The number of AUXOUTCALLS the agent made with at least one split/skill or direct agent ACD call on hold. This includes calls made to transfer or conference the ACD call. **ACDAUXOUTCALLS** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

### ACDAUXOUTCALLS

Applies to the historical split/skill tables.

The number of AUXOUTCALLS agents in the split/skill made with at least one split/skill ACD call on hold. For agents in multiple splits (Generic 3), the call is counted for the split/skill of the last ACD call the agent put on hold. ACDAUXOUTCALLS includes calls made to transfer or conference the ACD call. **ACDAUXOUTCALLS** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

## ACDONHOLD

Applies to the real-time agent table.

The number of direct agent and split/skill ACD calls on hold at the agent. **ACDNONHOLD** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

System 85 R2V4, Generic 2, and Generic 3 switches.

## ACTIVECALLS

Applies to the real-time VDN table.

Switch-generated count of the number of active calls in the VDN. This includes only incoming trunk calls directly to the VDN. It does not include internal calls to the VDN, transfers to the VDN, or calls that route to the VDN after having been through another VDN.

Available on Generic 3 Version 4 switches.

## ASA

Applies to the real-time split/skill and VDN tables.

Switch-provided rolling average speed of answer for this VDN. This value is sent to CMS whenever it changes on the switch (when a call is answered).

Available on Generic 3 Version 4 switches.

## DA\_INRING

Applies to the real-time split/skill table.

The current number of direct agent ACD calls ringing at an agent in this split/skill. **DA\_INRING** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 3 switches.

## DESTINATION

If you create a custom report using the agent real-time database item **DESTINATION** (values are NULL, PBX, and OFF), it is now possible to see the distinction between agent calls that remain on the switch (PBX) and calls that go outside the switch (OFF). Prior to *CentreVu* CMS these calls appeared to be PBX even if they were OFF.

## EWTHIGH

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at high priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at HIGH priority until being served. Time spent ringing at the agent is not included in this estimate.

Available with Generic 3 Version 4 switches.

**EWTLOW**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at low priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at LOW priority until being served. Time spent ringing at the agent is not included in this estimate.

Available with Generic 3 Version 4 switches.

**EWTMEDIUM**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at medium priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at MEDIUM priority until being served. Time spent ringing at the agent is not included in this estimate.

Available on Generic 3 Version 4 switches.

**EWTTOP**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at TOP priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at TOP priority until being served. Time spent ringing at the agent is not included in this estimate.

Available on Generic 3 Version 4 switches.

**HOLDACDCALLS**

Applies to the historical VDN tables.

The number of split/skill or direct agent ACD calls that were placed on hold at least once. **HOLDACDCALLS** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2, Generic 3, System 85 R2V4 switches.

**HOLDACDTIME**

Applies to the historical VDN tables.

The time spent by split/skill or direct agent ACD callers on hold.

**HOLDACDTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2, Generic 3, System 85 R2V4 switches.

## **HOLDTIME**

Applies to the historical Split/Skill, Agent, and VDN tables.

**HOLDTIME** is not tracked for a VDN call that terminates to an unmeasured agent or extension. The time is tracked as **CONNTALKTIME**. Prior to *CentreVu* CMS when an unmeasured agent put a call on hold, in some cases CMS could not determine if it was the calling agent or the answering agent that put the call on hold, and CMS would make a “best guess.” This “best guess” could be wrong which meant the call was ignored. This no longer happens.

## **I\_ACDAUX\_OUTTIME**

Applies to the historical agent tables.

Time during the collection interval that the agent spent dialing (Generic 2.2) and talking on AUXOUT calls with at least one split/skill or direct agent ACD call on hold. **I\_ACDAUX\_OUTTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

## **I\_ACDAUXINTIME**

Applies to the historical agent tables.

Time during the collection interval that the agent spent talking on AUXIN calls with at least one split/skill or direct agent ACD on hold. **I\_ACDAUXINTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

## **I\_ACDOTHERTIME**

Applies to the historical agent tables.

Time during the collection interval that the agent spent in the OTHER state (dialing an outgoing call [Generic 3], with a ringing personal call [Generic 3], or with calls on hold and with no other state selected) with at least one split/skill or direct agent ACD call on hold. **I\_ACDOTHERTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

## **I\_ACDAUX\_OUTTIME**

Applies to the historical split/skill tables.

Time during the collection interval that the positions spent dialing (Generic 2.2) and talking on AUXOUT calls with at least one split/skill ACD call on hold. **I\_ACDAUX\_OUTTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

## **I\_ACDAUXINTIME**

Applies to the historical split/skill tables.

Time during the collection interval that positions were talking on AUXIN calls with at least one split/skill or direct agent ACD on hold. **I\_ACD AUXINTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

**I\_ACDOTHERTIME** Applies to the historical split/skill tables.

Time during the collection interval the positions spent in the OTHER state (dialing an outgoing call [Generic 3], with a ringing personal call [Generic 3] or with calls on hold and with no other state selected) with at least one split/skill ACD call on hold. **I\_ACDOTHERTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

**INTRVL** **INTERVAL** in has been changed to **INTRVL** in *CentreVu* CMS.

**MOVEPENDING** Applies to the real-time agent table.

Keeps track of a pending move for an agent. This database item can be populated by either the CNRCODE or the NAGLOGON message. When a CNRCODE message is sent to CMS in response to a MVAGSTFD message, if the RCODE for an agent is 45, indicating pending, the corresponding **MOVEPENDING** database item will be set to 1. Upon receiving the NAGLOGON message for this agent, CMS will reset the **MOVEPENDING** bit to the value of the “p” bit in the NAGLOGON message.

Once set, the **MOVEPENDING** database item is cleared for an agent when the conditions that caused the move to pend are resolved and CMS attempts to make the requested change. The database item is cleared whether or not CMS successfully completes the requested change.

Available on Generic 3 Version 4 and later switches.

**ONACDAUXOUT** Applies to the real-time split/skill table.

Current number of **POSITIONS** that are on **AUXOUT** calls with one or more ACD calls on hold for this split/skill. **ONACDAUXOUT** is a subset of **ONAUXOUT**. This item was added to identify the number of agents in a split who currently have an ACD call on hold and are on an outbound extension call.

**PENDINGSPPLIT** Applies to the real-time agent table.

Split/skill to which the agent will be moved. The move is pending until the agent is idle. In the case of a change of up to four skills in one request, **PENDINGSPPLIT** is set to the first new skill for the agent. It is possible for **PENDINGSPPLIT** to be blank or 0, even when **MOVEPENDING** is set. This can happen when the link to the switch comes up and a move is pending for an agent.

Available on Generic 3 Version 4 switches.

## **PHANTOMABNS**

Applies to the real-time agent, split/skill, VDN, and vector tables.

Number of ACD calls with talktime less than the value of the phantom abandoned call timer.

Available on Generic 3 switches.

## **RETURNCALLS**

Applies to the historical VDN tables.

Number of calls that reached this VDN via the VDN return destination feature.

Available on Generic 3 Version 3 switches.

## **TYPE**

Applies to the real-time Agent table.

In an EAS environment, **TYPE** is used to list the skill type (“p” for primary or “s” for secondary) of agent skills when the Find One and List All actions are specified for the ACD Administration: Multi-Agent Skill Change window.

Available on Generic 3 Version switches with EAS.

## **VDISCCALLS**

Applies to the historical VDN and vector tables.

Number of calls forced disconnected because the vector disconnect timer timed out or because the call reached the vector “stop” command without being queued.

Available on Generic 3 Version 2 and later Generic 3 switches.

## Calculations

- The calculation for percent answered (for split calls) has been changed to percentage of calls *offered* that were answered. This makes it possible to compare the percent answered with the percent abandoned. This was not possible in R2 CMS, since in R2 CMS the % Abandoned was the percentage of calls *offered* that abandoned, but the percent answered was the percentage of calls *answered or abandoned* that were answered. The R2 CMS calculation was:

$$\text{ACDCALLS} / (\text{ACDCALLS} + \text{ABANDONS})$$

The calculation is now:

$\text{ACDCALLS} / \text{CALLSOFFERED}$ , where  $\text{CALLSOFFERED}$  includes answered, abandoned, and outflowed calls.

- The **<CALLS\_PER\_POS\_SUM>** calculation is now:
 
$$(\text{sum}(\text{INTRVL} * 60) * \text{sum}(\text{ACDCALLS})) / \text{sum}(\text{I\_STAFFTIME})$$
- The **<PERCENT\_SLVL\_SPL\_SUM>**, calculation has been added. The calculation was added to address the % Within Service Level report column in the Split Status historical report. The calculation definition is:

$$100 * (\text{sum}(\text{ACCEPTABLE}) / \text{sum}(\text{CALLSOFFERED}))$$

- The **<INT\_AUXTIME>** calculation has been added. The calculation is used to display the stafftime in the Historical Reports Split/Skill Report daily report. The calculation definition is:

$$\begin{aligned} & \text{I\_STAFFTIME} - \text{I\_AVAILTIME} - \text{I\_ACDTIME} - \text{I\_ACWTIME} - \\ & \text{I\_OTHERTIME} - \text{I\_RINGTIME} - \text{I\_DA\_ACDTIME} - \\ & \text{I\_DA\_ACWTIME} \end{aligned}$$

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## Real-Time Reports

For additional information on the Real-Time Reports subsystem, please refer to Chapter 3 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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### Menu

Major differences and the cross-reference table for the *CentreVu* CMS real-time reports follow the menus (Figure 1-7).

<b>R2 CMS</b>	<b>CentreVu CMS</b>
<b>REPORTS</b>	<b>Reports &gt;</b>
Standard	<b>Real-time &gt;</b>
[ ] Real-Time	<b>Split/Skill &gt;</b>
[ ] Split Status	<b>Status</b>
[ ] Group Status	<b>Report</b>
[ ] System Status	<b>Call Profile</b>
[ ] Agent/Split Comparison	<b>Agent Report</b>
[ ] Split Summary	<b>Agent Group Report</b>
[ ] Call Profile	<b>Queue/Agent Status</b>
[ ] Trunk Group Summary	<b>Queue/Agent Summary</b>
[ ] Split Performance	<b>Trunk Group Report</b>
[ ] Split Event Count Summary	<b>Event Count Summary</b>
[ ] VDN Status	<b>Multi-ACD Report</b>
[ ] Vector Status	<b>Graph &gt;</b>
[ ] VDN/Trunk Activity Matrix	<b>Split/Skill</b>
[ ] System Status Graph	<b>Queue</b>
[ ] Split Performance Graph	<b>Split/Skill Call Profile</b>
[ ] Split Profile Graph	<b>VDN Call Profile</b>
[ ] VDN Profile Graph	<b>Vector Report</b>
	<b>VDN &gt;</b>
	<b>Report</b>
	<b>Call Profile</b>
	<b>Skill Preference Report</b>

**Figure 1-7: R2 CMS and CentreVu CMS Real-Time Reports Menu**

## Cross-Reference

Table 1-2 lists the standard R2 CMS real-time reports and the closest equivalent report in *CentreVu* CMS. Reports, and individual items within reports, **do not** map exactly between the two releases.

**Table 1-2:**

R2 CMS Report	<i>CentreVu</i> CMS Report
Split Status	Split Report (does not include trunk data)
System Status	Split Report
Group Status	Agent Group Status (for one group only)
Split Summary	Queue/Agent Report (shows the current status)
Agent/Split Comparison	No equivalent. Could create a custom report.
Call Profile	Split Call Profile
Trunk Group Summary	Trunk Group Report
Split Performance	No equivalent. Could create a custom report.
Split Event Count Summary	Event Count Summary
VDN Status	VDN Report
Vector Status	Vector Report (vector data only)
VDN/Trunk Activity Matrix	No equivalent. Could create a Custom Report
System Status Graph	Queue Graph
Split Performance Graph	Split Graph
Split Real-Time Profile Graph	Split Call Profile Graph
VDN Real-Time Profile Graph	VDN Call Profile Graph

## New Reports

The following *CentreVu* CMS historical reports have no equivalent in R2 CMS:

- **Multi-ACD Report** — allows you to access data from multiple ACDs on the same report.
- **Queue/Agent Status report** — combines the Queue/Agent Summary report with the Agent report to show overall split/skill information, such as the number of calls waiting, oldest call, percent answered within service level, and the number of agents available, on ACD calls, staffed, with calls ringing, and on after call work. This report also shows what each agent in the split/skill is doing.
- **VDN Call Profile report** — displays the numbers of answered/connected and abandoned calls to the specified VDN.
- **VDN Skill Preference Report** — displays information about the call handling for the VDN as a whole and lists the number of calls handled by each of the VDN skill preferences.

See the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document for examples of these reports. See the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for examples of the report input windows.

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## General Changes

R2 CMS real-time reports do not map exactly to the *CentreVu* CMS real-time reports. You need to read this section, the “General Changes” section for Historical reports, the cross-reference tables, and see the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document to become familiar with the differences. Some of the general differences are:

- The column headings for *CentreVu* CMS reports have been updated to make them more consistent and easier to understand.
- *CentreVu* CMS report headings and summary lines do not scroll when the reports are displayed on the terminal screen.
- Report titles have been changed for consistency. For example, summary reports generally have one line per entity or time period summarized. Reports without the word *summary* are detail reports. (The *CentreVu* Interval Trunk Group Summary report shows one line of data summarized over the entire trunk group for each interval in the report. The R2 CMS Trunk Group Summary report showed a detail for each trunk in the trunk group for the date given.)
- Most agent reports include data for all splits/skills in which the agent worked during the period covered in the report.
- *CentreVu* CMS has three new agent states and one agent state renamed.
  - **DACD**: The agent is on a direct agent ACD call (Generic 3).
  - **DACW**: The agent is in the after call work state for a direct agent ACD call (Generic 3).
  - **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, is dialing an outbound call, or has a non-ACD call ringing.
  - **UNKNOWN**: Was INIT in R2 CMS.
- All graph reports use Dictionary calculations in *CentreVu* CMS. R2 CMS graph reports used hard-coded calculations. Graph reports can be customized in *CentreVu* CMS.
- With *CentreVu* CMS, agents in multiple splits **must** use the same login for all splits. This allows the agent to be tracked as a single agent. With R2 CMS, agents used different logins.
- With R2 CMS the UPDATE SLK to refreshed reports. In *CentreVu* CMS 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.

## Changes Due to EAS

- On menus and input fields, Split now displays as Split/Skill. Valid minimum and maximum values are determined by switch type and release (for Generic 3 Version 2, skills range from 1 to 255; and on Generic 2.2, skills range from 10 to 609).
- New Skill Status report shows logged-in skills (different from the Split Status report).
- New VDN Skill Preference report shows the call handling for the VDN as a whole and lists the number of calls handled by each of the VDN skill preferences.

# Historical Reports

For additional information on the Historical Reports subsystem, please refer to Chapter 4 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

## Menu

Major differences and the cross-reference table for the *CentreVu* CMS historical reports follow the menus (Figure 1-8).

R2 STANDARD HISTORICAL REPORTS			
Split	Split Event	System	Summary
<input type="checkbox"/> Daily	<input type="checkbox"/> Daily	<input type="checkbox"/> Daily	<input type="checkbox"/> Split
<input type="checkbox"/> Weekly	<input type="checkbox"/> Weekly	<input type="checkbox"/> Weekly	<input type="checkbox"/> Group
<input type="checkbox"/> Monthly	<input type="checkbox"/> Monthly	<input type="checkbox"/> Monthly	<input type="checkbox"/> Trunk Group
Agent	Agent Event	Trunk Group	Daily-Only
<input type="checkbox"/> Daily	<input type="checkbox"/> Daily	<input type="checkbox"/> Daily	<input type="checkbox"/> Login Logout
<input type="checkbox"/> Weekly	<input type="checkbox"/> Weekly	<input type="checkbox"/> Weekly	<input type="checkbox"/> Call Profile
<input type="checkbox"/> Monthly	<input type="checkbox"/> Monthly	<input type="checkbox"/> Monthly	<input type="checkbox"/> Trunk
VDN	Vector		
<input type="checkbox"/> Daily	<input type="checkbox"/> Daily		
<input type="checkbox"/> Weekly	<input type="checkbox"/> Weekly		
<input type="checkbox"/> Monthly	<input type="checkbox"/> Monthly		

<i>CentreVu</i> CMS Historical Reports		
<b>Historical &gt;</b>		
<b>Agent &gt;</b>	<b>System &gt;</b>	<b>VDN &gt;</b>
<b>Summary &gt;</b>	<b>System &gt;</b>	<b>Status</b>
<b>Split/Skill &gt;</b>	<b>Multi-ACD &gt;</b>	<b>Report &gt;</b>
<b>Attendance &gt;</b>	<b>Multi-ACD by Split/Skill &gt;</b>	<b>Skill Preference Report</b>
<b>Group Attendance &gt;</b>	<b>Trunk/Trunk Group &gt;</b>	<b>Call Profile &gt;</b>
<b>Login/Logout</b>	<b>Trunk &gt;</b>	<b>Busy Hour</b>
<b>Trace</b>	<b>Trunk Group &gt;</b>	<b>Multi-ACD Flow &gt;</b>
<b>Event Count &gt;</b>	<b>Trunk Group Summary &gt;</b>	<b>Vector &gt;</b>
<b>Group Summary &gt;</b>	<b>Busy Hour</b>	<b>Call Record</b>
<b>In/Outbound Call &gt;</b>	<b>Graph &gt;</b>	
<b>Split/Skill</b>	<b>Split/Skill Call Profile &gt;</b>	
<b>Status</b>	<b>Split/Skill Service Level &gt;</b>	
<b>Split Skill &gt;</b>	<b>Split/Skill Avg Speed Answer &gt;</b>	
<b>Summary &gt;</b>	<b>VDN Call Profile &gt;</b>	
<b>Call Profile &gt;</b>	<b>VDN Service Level &gt;</b>	
<b>Outbound &gt;</b>	<b>Call Work Code &gt;</b>	
<b>Forecast Summary &gt;</b>		

Figure 1-8: R2 and *CentreVu* CMS Historical Reports Menus

**Cross-Reference**

Table 1-3 maps the standard R2 CMS historical reports to the equivalent report in *CentreVu* CMS. Reports, and individual items within reports, **do not** map exactly between the two releases.

**Table 1-3:**

<b>R2 CMS Report</b>	<b><i>CentreVu</i> CMS Report</b>
Daily Reports	Interval Reports (global change)
Weekly/Monthly Reports	Daily Reports (global change)
Split	Split/Skill Summary
Split Event Count	No equivalent. Could create a Custom Report.
Agent	Agent Summary
Agent Event Count	Agent Event Count
Trunk Group	Trunk Group Summary
System	System
Split Summary	Spit/Skill
Group Summary	Group Summary
Trunk Group Summary	Trunk Group
Login and Logout	Login/Logout
Call Profile	Split/Skill Call Profile
Trunk	Trunk
Vector	Vector
Vector Directory Number	VDN
Split Historical Profile Graph	Split/Skill Call Profile Graph

## New Reports

The following *CentreVu* CMS historical reports have no equivalent in R2 CMS:

- Agent Split/Skill reports
- Agent Attendance reports
- Agent Group Attendance reports
- Agent Trace report
- Agent Inbound/Outbound Call reports
- Split/Skill Status report
- Split/Skill Outbound reports
- Split/Skill Forecast Summary reports
- System Multi-ACD reports
- System Multi-ACD by Split/Skill reports
- Trunk/Trunk Group Busy Hour reports
- Split/Skill Service Level Graph reports
- Split/Skill Average Speed of Answer Graph reports
- VDN Call Profile Graph reports
- VDN Service Level Graph reports
- Call Work Code report
- VDN Status report
- VDN Call Profile report
- VDN Busy Hour report
- VDN Multi-ACD Flow reports
- Call Record report.

See the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document for examples of these reports. See the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for examples of the report input windows.

## General Changes

R2 CMS historical reports do not map exactly to the *CentreVu* CMS historical reports. You need to read this section, the “General Changes” section for real-time reports, the cross-reference tables, and see the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document to become familiar with the differences. Some of the general differences are:

- The column headings for *CentreVu* CMS reports have been updated to make them more consistent and easier to understand.
- *CentreVu* CMS report headings and summary lines do not scroll when the reports are displayed on the terminal screen.
- Report titles have been changed for consistency. For example, summary reports generally have one line per entity or time period summarized. Reports without the word *summary* are detail reports. (The *CentreVu* Interval Trunk Group Summary report shows one line of data summarized over the entire trunk group for each interval in the report. The R2 CMS Trunk Group Summary report showed detail for each trunk in the trunk group for the date given.)
- Most agent reports include data for all splits/skills in which the agent worked during the period covered in the report.
- *CentreVu* CMS has three new agent states and one agent state renamed.
  - **DACD**: The agent is on a direct agent ACD call (Generic 3 only).
  - **DACW**: The agent is in the after call work state for a direct agent ACD call (Generic 3 only).
  - **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, is dialing an outbound call, or has a non-ACD call ringing.
  - **UNKNOWN**: Was INIT in R2 CMS.
- All graph reports use Dictionary calculations in *CentreVu* CMS. R2 CMS graph reports used hard-coded calculations. Graph reports can be customized in *CentreVu* CMS.
- With *CentreVu* CMS, agents in multiple splits **must** use the same login for all splits. This allows the agent to be tracked as a single agent. With R2 CMS, agents used different logins.
- Summary lines for historical reports are at the top of the report.
- *CentreVu* CMS historical reports are available in *interval*, *daily*, *weekly*, and *monthly* versions.

- **Interval** reports contain breakdowns of data by the interval you have defined (15, 30, or 60 minutes).

Interval reports correspond to R2 CMS Daily reports.

- **Daily** reports display summarized interval data, one line for each day, for the day(s) you specify.

Daily reports correspond to R2 CMS Weekly/Monthly reports.

- **Weekly** reports display summarized daily data for the week(s) you specify, one line for each week.

The data for the weekly reports comes from the weekly tables. The weekly tables only contain summarized daily data for complete weeks.

R2 CMS weekly reports display a daily summary for each day in the week (7 different days) to make up a weekly report.

- **Monthly** reports display summarized daily data for the month(s) you specify, one line for each month.

R2 CMS monthly reports displayed a daily summary for each day in the month.

The data for the monthly reports comes from the monthly tables. The monthly tables only contain summarized daily data for complete months.

- Time columns in R2 CMS historical reports (columns showing the amount of time spent on some activity) displayed in minutes and hundredths of minutes (mm.mm). *CentreVu* CMS shows the time columns in minutes and seconds (mm:ss) and hours, minutes, and seconds (hh:mm:ss).
- The *CentreVu* Agent Trace report is in the Historical Reports subsystem. All users now have access to this report. In R2 CMS, the agent trace report was in the CONFIGURATION subsystem.  
You cannot delete agent trace records in *CentreVu* CMS. When the agent trace file is full, the oldest records are overwritten by new records. You should periodically print the Agent Trace report before new records overwrite old records.
- *CentreVu* Historical reports do not appear in 132-column format on the terminal's screen.

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## Changes Due to EAS

- On menus and input fields, Split now displays as Split/Skill. Valid minimum and maximum values are determined by switch type and release.
  - New VDN Skill Preference report.
  - The Agent Login/Logout report shows skills logged into by agents.
- 

## Set Destination Action Item

The `Set dest` action list item has been removed from the action list and the information now appears on the input window for all historical reports ("Historical Reports", "Dictionary", "Exceptions", "ACD Administration", Configuration, and "Forecasting" subsystems).

This change lessens the confusion with Timetable tasks and running a report. Also, you can run up to 100 reports on a Timetable, even if you send the output to different destinations.

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# Timetables and Shortcuts

For additional information on the Timetable and Shortcut Screen-Labeled Keys (SLKs), please refer to Chapter 5 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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## SCHEDULE to Timetable SLK

Timetable on the **Keep**, SLK maps to SCHEDULE in R2 CMS. See Chapter 5, "Timetables and Shortcuts," in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for a complete description and procedures.

R2 CMS	CentreVu CMS
SCHEDULE	<b>Timetable</b>
[ ] Scheduler	<b>Shortcut</b>
[ ] Program Editor	<b>Stop</b>
	<b>Keep</b>

**Figure 1-9: R2 SCHEDULE Menu and CentreVu Keep SLK Menu**

Shortcut is new for *CentreVu* CMS and 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.

After you have created your shortcut, type the name of the shortcut after the semicolon on the Main Menu and press **Return**. The shortcut starts immediately.

Timetable allows you to schedule tasks for completion at a time convenient for you on a timetable.

## General Changes

- Shortcut has been added.
- Data summaries are already scheduled to run on a timetable when you receive your system. You cannot access or change data summary timetables.
- A full and incremental backup have been created on a timetable for you, but neither has been scheduled. You will have to schedule full and incremental backups.
- Timetables that fail to run are logged to the Error Log in the Maintenance subsystem.
- Most *CentreVu* CMS windows can be placed on a timetable. With each window/report description in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document, you are told if the window can be placed on a timetable.
- To print a report multiple times using a timetable, you must enter the task(s) each time on the timetable. With R2 CMS, you had to edit the command line.
- CMS automatically sends your timetable print requests to your default printer unless you specify another printer.
- You do not have to use the *UNIX* system and the *vi* editor with timetable to edit the command line. Use the `Get contents` actions in the Timetable window.
- `Get contents` action item provides a window that lists all the tasks associated with a timetable/shortcut and allows you to enter the task number(s) that you want to copy, delete, global edit, or modify.

You can also add new tasks with `Get contents`. The `Add tasks` action returns you to the CMS Main Menu to add tasks.

The `Keep` SLK `Stop` is still used to stop adding to a timetable/shortcut.

The `Global edit` action allows you to change the date, time, or printer for all tasks on a timetable. `Global edit` is not available for shortcuts.

`Modify` brings up a window for each task to allow you to modify the task. You can modify the input values for the task, the action for the task, or both the input and action. It is not possible to change the ACD associated with a task using `Modify`. It is possible to change the "Current ACD" in Keep mode.

You can also copy specific tasks within the same timetable/shortcut.

- The Timetable List All window shows the status of all timetables.

- The Timetable/Shortcut subsystem has been enhanced and now provides the following:
  - `Get contents` provides a window that lists all the tasks associated with a timetable/shortcut and allows you to enter the task number(s) that you want to copy, delete, global edit, or modify.
  - You can also add new tasks with `Get contents`. The `Add tasks` action returns you to the CMS Main Menu to add tasks.
  - The `Keep` SLK `Stop` is still used to stop adding to a timetable/shortcut.
  - The `Global edit` action allows you to change the date, time, or printer for all tasks on a timetable. `Global edit` is not available for shortcuts.
  - `Modify` brings up a window for each task to allow you to modify the task. You can modify the input values for the task, the action for the task, or both the input and action. It is not possible to change the ACD associated with a task using `Modify`. It is possible to change the “Current ACD” in `Keep` mode.
  - You can also copy specific tasks within the same timetable/shortcut.
- The `Keep` SLK no longer includes `Delete`, `Next`, and `Previous`.
- When scheduling VDN moves, you need to group all VDN moves together on a single timetable or schedule them far enough apart so that one move completes before the next one starts.
- You can now create shortcuts with any report that contains the `Set destination` field. The `Set destination` field must be set to `Terminal` for the shortcut to execute.
- Timetables with more than 33 tasks will now complete all tasks.
- When editing shortcuts, any primary windows with input fields for noncurrent tasks are not visible. This means that input values can be changed only for the task currently being edited. However, shortcut windows without input fields for noncurrent tasks can be moved and sized.
- A task can now be specified only once in the `Task number(s)` field.

- To add new tasks to the beginning of a Timetable or Shortcut, leave the `Task number(s)` field blank and the task will be added before task number 1. Also, if you have a timetable with zero (0) tasks and you want to add tasks, leave the `Task number(s)` blank. Field help also describes this action.
- Setting user defaults no longer causes timetables to fail.
- The `starting` message window is now removed immediately if a task cannot be started when trying to add it to a timetable or shortcut.
- You are now warned that a shortcut will not run for a task that produces a `Acknowledgment` window when doing an `Add` or `Edit`.
- The correct ACD is now displayed when you run timetables or shortcuts with multiple tasks, and each task has a different ACD.
- You should always create a multi-ACD timetable or shortcut by entering the `Keep` mode from your default login ACD and then changing ACDs from your default login ACD. If you create a timetable or shortcut from an ACD other than your default login ACD before entering the `Keep` mode, the menus will be for the wrong ACD.

You may want to consider creating separate timetables or shortcuts for each ACD.

- Timetables and shortcuts no longer reset the ACD to the user's login ACD when entering the `Keep` mode.
- A `Current ACD` column has been added to the `Timetable: Get Contents` window.

What is displayed in the `Current ACD` field will always be the current ACD active at the time the tasks are stored. For some tasks (for example, those that are for all ACDs or those that have an ACD input field), this field may or may not be used by the task.

- The `List all` and the `Find one` actions correctly restrict searches while in `Timetable Keep` mode.

Previously, when you created a timetable and added or deleted tasks, the CMS database was not limiting searches to the data in the input window. For example, if you created a timetable, added the task to retrieve `User Permissions: Split/Skill Access`, then performed a `List all` (asking the system to list all of the `Split/Skill Access` matches to the values on the input window), CMS would list all of the `Split/Skill Access` information, not just the ones that matched the information on the input field.

---

# Dictionary

For additional information on the Dictionary subsystem, please refer to Chapter 6 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Menu

R2 CMS DICTIONARY maps to *CentreVu* CMS **Dictionary >** (Figure 1-10).

<u>R2 CMS</u>	<u>CentreVu CMS</u>
DICTIONARY	<b>Dictionary &gt;</b>
[ ] Login-Identification	<b>Login Identification</b>
[ ] Agent Groups	<b>Agent Groups</b>
[ ] Extension-Groups	<b>Calculations</b>
[ ] Calculations	<b>Constants</b>
[ ] Constants	<b>Database Items &gt;</b>
[ ] Database-Items	<b>Agent String Values</b>
[ ] Split-Synonyms	<b>Split/Skill String Values</b>
[ ] Trunk-Group-Synonyms	<b>Trunk String Values</b>
[ ] VDN-Synonyms	<b>Standard CMS Items</b>
[ ] Vector-Synonyms	<b>Custom Items</b>
	<b>ACDs</b>
	<b>Splits/Skills</b>
	<b>Trunk Groups</b>
	<b>Global Search</b>
	<b>Report</b>
	<b>Call Work Codes</b>
	<b>VDNs</b>
	<b>Vectors</b>

**Figure 1-10: R2 and CentreVu CMS Dictionary Menus**

## Cross-Reference

Table 1-4 maps the standard R2 CMS Dictionary menu item to the equivalent menu item in *CentreVu* CMS. Dictionary items **do not** map exactly between the two releases.

**Table 1-4:**

<b>R2 CMS</b>	<b><i>CentreVu</i> CMS</b>
Login-Identification	Login Identification
Agent Groups	Agent Groups
Extension-Groups	None
Calculations	Calculations
Constants	Constants
Database-Items	Database Items
Split-Synonyms	Splits/Skills
Trunk-Group-Synonyms	Trunk Groups
VDN-Synonyms	VDNs
Vector-Synonyms	Vectors

---

## New Menu Items

The following *CentreVu* CMS Dictionary menu items have no equivalent in R2 CMS:

- **ACDs** — allows you to assign names to real or pseudo-ACDs.
- **Global Search** — allows you to search the entire Dictionary.
- **Report** — creates reports on any part of the Dictionary.
- **Call Work Codes** — allows you to add, delete, modify, or view call work codes.

---

## General Changes

- *CentreVu* CMS uses the word **name** instead of the word **synonym**.
- Extension Groups do not exist on *CentreVu* CMS.
- You can assign names to ACDs (real and pseudo) and call work codes in *CentreVu* CMS.
- *CentreVu* CMS Dictionary subsystem allows searching for patterns in all fields (names, numbers, and descriptions) and in all sections of the Dictionary using the “Global Search” window.
- You can get a listing of all your split/skill, trunk group, call work code, VDN, vector, agent group names and login IDs at any time with the `List all` action list selection.
- You can change the descriptive words that appear on reports dealing with agents (for example, AVAIL, ACD, IN, OUT, PHONE, etc.) to meet your call center’s needs.
- You can change the descriptive words that appear on the Split/Skill Call Profile reports to meet your call center’s needs.
- You can change the descriptive words that you see on trunk reports (for example, IDLE, HOLD, LOW, IN, YES, etc.) to meet your call center’s needs.
- You can 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.
- **Calculations and Constants**
  - Calculations can now have the “unique” keyword inside the calculation.
  - Calculation names and constant names can no longer contain embedded blanks. All other Dictionary names can still contain embedded blanks.
- **Agent Groups Window**

When adding a range of agent login IDs in the Agent Groups window, an Acknowledgment window is displayed if one or more of the logins in the range already exists. The Acknowledgment window displays how many IDs already existed and how many were added.
- **Global Search Window**

You can now use \* (asterisk) or a blank in the Global Search window to match all entries.

## Changes Due to EAS

- Split/Skill names.
- Assign names to skills so skill names appear on CMS reports.
- Split/Skill string values.
- Change the descriptive words that appear on the Skill Call Profile reports. The *words* are used to describe the value of the data.

---

# Exceptions

For additional information on the Exceptions subsystem, please refer to Chapter 7 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Menu

R2 CMS EXCEPTIONS map to **Exceptions >** in *CentreVu CMS* (Figure 1-11).

R2 CMS	<i>CentreVu CMS</i>
EXCEPTIONS	<b>Exceptions &gt;</b>
	<b>Real-time Exceptions Log</b>
	<b>Historical Reports &gt;</b>
Reports	<b>Agent Exceptions</b>
[ ] Splits	<b>Split/Skill Exceptions</b>
[ ] Trunk-Groups	<b>Trunk Group Exceptions</b>
[ ] Vectors	<b>Vector Exceptions</b>
	<b>VDN Exceptions</b>
Administration	<b>Other Exceptions &gt;</b>
[ ] Splits	<b>Malicious Call Trace</b>
[ ] Trunk-Groups	<b>Data Collection</b>
[ ] Vectors	<b>Administration &gt;</b>
	<b>Agent Exceptions</b>
	<b>Split/Skill Exceptions</b>
	<b>Trunk Group Exceptions</b>
	<b>Vector Exceptions</b>
	<b>VDN Exceptions</b>

**Figure 1-11: R2 and *CentreVu CMS* Exception Menus**

## Cross-Reference

Table 1-5 maps the standard R2 CMS Exceptions menu item to the equivalent menu item in *CentreVu* CMS. Exceptions items **do not** map exactly between the two releases.

**Table 1-5:**

<b>R2 CMS</b>	<b><i>CentreVu</i> CMS</b>
Split report	Split/Skill Exceptions historical report
Trunk-Groups report	Trunk Group Exceptions historical report
Vectors report	Vector Exceptions historical report
Splits administration	Split/Skill Exceptions administration
Trunk-Groups administration	Trunk Group Exceptions administration
Vectors administration	Vector Exceptions administration

---

## New Menu Items

The following *CentreVu* CMS Exceptions menu items have no equivalent in R2 CMS:

- **Agent Exceptions historical report**
- **VDN Exceptions historical report**
- **Malicious Call Trace historical report**
- **Data Collection historical report**
- **Agent Exceptions administration**
- **VDN Exceptions administration**

---

## General Changes

- In *CentreVu* CMS, when the occurrences of an exception **exceed** the threshold, you are notified of an exception. This is different from R2 CMS. In R2 CMS, when the occurrences of an exception met the threshold, you were notified of an exception.
- The text of reported exceptions in *CentreVu* CMS includes the Dictionary names for agents, splits/skills, trunk groups, VDNs, and vectors, instead of the numbers which R2 CMS used.
- In *CentreVu* CMS, exception permissions are turned on/off based on User ID. In R2 CMS, exceptions permissions were tied to read permission for a split, trunk group, etc.
- Exception alerting (screen flash/beep) is basically the same.
- In the title bar, the `Ex` field shows a running count of current exceptions. The count resets to zero when a new intrahour interval starts.
- In *CentreVu* CMS, exceptions are stored in the Real-Time Exceptions Log. Exceptions do not pop up at the bottom of your screen as they did in R2 CMS.
- You have more agent, split/skill, trunk group, vector, and VDN exceptions to choose from.
- By default in *CentreVu* CMS, most exceptions are turned off. However, exceptions checking for the following events are **always turned on** and **cannot** be turned off in *CentreVu* CMS.
  - Malicious call traces (Generic 2 and Generic 3r only)
  - Data collection disruptions (for example, link down)
  - Agent login attempts that are not permitted.
- Agent exceptions now track when:
  - An agent enters an invalid call work code (CWC).
  - An agent could not be logged into a skill.
- Two new agent exceptions have been added:
  - Agent logged out with calls active/held (can be administered in the Agent Exceptions Administration window)
  - Agent denied login to some skills (is always enabled and does **not** appear on the administration window).

Neither exception has a threshold count associated with it. Both exception conditions may appear in the Agent Exceptions report, and you can generate the report to include or exclude either exception.

- The Agent Exceptions for time in state can occur multiple times during an interval. The threshold counter is no longer cleared at the start of each data collection interval. Instead, it is cleared when the agent state causing the exception changes or when the agent logs off. This applies to the following exceptions:
  - Time available
  - Time on inbound ACD call (min)
  - Time on inbound ACD call (max)
  - Time in after call work
  - Time on inbound ACW call
  - Time on outbound ACW call
  - Time in AUX work
  - Time on inbound AUX call
  - Time on outbound AUX call
  - Time on outbound ACD call (min)
  - Time on outbound ACD call (max)
  - Time ACD call spent on hold
  - Time ACD call spends ringing
  - Time on direct agent call
  - Time call waited in direct agent queue
  - Time on external outbound ACW call
  - Time on external outbound AUX call.
- VDN Exceptions now track Rolling Average Speed of Answer (ASA).

The switch now sends the rolling ASA to *CentreVu* CMS via the ASA message. When CMS receives, for a VDN, and ASA from the switch that exceeds the time limit specified in the VDN Exception Administration, an occurrence is pegged. The Rolling ASA is triggered once per interval and cleared at the end of each interval.
- Redirect on No Answer — A new exception for the Redirection on No Answer feature that indicates an agent has been put into the AUX work mode automatically because the agent did not answer an ACD call that was ringing at the agent's station, and the switch attempted to requeue the call automatically to a split/skill. This exception applies only to the Generic 3 Version 2 switch.

- Split/Skill Exceptions now track:
  - Rolling Average Speed of Answer (ASA).

The value in the `Average speed of answer (seconds)` exception field was calculated internally to CMS. This remains the same. However, the switch now sends the rolling ASA to *CentreVu* CMS via the ASA message. When CMS receives, for a split/skill, an ASA from the switch that exceeds the time limit specified in the Split/Skill Exception Administration, an occurrence is pegged. The Rolling ASA is triggered once per interval and cleared at the end of each interval.
  - Expected Wait Time (EWT).

These exceptions can be administered, even if you do not have the applicable features.

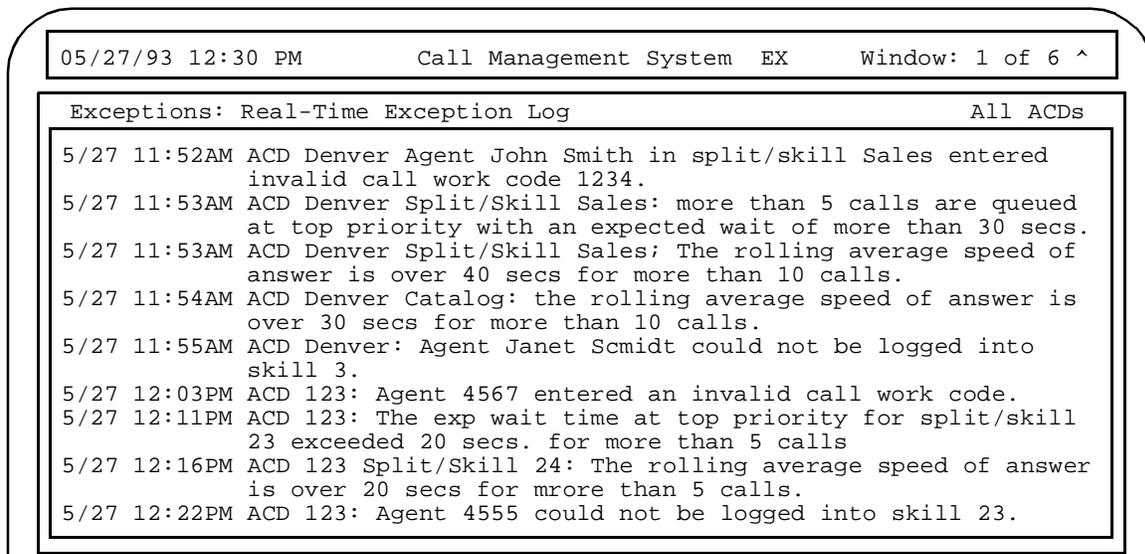
EWT exceptions are triggered once per interval when the time limit exceeds the administered threshold, and is cleared at the end of each interval.
- In the past, certain timing exceptions were triggered incorrectly, either too often or not often enough. For example, a talktime exception could be triggered every time an agent reconnected to a held call, instead of just once for a given call. Such problems have now been fixed. You should see the following:
  - Exceptions that were pegged too frequently in the past (like time on hold and ringtime exceptions when calls are transferred using unmeasured trunks) will now be pegged appropriately.
  - Exceptions that were pegged too infrequently in the past (like time on AUXOUT call, agent and split time in queue, and VDN time at agent) will now be pegged appropriately. You may see these exceptions pegging more often. Monitoring some exceptions, for example, agent and split time in queue, may affect the performance of your system.
  - Exceptions will no longer apply to several different types of calls. For example, time on hold now applies to ACD calls only. Previously, this count included ACD calls and extension calls.
  - Previously, with *Agent talktime exceptions*, if an agent was talking on an ACD call and put a call on hold, the call was pegged as an exception if the agent did not talk for the minimum amount of time. This no longer occurs.

## Changes Due to EAS

- Split exceptions are now Split/Skill exceptions.
- 

## Real-Time Exceptions Log

- The Exceptions Count, exceptions alerting, and entries in the Exceptions Log are for all ACDs for which the user has exceptions permissions.
- The Exceptions Log now specifies the ACD where the exception occurred.
- The additions to Agent, Split/Skill and VDN exceptions administration result in additional entries to the Real-Time Exceptions Log. Figure 1-12 shows an example of each possible new entry.



**Figure 1-12: Real-Time Exceptions Log**

# ACD Administration

For additional information on the ACD Administration subsystem, please refer to Chapter 8 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

## Menu

R2 CMS CONFIGURATION maps to **ACD Administration >** in *CentreVu* CMS (Figure 1-13).

R2 CMS	<i>CentreVu</i> CMS
CONFIGURATION	<b>ACD Administration &gt;</b>
	<b>Move Agent Extensions Between Splits</b>
	<b>Move Agent Extensions</b>
Split	<b>Change Agent Skills (G3V2 EAS)</b>
<input type="checkbox"/> Extension-Assignments	<b>Trunk Group Assignments</b>
<input type="checkbox"/> Trunk-Group-Assignments	<b>Split Parameters (No Vectoring/EAS)</b>
<input type="checkbox"/> Parameter-Administration	<b>Split/Skill Call Profile Setup</b>
<input type="checkbox"/> Call-Profile-Administration	<b>Activate Agent Trace</b>
	<b>List Agents Traced</b>
Vector	<b>Configuration Reports &gt;</b>
<input type="checkbox"/> Trunk-Group Assignments	<b>Split Members (No G3V2 EAS)</b>
<input type="checkbox"/> Directory-Number Assignments	<b>Trunk Group Members</b>
<input type="checkbox"/> Specifications	<b>Vector</b>
<input type="checkbox"/> Split-References	<b>Call Work Codes</b>
	<b>VDN-to-Vector Assignments</b>
<input type="checkbox"/> Agent Trace	<b>Change VDN Skill Preferences</b>
	<b>VDN Call Profile Setup</b>
	<b>Vector Contents</b>
	<b>Split References in Vectors (No EAS)</b>
	<b>Multi-Agent Skill Change</b>

**Figure 1-13: R2 CONFIGURATION Menu and *CentreVu* ACD Administration Menu**

## Cross-Reference

Table 1-6 maps the standard R2 CMS ACD Administration menu item to the equivalent menu item in *CentreVu* CMS. ACD Administration items **do not** map exactly between the two releases.

**Table 1-6:**

<b>R2 CMS</b>	<b><i>CentreVu</i> CMS</b>
Split Extension-Assignments	Move Agent Exceptions
Split Trunk-Group-Assignments	Trunk Group Assignments
Split Parameter-Administration	Split Parameters (no vectoring or EAS)
Split Call-Profile-Administration	Split/Skill Call Profile Setup
Vector Trunk-Group Assignments	Trunk Group Assignments
Vector Directory-Number Assignments	None
Vector Specifications	Vector Contents
Vector Split-References	Split References in Vectors (non-EAS)
Agent Trace	Activate Agent Trace

---

## New Menu Items

New additions to *CentreVu* CMS ACD Administration subsystem are:

- **Move Agent Extensions Between Splits**
- **Configuration Reports** for Split Members, Trunk Group Members, and Vectors
- **Call Work Code Administration**
- **VDN Call Profile Setup**
- **VDN-to-Vector Assignments**
- **List Agents Traced**
- **Change VDN Skill Preferences**
- **Change Agent Skills**
- **Multi-Agent Skill Change** (Generic 3 Version 4, and later, with EAS) — allows you to change a skill for one or more agents.

## General Changes

- R2 CMS Split Extension Assignments maps to the **Move Agent Extensions** window on *CentreVu* CMS.
- R2 CMS Split/Vector Trunk Group Assignments maps to the **Trunk Group Assignments** window (depending on your switch).
- R2 CMS Split Parameter-Administration maps to the **Split Parameters** window on *CentreVu* CMS.
- R2 CMS Split Call Profile-Administration maps to **Split/Skill Call Profile Setup** on *CentreVu* CMS.
- R2 CMS Vector Directory-Number-Assignments map to **VDN Assignments** on *CentreVu* CMS.
- R2 CMS Vector Specification maps to **Vector Contents** on *CentreVu* CMS.
- R2 CMS Split References map to **Split References in Vector** on *CentreVu* CMS.
- Agent Trace is different on *CentreVu* CMS. In the **Activate Agent Trace** window, you turn on or off an agent trace for one or more agents. The agent trace report is in the Reports subsystem in *CentreVu* CMS.  

You cannot delete agent trace records in *CentreVu* CMS. When the agent trace file is full, the oldest records are overwritten by new records. If you want certain agent trace information on a particular agent, you should periodically print the Agent Trace report before new records overwrite old records.
- The default for split/skill and VDN call profile intervals and service level is "0" in *CentreVu* CMS. On *CentreVu* CMS, you are allowed to set your intervals to different lengths (for example, 15, 20, 35). R2 CMS had defaults of 10 seconds for profile intervals and 30 seconds for service level. If you set your split call profile values on R2 CMS, these values migrate to *CentreVu* CMS. If you were using the R2 CMS default values, you had to enter values in the Split/Skill Call Profile Setup window.
- To intraflow calls in R2 CMS you needed access permission for the split receiving the calls. This is no longer necessary on *CentreVu* CMS.

## Changes Due to EAS

From CMS, you can do the following at any time:

- **VDN Skill Preferences**

Change VDN skill preferences is a new menu item.

*Generic 2.2 Switch* — When the VDN skill preferences are changed, the new skill preferences take effect for the new calls to the VDN. Any calls currently in progress in the VDN at the time the change is made are processed with the *old* VDN skill preferences.

*Generic 3 Version 2 and Later Switches* — When the VDN skill preferences are changed, the change takes effect immediately and can affect the processing of any calls currently in the VDN.

- **Change Agent Skills** (Generic 3 Version 2)

Add, change or delete agent skills using the Change Agent Skills window. Agent must log out and then back in for changes to take effect. Agent login IDs must be one to five digits in length. An agent can have up to four skills and each skill is assigned a type, either primary or secondary.

- **Vector Contents** window

You can create, modify, or delete skill vectors.

- The “#” is now allowed in a “route to” number and “goto” step with a digit equals clause. If “#” is entered, it must be the first and only character. The “#” is valid for Generic 3 Version 2 switch as a special custom development and will be generally available on all Generic 3 switches after Version 2.
- You can now specify a skill number with the “oldest call waiting” condition.
- If you enter an invalid value for a vector step, an error message will appear. If you want to erase the entire vector with **Ctrl** **Z**, the error message will disappear, the steps in the vector will disappear, and the cursor will move to the first field of the next step.

- **Move Agent Extensions** (Generic 2.2 with EAS only).

This window allows you to move agent extensions between skill tens groups. It also allows you to get a list of the extensions assigned to a particular skill group. Valid entries in the `Skill group` field must be a positive integer ending in “0” representing a skill group number. The skill group 0 can be entered to list extensions assigned to skill 0, where they are measured, but are not members of any skill group. Extensions must be up to five digits.

- **Vector Configuration** report

Contains VDN skill information and is called Vector Configuration with Skills on the report.

- **Move Extensions Between Splits (G3V4 non-EAS)**

The Move Extensions Between Splits menu item has been updated for *CentreVu* CMSs that are connected to Generic 3 Version 4 switches without EAS. It now allows up to 32 agent extensions to be moved between splits *without* requiring the agents to log off. This command can still be used to move unstaffed agents.

- Vector steps are now shown in abbreviated (packed) format, regardless of the type of switch the *CentreVu* CMS is connected to.

- **Move Agent Extensions Between Splits**

Prior to *CentreVu* CMS you could assign extensions to more than four splits, but the agent could not log into four splits because CMS checked the extension assignments and not the split. This problem no longer occurs. You can now assign extensions to more than four splits, and CMS will also check the splits the agent is logged into, and the agent will be able to log into multiple splits (up to three or four depending on your switch release).

- **VDN Call Profile**

You get a warning if the number of VDNs entered in the VDNs field in the VDN Call Profile window exceeds the number of measured VDNs administered in System Setup: Data Storage Allocation.

- **Vector Commands**

The following vector commands have been changed from the split usage to skill usage with EAS. These commands can queue to a specific skill, or can reference a VDN skill preference, or can check the conditions in the skill:

- check backup skill
- go to step
- go to vector
- messaging skill
- queue to main skill.

---

## User Permissions

For additional information on the User Permissions subsystem, please refer to Chapter 9 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Menu

R2 CMS ADMINISTRATION maps to **User Permissions >** in *CentreVu* CMS (Figure 1-14).

R2 CMS	<i>CentreVu</i> CMS
ADMINISTRATION	<b>User Permissions &gt;</b>
[ ] System Access	<b>User Data</b>
[ ] Split Access	<b>Feature Access</b>
[ ] Trunk-Group Access	<b>Main Menu Addition Access</b>
[ ] Vector-Access	<b>Split/Skill Access</b>
	<b>Trunk Group Access</b>
	<b>ACD Access</b>
	<b>Vector Access</b>
	<b>VDN Access</b>

**Figure 1-14: R2 CMS ADMINISTRATION and *CentreVu* CMS User Permissions Menus**

## Cross-Reference

Table 1-7 maps the standard R2 CMS User Permissions menu item to the equivalent menu item in *CentreVu* CMS. User Permissions items **do not** map exactly between the two releases.

**Table 1-7:**

<b>R2 CMS</b>	<b><i>CentreVu</i> CMS</b>
System Access	Feature Access
Split Access	Split/Skill Access
Trunk-Group Access	Trunk Group Access
Vector-Access	Vector Access

## New Menu Items

The following *CentreVu* CMS User Permissions menu items have no equivalent in R2 CMS:

- **Main Menu Addition Access** — Allows you to assign, view, modify, or delete a CMS user's access permissions to additional Main Menu items.
- **ACD Access** — Allows you to assign, view, modify, or delete a user's access to real or pseudo ACDs.
- **VDN Access** — Allows you to assign, view, modify, or delete a CMS user's access permissions to specific VDNs.

## General Changes

- R2 CMS System Access maps to the **User Data** and **Feature Access** windows in the User Permissions subsystem.
- R2 CMS Split Access maps to **Split/Skill Access** in *CentreVu* CMS.
- R2 CMS Trunk Group Access maps to **Trunk Group Access** in *CentreVu* CMS.
- R2 CMS Vector Access maps to **Vector Access** in *CentreVu* CMS.
- *Remove Existing Password* and *Add/Change Password On Next Login* do not exist on any window in *CentreVu* CMS.
- You also turn on or off the exception alerting (beep/flash) from the Split/Skill Access, Trunk Group Access, ACD Access, VDN Access, or Vector Access windows.
- Default access is no (except ACD access).

- **ACD Access Window**

You can set up permissions for each user for each ACD (specific permissions on the ACD). Also, you can set up permissions (give the user permission to an entire ACD) by each ACD.

If a CMS user has read permission only to the User Permissions subsystem, the `Next` and `Previous` action list items will now appear as valid actions on the ACD Access window.

- **User Data Window**

If you change a CMS user from Normal to Administrator or vice versa in the User Data window, you need to manually change the feature access permissions for that user. The Feature Access window is not automatically updated, and it will display the original permissions assigned to the user.

The User Data window now accepts capital letters in the `Login ID` field.

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## Changes Due to EAS

Grant skill access from the Split/Skill Access window.

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# System Setup

For additional information on the System Setup subsystem, please refer to Chapter 10 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Menu

R2 CMS MAINTENANCE maps to either the *CentreVu* CMS **System Setup >** subsystem or the **Maintenance >** subsystem (Figure 1-15).

R2 CMS	<i>CentreVu</i> CMS
MAINTENANCE	<b>System Setup &gt;</b>
	<b>Switch Setup</b>
[ ] Backup-Data	<b>Pseudo-ACD Setup</b>
[ ] Restore-Data	<b>Load Pseudo-ACD Data</b>
	<b>Data Storage Allocation</b>
[ ] Archive-Parameters	<b>Free Space Allocation</b>
[ ] Daily-Data-Archive	<b>Store Intervals</b>
	<b>Agent Trace Record Contents</b>
[ ] Session-Status	<b>Main Menu Addition</b>
	<b>CMS State</b>
[ ] Error-Log	<b>Data Collection</b>
	<b>Data Summarizing</b>
[ ] Forecast Manager	<b>R3 Migrate Data</b>
	<b>R2 Migrate Data</b>
	<b>Maintenance &gt;</b>
	<b>Back Up Data</b>
	<b>Restore Data</b>
	<b>Backup/Restore Devices</b>
	<b>Printer Administration</b>
	<b>Connection Status</b>
	<b>ACD Status</b>
	<b>Archiving Status</b>
	<b>Error Log Report</b>

**Figure 1-15: R2 CMS MAINTENANCE to *CentreVu* CMS System Setup and Maintenance Menus**

## Cross-Reference

Table 1-8 maps the standard R2 CMS MAINTENANCE menu item to the equivalent menu item in *CentreVu* CMS. MAINTENANCE items **do not** map exactly between the two releases.

**Table 1-8:**

<b>R2 CMS</b>	<b><i>CentreVu</i> CMS</b>
Backup-Data	Back Up Data (Maintenance)
Restore-Data	Restore Data (Maintenance)
Archive-Parameters	Data Storage Allocation (System Setup)
Daily-Data-Archive	Storage Intervals (System Setup) Data Summarizing (System Setup)
Session-Status	Switch Setup (System Setup) Archiving Status (Maintenance)
Error-Log	Error Log (Maintenance)
Forecast Manager	Forecast Manager (Forecast)

---

## New Menu Items

The following *CentreVu* CMS System Setup menu items have no equivalent in R2 CMS:

- **Free Space Allocation** window in the **System Setup >** subsystem. This window lists the number of administered splits, agents, trunk groups, exceptions, etc., as set up during installation. This window allows you to identify and specify where you would like to store specific CMS files.
- **Pseudo-ACD Setup** and **Load Pseudo-ACD Data** in the **System Setup >** subsystem allow you to create an area on your CMS for a model ACD (Pseudo-ACD). One use for a pseudo-ACD is running historical multi-ACD reports.
- **Agent Trace Record Contents** in the **System Setup >** subsystem allows you to specify what agent data and how much agent data to collect for later use in the Agent Trace historical report.
- **Main Menu Addition** in the **System Setup >** subsystem allows you to add up to eight additional items to the CMS Main Menu.
- **CMS State** in the **System Setup >** subsystem allows you to take CMS from single-user to multi-user mode and vice versa.

- **R2 CMS Migrate Data** window in the **System Setup >** subsystem will be used when you are ready to migrate R2 CMS data to *CentreVu* CMS. See the *CentreVu™ CMS R3V4 Migration and Updates* (AT&T 585-215-806) document for all the procedures and information.

## General Changes

- R2 CMS Archive Parameters maps to **Data Storage Allocation** in the **System Setup** subsystem. CMS can store data as follows:
  - Intrahour Storage up to 62 days.
  - Daily Storage up to 5 years (1825 days, 260 weeks, or 60 months).
  - Weekly/Monthly Storage up to 10 years (3650 days, 520 weeks, or 120 months).
  - Exception data up to 2000 records for each type of exception.
- R2 CMS Daily Data Archive maps to:
  - **Storage Intervals** in the **System Setup >** subsystem. *CentreVu* CMS uses the entries in this window to automatically archive your data. Intrahour intervals in *CentreVu* CMS can be 15, 30, or 60 minutes. The Storage Intervals window is also used to select the days of the week that your call center is in operation and CMS is actively collecting data.
  - **Data Summarizing** in the **System Setup >** subsystem will do archiving on demand and should only be used if the previous archive did not work.

**Note**

In R2 CMS with Daily Data Archive, you could enter a date of “-4” and R2 CMS would summarize data from four days ago through today. In *CentreVu* CMS if you enter “-4”, data is summarized for just one day that occurred four days ago.

- R2 CMS Error Log maps to **Error Log Report** in the **Maintenance >** subsystem. The Error Log Report only logs errors that you can correct. This log also includes entries that were previously placed in R2 MAIL.
- R2 CMS Forecast Manager maps to **Forecast Manager** in the **Forecasting >** subsystem.

- R2 CMS Session Status maps to:
  - **Switch Setup** window in **System Setup >** and gives the switch name, switch release, CMS administrable switch features (for example, Vectoring).
  - **Archiving Status** window in the **Maintenance >** subsystem and gives the type of archives (interval, daily, weekly, and monthly), status (success, failure, not run, running), the date, and time.
  - **Data Storage Allocation** in the **System Setup >** subsystem. This window also allows you to enter the number of splits/skills, agent logins, trunk groups, trunks, call work codes, vectors, and VDNs for which you want space allocated.
  - **Connection Status** window in the **Maintenance >** subsystem and allows you to monitor the data link between the CMS processor and the switch.
  - **Data Collection** window in the **System Setup >** subsystems and turns data collection on or off.
  - **ACD Status** in the **Maintenance >** subsystem and displays information about the current ACD.

- **Data Storage Allocation**

With *CentreVu* CMS, the numbers in the `Number of Agent login/logout records` field on the **Data Storage Allocation** window is the number of records you want to store, not the number of days as in the R2 CMS.

- **Main Menu Addition**

CMS no longer allows duplicate Main Menu Additions. Prior to *CentreVu* CMS, if you had a duplicate entry, CMS did not know which item to select. If you have duplicate Main Menu items, you should delete one and reenter the item with a different name.

---

# Maintenance

For additional information on the Maintenance subsystem, please refer to Chapter 11 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Menu

R2 CMS MAINTENANCE maps to either the *CentreVu CMS System Setup >* subsystem or the **Maintenance >** subsystem (Figure 1-16).

R2 CMS	CentreVu CMS
MAINTENANCE	<b>Maintenance &gt;</b>
	<b>Back Up Data</b>
[ ] Backup-Data	<b>Restore Data</b>
[ ] Restore-Data	<b>Backup/Restore Devices</b>
	<b>Printer Administration</b>
[ ] Archive-Parameters	<b>Connection Status</b>
[ ] Daily-Data-Archive	<b>ACD Status</b>
	<b>Archiving Status</b>
[ ] Session-Status	<b>Error Log Report</b>
	<b>System Setup &gt;</b>
[ ] Error-Log	<b>Switch Setup</b>
	<b>Pseudo-ACD Setup</b>
[ ] Forecast Manager	<b>Load Pseudo-ACD Data</b>
	<b>Data Storage Allocation</b>
	<b>Free Space Allocation</b>
	<b>Store Intervals</b>
	<b>Agent Trace Record Contents</b>
	<b>Main Menu Addition</b>
	<b>CMS State</b>
	<b>Data Collection</b>
	<b>Data Summarizing</b>
	<b>R3 Migrate Data</b>
	<b>R2 Migrate Data</b>

**Figure 1-16: R2 CMS MAINTENANCE to CentreVu CMS Maintenance and System Setup Menus**

## Cross-Reference

Table 1-9 maps the standard R2 CMS MAINTENANCE menu item to the equivalent menu item in *CentreVu* CMS. MAINTENANCE items **do not** map exactly between the two releases.

**Table 1-9:**

R2 CMS	<i>CentreVu</i> CMS
Backup-Data	Back Up Data (Maintenance)
Restore-Data	Restore Data (Maintenance)
Archive-Parameters	Data Storage Allocation (System Setup)
Daily-Data-Archive	Storage Intervals (System Setup) Data Summarizing (System Setup)
Session-Status	Switch Setup (System Setup) Archiving Status (Maintenance)
Error-Log	Error Log (Maintenance)
Forecast Manager	Forecast Manager (Forecast)

## New Menu Items

The following *CentreVu* CMS System Setup menu items have no equivalent in R2 CMS:

- **Back Up/Restore Devices** in the **Maintenance >** subsystem allows you to name and describe a full path name for a device used for data backup, data migration, data restore, and loading pseudo-ACDs.
- **Printer Administration** in the **Maintenance >** subsystem allows you to assign a name, description, and some options to a printer. This printer then becomes known by CMS and can be used for printing any CMS report or window.

## General Changes

- R2 CMS Backup-Data maps to **Back Up Data** in the **Maintenance >** subsystem. An **incremental** backup has been added as well as the ability to back up individual tables

**Full** and **incremental** backup timetables have been created for you, but you must schedule the time for either of these to run.

- R2 CMS Restore-Data maps to **Restore Data** in the **Maintenance >** subsystem.
- R2 CMS Error Log maps to **Error Log Report** in the **Maintenance >** subsystem. The Error Log Report only logs errors that you can correct. This log also includes entries that were previously placed in R2 MAIL.
- R2 CMS Forecast Manager maps to **Forecast Manager** in the **Forecasting >** subsystem.
- R2 CMS Session Status maps to:
  - **Switch Setup** window in **System Setup >** and gives the switch name, switch release, CMS administrable switch features (for example, Vectoring).
  - **Archiving Status** window in the **Maintenance >** subsystem and gives the type of archives (interval, daily, weekly or monthly), status (success, failure, not run, running), the date, and time.
  - **Data Storage Allocation** in the **System Setup >** subsystem. This window also allows you to enter the number of splits/skills, agent logins, trunk groups, trunks, call work codes, vectors, and VDNs for which you want space allocated.
  - **Connection Status** window in the **Maintenance >** subsystem and allows you to monitor the data link between the CMS processor and the switch.
  - **Data Collection** window in the **System Setup >** subsystems and turns data collection on or off.
  - **ACD Status** in the **Maintenance >** subsystem and displays information about the current ACD.

- **ACD Status**

You can now repeatedly select the `Translations` action item without encountering an error on the even-numbered attempts.

- **Error Log**

The correct day is now logged in the Error Log report for archives and timetables that run near midnight.

- **Printer Administration**

If you enter a print type other than compressed, pica, or elite in this window, an Acknowledgment window tells you that you entered something different, and asks you if that is what you really want.

- **Connection Status**

When the link is down for several minutes (at least five), the `Connection status` may be `waiting session accept`. If this happens, you need to reboot the *CentreVu* CMS by logging in as root and performing the `shutdown -i6 -g0 -y` command.

- **Back Up Data**

The estimated number of backup tapes required for a multi-ACD system is now more accurate.

The *CentreVu* CMS file system backup has been modified to include the 14 Gigabyte tape device.

The `Verify tape` field on the Maintenance: Backup Data screen now defaults to `yes`.

Cartridge tapes are now retensioned prior to *CentreVu* CMS backup initiation. This minimizes the potential for tape problems.

- **Restore Data**

When restoring data, the disk space is now checked for all file systems used for historical data when historical data restore is being done. If any file system is more than 90% full, restore will give a warning in an Acknowledgment window. You can choose to ignore the warning or rearrange the file systems.

---

## Changes Due to EAS

With EAS, the ACD Status window has the following changes:

- `Maximum skill members` is new and displays the total skill members allowed for your system.
- `Skill members in use` is new and displays the number of agent/skill pairs currently logged in.
- `Measured split` field has been removed.
- `Split members, summed over all splits` field has been removed.

# Custom Reports

The *CentreVu* CMS custom reports interface has been totally redesigned. See the *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document for all necessary information.

Custom Reports allow the design of custom call record reports. Most of the call record reporting you do will be done via custom reports designed to meet your call center's needs. This report menu item will not appear on the reports menu if you have an external call record application.

## Menu

You create and run custom reports from this menu selection.

R2 CMS	<i>CentreVu</i> CMS
[ ] CUSTOM REPORTS CREATION	<b>Custom Reports &gt;</b>
Standard Reports	<b>Real-time &gt;</b>
[ ] Real-time Reports	<b>Historical &gt;</b>
[ ] Historical Reports	<b>Edit Report &gt;</b>
Custom Reports	
[ ] Real-time Reports	
[ ] Historical Reports	

**Figure 1-17: R2 and *CentreVu* CMS Custom Reports Menus**

## Cross-Reference

Table 1-10 maps the standard R2 CMS CUSTOM REPORTS menu item to the equivalent menu item in *CentreVu* CMS. CUSTOM REPORTS items **do not** map exactly between the two releases.

**Table 1-10:**

R2 CMS	<i>CentreVu</i> CMS
Standard Reports— Real-time Reports	Real-time Edit Report
Standard Reports— Historical Reports	Historical Edit Report
Custom Reports— Real-time Reports	Real-time Edit Report
Custom Reports— Historical Reports	Historical Reports Edit Report

## New Capabilities

The *CentreVu* CMS Custom Reports subsystem gives you more options and flexibility than you had in R2 CMS Custom Reports. The things you can do in *CentreVu* CMS that you cannot do in R2 CMS are:

- Design custom bar graphs (if you have purchased the *CentreVu* CMS Graphics package).
- Include Current Day Forecast data and exceptions data in custom historical reports.
- Create custom data tables in *INFORMIX*\* into which you can enter any data you wish. Then, you can include that data in custom historical reports.
- Copy the designs of multiple reports, standard or custom, into one custom report.
- Assign additional video attributes to the elements of a custom report, including color (if you have color terminals).
- Define areas of a report (for example, column headings, column totals, and row identifiers) that do not. Thus, the headings and totals remain in place while you scroll through the associated data.
- Merge data from two tables (for example, the Intrahour Agent and Intrahour Split tables) in a report field calculation.
- Create intrahour historical reports that include intrahour data for multiple days.
- Create data functions with multiple values (SUM, MAX, MIN) that display just one value. In addition, another data function, AVG, is available. AVG displays the average of all values found by the search criteria.

Note

R2 CMS “data functions” are called “aggregate functions” in *CentreVu* CMS.

- Merge data from multiple ACDs (the real ACD and pseudo-ACDs).

Use `count(*)` to count and display the number of occurrences of a particular piece of data (for example, the number of agents with fewer than 15 ACD calls in the hour).

---

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

## What You Cannot Do in *CentreVu* CMS

In *CentreVu* CMS Custom Reports, you cannot design reports that have hard-coded relative dates. That is, you cannot, as you could in R2 CMS, specify a relative date (for example, `-1` for yesterday) for a report so that the report will always run for that relative date.

---

## General Changes

The following list discusses significant areas of difference between R2 CMS Custom Reports and *CentreVu* CMS Custom Reports.

- **Running Reports**

You run *CentreVu* CMS custom reports via the `Custom Reports` main menu option, **not** via the `Reports` option as in R2 CMS.

- **Defining Report Fields and Criteria Statements**

In R2 CMS, you defined the data expression for a field and the criteria statement in a single window — the `Data Item` window.

In *CentreVu* CMS, you define the data expression for a field in the `Field` window and the criteria statement in the `Row Search` window. You then assign the criteria statement to the field. This separation of tasks in *CentreVu* CMS allows you to assign a criteria statement to multiple fields at one time, which in turn allows you to avoid repetitious typing of criteria statements.

- **Defining Dates**

In R2 CMS, you defined the dates for custom reports using two fields in the `Data Item Window` — the `Start Date` and `Number of Days` fields. In *CentreVu* CMS, you define the dates for custom reports using criteria statements that select on the database item `ROW_DATE`, using syntax that is almost identical to the criteria statements used for any other type of data.

- **Report Select Window**

When you select the `Delete` action from this window, you see the following message:

```
Do you really want to delete the report named  
"rpt_name"?
```

You are required to answer yes to delete the report or no to cancel the `Delete` action.

- **Row Search Window**

The `Order by` field help states that you cannot order by synonym.

- **Associated ACD**

Custom Report input fields are validated against the ACD which is specified, not the current ACD.

Previously, Custom Reports did not provide an ACD association in the same way as standard reports.

- To provide an ACD association for custom reports, an `Associated ACD` field has been added to the Screen Painter Field Definition and the Variable/Time/Date windows.
- Before the `Associated ACD` field can be used, the input field type must be defined as “ACD” on the Define Input window.
- On the Screen Painter Field Definition window, if you select `Synonym` in the `Field Format` list, you must also complete the `Associated ACD` fields.
- On the Variable/Time/Date window, the `Associated ACD` field is used only in association with the `Display` input variable field.

- **Creating Report Input Screens/Windows**

In the R2 CMS Data Item window, you defined variable criteria statements and variable Start Date and Number of Days statements. With variable criteria statements, R2 CMS automatically placed input fields on the Report Parameters screens (called Report Input windows in *CentreVu* CMS) so that a user selected the data for the report to include. See Figure 1-18.

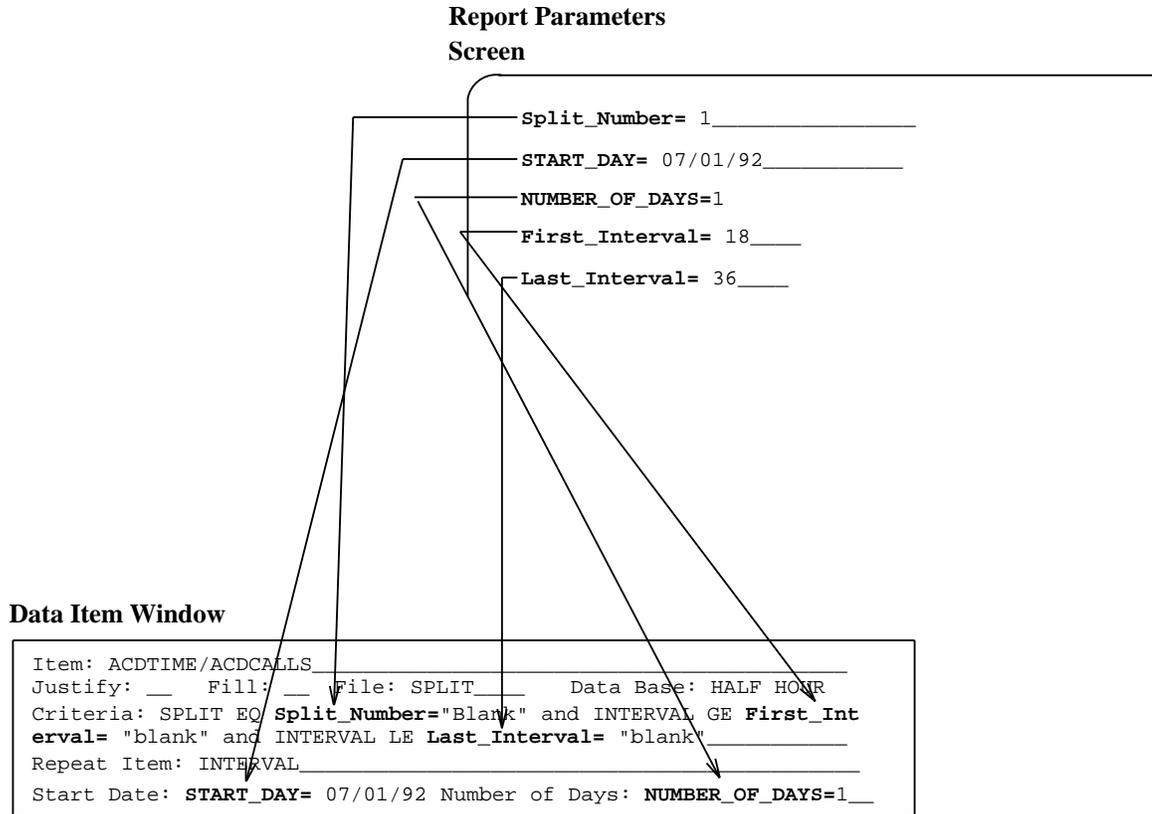
*CentreVu* CMS does not automatically create input fields from your variable criteria. In addition, you do not enter the input field's prompt as part of the criteria statement. Instead, the definition of report input fields (done in the Define Input window) has been separated from the definition of fields (done in the Field window) and data search criteria (done in the Row Search window). See Figure 1-19.

- **Defining Ranges in Criteria Statements**

In R2 CMS, you could define ranges of values with criteria statements that used the greater than ( $\gt$ ) and less than ( $\lt$ ) symbols. In *CentreVu* CMS, you can specify that a report input field allow the user to enter a range. *CentreVu* CMS automatically converts a criteria statement that uses an equals sign ( $=$ ) to a criteria statement that defines a range.

- Help text is now available from all areas of Custom Reports consistent with the rest of *CentreVu* CMS and should be helpful in creating custom reports.

- The custom reports editor no longer overlaps fields when combining graph reports and standard reports.
- The Screen Painter can now be used to move, copy, and erase bar fields in custom reports.



**Figure 1-18: R2 CMS Definition of Report Parameters Screens**

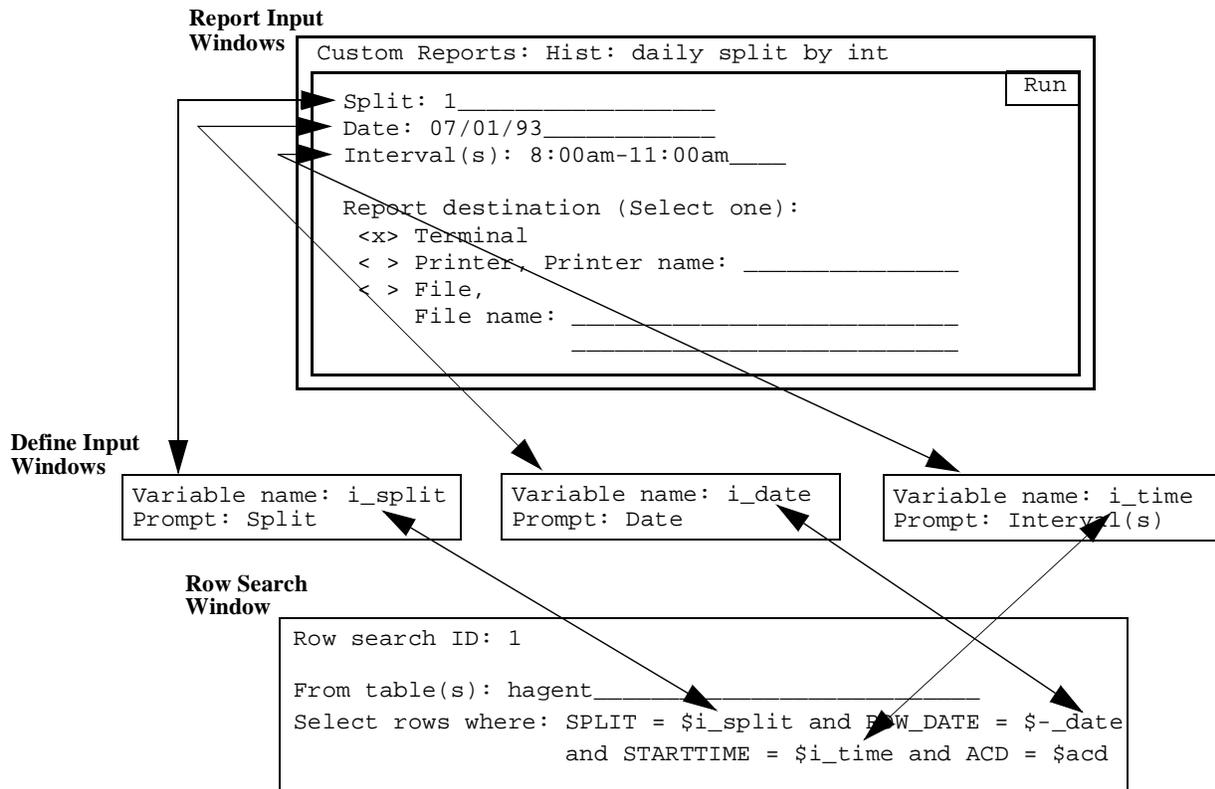


Figure 1-19: CentreVu CMS Definition of Report Input Windows

## Changes Due to EAS

The *Get copy of design* window will list all the Skill reports with EAS.

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# Forecasting

For additional information on the Forecast subsystem, please refer to the *CentreVu CMS Forecast (585-215-811)* document.

---

## Menu

R2 CMS FORECAST maps to **Forecast >** in *CentreVu™ CMS* (Figure 1-20). For complete information, see the *CentreVu™ CMS Forecast (AT&T 585-215-811)* document.

R2 CMS	CentreVu CMS
FORECAST	<b>Forecast &gt;</b>
	<b>Reports &gt;</b>
Reports	<b>Longterm</b>
[ ] Long-Term	<b>Financial</b>
[ ] Intraday	<b>Current Day</b>
[ ] Current-Day	<b>Intraday</b>
[ ] Special-Day	<b>Special Day</b>
[ ] Agent-Position-Required	<b>Agent Positions Required</b>
[ ] Trunk-Engineering	<b>Trunks Required</b>
	<b>Trunk Performance</b>
Administration	<b>Hypothetical &gt;</b>
[ ] Special-Days	<b>Data &gt;</b>
[ ] Call-Characteristics	<b>Copy Historical Data</b>
[ ] Trunk-Group-Blocking	<b>Edit Values</b>
[ ] Weighting-Coefficients	<b>Report</b>
	<b>Financial Report</b>
	<b>Administration &gt;</b>
	<b>Call Handling Profiles</b>
	<b>Costs Profiles</b>
	<b>Trunk Group Profiles</b>
	<b>Current Day Configuration</b>
	<b>Special Days</b>
	<b>Data Storage Allocation</b>
	<b>Forecast Manager</b>

**Figure 1-20: R2 and CentreVu CMS Forecast Menus**

## Cross-Reference

Table 1-11 maps the standard R2 CMS FORECAST menu item to the equivalent menu item in *CentreVu* CMS. FORECAST items **do not** map exactly between the two releases.

**Table 1-11:**

<b>R2 CMS</b>	<b><i>CentreVu</i> CMS</b>
Long-Term report	Longterm report
Intraday report	Intraday report
Current-Day report	Current Day report
Special-Day report	Special Day report
Agent-Position-Required report	Agent Positions Required report
Trunk-Engineering report	Trunks Required Trunk Performance
Special-Days	Special Days administration
Call-Characteristics	Call Handling Profiles administration
Trunk-Group-Blocking	Trunk Group Profiles administration
Weighting-Coefficients	Forecast Manager

## New Menu Items

The following *CentreVu* CMS System Setup menu items have no equivalent in R2 CMS:

- **Financial report**
- **Hypothetical Data**
- **Hypothetical report**
- **Hypothetical Financial Report**
- **Costs Profiles**
- **Current Day Configuration**
- **Data Storage Allocation**

---

## General Changes

The *CentreVu* CMS Forecast subsystem gives you more options and flexibility than you had in R2 CMS Forecasting. The things you can do in *CentreVu* CMS that you could not do in R2 CMS are:

- Create and use hypothetical data in forecasts.
- Calculate profit margins based on forecasted call traffic, costs, and revenue.
- Select past days that are either one day apart or seven days apart to supply the historical input data for your forecasts.
- Store current day forecast data for later retrieval in the standard Forecast Summary Report, in current day forecasts, or in custom reports.
- Store forecast input data for definite periods of time so you can use it for forecasts that you want to rerun or for forecasts where seasonal trending or special day data is much older than a year.
- Run a forecast based on the number of calls you expect, not just on historical data.
- Select one of several forecast methods or algorithms to calculate your report. A new method you can select finds the current trend (in the last 4 weeks) and projects that trend in the forecast.

The following list discusses significant areas of difference between R2 CMS forecasting and *CentreVu* CMS forecasting.

- In R2 CMS, you created a set of Forecast Call Characteristics and assigned it to a split at the same time. In *CentreVu* CMS, sets of Call Characteristics (called Call Handling Profiles in *CentreVu* CMS) are created generically and then selected for a split/skill when you run a forecast on the split/skill. In this way, you can avoid unnecessary duplication of effort when splits/skills have the same call handling objectives. In addition, you can define several call handling profiles for a single split/skill, if desired, and use different profiles as forecast conditions change.
- In R2 CMS, you could define a special set of call characteristics (defined for Split 0) that could be used for forecasts on any split/skill. In *CentreVu* CMS, the fact that you can create numerous call handling profiles and use them in forecasts for any split means that a special set of call characteristics for Split 0 is unnecessary.
- In *CentreVu* CMS, you access the Forecast Manager via the **Forecast** main menu option, not via the **Maintenance** option as in R2 CMS.

- In *CentreVu* CMS, you can specify how long to store forecast input data and current day forecast data, a special Data Storage window is available via the `Forecast` main menu option. In R2 CMS, you administered, via the Maintenance — Data Storage Allocation window, only the length of special day data storage.
- **Forecast Manager**  
An acknowledgment was added that warns you about data being deleted when data is recollected.
- **Intraday Forecast Report**  
If you request an Intraday Forecast report and the Current Day report does not exist, you get a status message that says `Current Day report does not exist`.

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## Miscellaneous

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### Migration

You must migrate your CMS data before upgrading to *CentreVu* CMS. See the *CentreVu™ CMS R3V4 Upgrades and Migration* (AT&T 585-215-806) document for instructions on migrating CMS data.

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### Installation & Maintenance

- The prompt for authorizing the number of agents was changed to read:  

```
Enter maximum number of agent members that can be administered (1-5200):
```
- There is no default for the above statement unless the CMS has been previously administered, in which case, the default is the current value.
- If the administrator is removing an ACD which is the default ACD for any existing logins, the following message will appear at the terminal:  

```
There are login ids which have this ACD as the default ACD. These logins will be changed to have the master ACD as their default ACD. See /cms/install/logdir/admin.log for details.
```
- If CMS is on when you start a cmsadm backup, the following question now appears **after** the calculation for the number of tapes needed for the backup, but **before** the backup actually begins:  

```
The backup is about to begin. CMS is currently on. CMS will be turned off automatically during that portion of the backup which needs CMS off. Press ENTER to proceed or BREAK to quit:
```

If you press `Enter`, the backup begins and dots are printed on the terminal (one per file) to let you know that the backup is running. You will not see a message on your terminal when CMS is turned off or when CMS is turned back on. The Backup Log file will show you when CMS was turned off and on, and at what time each occurred.
- The time it takes to estimate the number of tapes required for the backup has been reduced significantly.

## Printers

If a printer stops printing for no apparent reason, do the following from the *UNIX* system.

1. Enter `/usr/bin/lpstat -t` to check printer status.
2. Enter `/usr/bin/disable <printer name>` to disable the printer.
3. Enter `/usr/bin/enable <printer name>` to reset the printer.

The printer should start printing.

# Change Pages — Reports Document (AT&T 585-215-801)

---

## Appendix A

In the Split/Skill, Trunk Group, Trunk, Vector, and VDN database tables, the database item **OTHERCALLS** is defined as cumulative (C), which means that it applies to the historical database. **OTHERCALLS** should be defined as status (S) because it applies only to the real-time database.

To update your *CentreVu™ CMS Reports* (AT&T 585-215-801) document with this change, replace pages A-35, A-36, A-67, A-68, A-75, A-76, A-84, A-85, A-94, A-95 with the following change pages.

[This page intentionally left blank.]



Database Item	Description	Type
<b>O_ACDTIME</b>	Talk time of all <b>O_ACDCALLS</b> (does not include <b>HOLDTIME</b> ). Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACWTIME</b>	Duration of all after call work associated with <b>O_ACDCALLS</b> . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of outbound calls queued to this split/skill that were not answered or abandoned as ACD split/skill calls. These include forced busy calls and calls with unknown dispositions.	C
<b>OLDESTCALL</b> (real-time)	Current number of seconds the oldest split/skill ACD call has been waiting in queue or ringing at an agent position.	S
<b>ONACD</b> (real-time)	Current number of <b>POSITIONS</b> that are on inbound and outbound ACD calls to this split/skill. <b>ONACD</b> includes <b>ONACDOUT</b> .	S
<b>ONACDAUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on <b>AUXOUT</b> calls with one or more ACD calls on hold for this split/skill. <b>ONACDAUXOUT</b> is a subset of <b>ONACDOUT</b> .	S
<b>ONACDOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on outbound calls to this split/skill. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
<b>ONACWIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on inbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWIN</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
<b>ONACWOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on outbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWOUT</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S

## Change Page



Database Item	Description	Type
<b>ONAUXIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on inbound extension calls.	S
<b>ONAUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on outbound extension calls.	S
<b>ONHOLD</b> (real-time)	Current number of split/skill calls on hold at agent positions. Available on System 85, Generic 2, and Generic 3 switches.	S
<b>OTHER</b> (real-time)	Current number of <b>POSITIONS</b> doing <b>OTHER</b> work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent is on a direct agent call or in ACW for a direct agent call; the agent is dialing to place a call or to activate a feature; a personal call or a direct agent ACD call is ringing with no other activity. For Generic 1 and Generic 3 switches without EAS, agents are logged into multiple splits and doing work for a split other than this one (on an ACD call, in ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents are logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a skill other than this one). Agent <b>POSITIONS</b> shows up as in <b>OTHER</b> directly after the link to the switch comes up and directly after the agents log in before the <i>CentreVu</i> CMS is notified of the agent's work state. <b>OTHER</b> includes <b>DA_ONACD</b> and <b>DA_INACW</b> .	S
<b>OTHERCALLS</b>	Number of calls offered to this split/skill that did not abandon and were not answered by an ACD agent for this split/skill. <b>OTHERCALLS = BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUEUECALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> waited in queue until the disposition was known and the call left the split.	C

Table 1:

Database Item	Description	Type
<b>I_INOCC</b>	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>I_OUTOCC</b>	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (i.e., until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>INBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on inbound calls.	S
<b>INCALLS</b>	Number of inbound calls that were carried by this <b>TKGRP</b> . <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval. <b>INTRVL</b> applies to intrahour intervals only.	A
<b>MBUSY (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are maintenance busy.	S

Table 1:

Database Item	Description	Type
<b>MBUSYTIME</b>	Total time during the collection interval that trunks in the trunk group were maintenance busy.	C
<b>NUMINUSE (real-time)</b>	Current number of <b>TRUNKS</b> that are busy (on calls or maintenance busy). <b>NUMINUSE = INBOUND + OUTBOUND + MBUSY</b>	S
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> that were offered to one or more splits/skills and were answered by an agent in one of those splits/skills. <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on trunks in this trunk group that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk group that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>SHORTCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on outbound calls. <b>OUTBOUND</b> includes <b>ADJUNCTOUT</b> .	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by this <b>TKGRP</b> . <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C

**Table 1:**

Database Item	Description	Type
ROW_DATE (index)	Date on which data was collected.	C

Table 2:

Database Item	Description	Type
<b>INCALLS</b>	Number of inbound calls carried by this trunk. This includes calls with short holding times ( <b>SHORTCALLS</b> ), but does not include calls that had a trunk failure ( <b>FAILURES</b> ).  <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, or 60).  <b>INTRVL</b> applies to intrahour intervals only.	A
<b>ITN (index)</b>	Internal trunk number of the trunk.	A
<b>LOGID (real-time)</b>	Current agent (Login ID) handling the call. This is blank (NULL) when the trunk is idle.	S
<b>MBUSYTIME</b>	Length of time during the collection interval that this trunk was maintenance busy.	C
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were answered by an agent in one of those splits/skills.  <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table 2:

Database Item	Description	Type
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions.  <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions.  <b>OTHERCALLS</b> includes <b>SHORTCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by the trunk.  <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>PRIORITY (real-time)</b>	Priority at which call was queued. Without vectoring, the values are YES, NO, or as defined in Dictionary. With vectoring, the values are LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets a forced disconnect. Generic 3 switches with vectoring use MED for "no priority" and HIGH for "priority" calls that queue directly to a split without going through a vector, calls that queue to a split/skill via "route to" number of "messaging split/skill" vector commands, and calls that intraflow to a split.	S
<b>PRIORITY2-3 (real-time)</b>	Priority at which call was queued to a second or third split/skill, the values are: YES, NO, or as defined in Dictionary. With vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets forced disconnect (announcement).  Available on Generic 2.2 with vectoring and EAS, and Generic 3 switches with vectoring.	S
<b>QUECOUNT (real-time)</b>	Number of ACD split/skill queues that the call is in. This is blank (NULL) when the trunk goes idle, gets forced busy, gets a forced disconnect, connects to a station or agent, or forwards out of the queue. Values: NULL, 1-3	S

Table 3:

Database Item	Description	Type
<b>INTIME</b>	Time spent by <b>INCALLS</b> in the <b>VECTOR</b> executing steps. <b>INTIME</b> stops accruing when the "stop" vector step is executed, when a blank step in the vector is reached, when busy or disconnect is sent, when the call abandons, when a "route to" command succeeds, when a "messaging split/skill or "adjust routing" command succeeds, or when the split/skill or direct agent ACD call rings an agent.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, 60). <b>INTRVL</b> applies to intrahour intervals only.	A
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls processed by the vector.  Available on Generic 2.2 and Generic 3 switches with the look-ahead Interflow feature.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected to another switch by way of the look-ahead interflow feature.  Available on Generic 2.2 and Generic 3 switches with the look-ahead interflow feature.	C
<b>NUMVDNS</b>	Current number of VDNs that are assigned to this vector.	A
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> that connected to a non-ACD destination, were redirected out of the vector, were given a busy signal, or were disconnected.  <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> spent in the vector until the disposition was known.  <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another destination by way of a "go to vector", "route to", or "adjunct routing" command to a destination other than a split/skill or direct agent. (Calls that route to a split/skill or direct agent by way of a "route to," "adjunct routing," or "messaging split/skill" command are still tracked in the vector.)  <b>OUTFLOWCALLS</b> includes <b>GOTOCALLS</b> and <b>INTERFLOWCALLS</b> .	C

Table 3:

Database Item	Description	Type
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in the vector before being redirected. <b>OUTFLOWTIME</b> includes <b>GOTOTIME</b> .	C
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer. Available on Generic 3 switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions. Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition. Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE</b> (index)	Date on which data was collected.	C
<b>STARTTIME</b> (real-time)	Start time for the interval data was collected.	S
<b>VDISCCALLS</b>	Number of calls forced to disconnect because the vector disconnect timer timed out or because the call reached a vector "stop" command without being queued. Available on Generic 3 Version 2 and later switches.	C
<b>VECTOR</b> (index)	Vector number that this row represents.	A

Table 4:

Database Item	Description	Type
<b>INVECTOR</b> (real-time)	Current number of <b>INPROGRESS</b> calls that are being processed by a vector. Calls that are in queue and calls that are ringing are still counted as <b>INVECTOR</b> . Calls are no longer counted as <b>INVECTOR</b> when they connect to a station, are answered by an agent, abandon, or outflow from the VDN. <b>INVECTOR</b> includes <b>INQUEUE</b> and <b>INRING</b> .	S
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls in this VDN. Available on Generic 2.2 and Generic 3 switches.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches.	C
<b>MAXOCWTIME</b>	Maximum time during the collection interval that a caller waited in the VDN before being answered or connected, abandoning, being redirected, receiving busy signal or being disconnected. This applies only to the first disposition of the call.	C
<b>MAXWAITING</b>	Maximum number of calls in progress in the VDN during the collection interval.	C
<b>NOANSREDIR</b>	Number of split/skill ACD calls that rang at agent stations and then were automatically requeued to the split's/skill's queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later Generic 3 switches.	C
<b>NUMTGS</b>	Number of trunk groups assigned to this VDN.	A
<b>OLDESTCALL</b> (real-time)	Amount of time the oldest call has been waiting in this VDN to be answered.	S
<b>OTHERCALLS</b>	<b>OTHERCALLS</b> include forced busy, forced disconnect, outflow calls and non-ACD calls that were answered. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>CONNECTCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Duration of all <b>OTHERCALLS</b> until the calls leave the VDN (for example, calls drop, are sent to another VDN, are transferred, or are sent outside the switch). <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>CONNECTTIME</b> , <b>CONNTALKTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C

**Table 4:**

<b>Database Item</b>	<b>Description</b>	<b>Type</b>
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another VDN or to a destination outside the switch by way of a “route to” or “adjunct routing” command.  <b>OUTFLOWCALLS</b> includes <b>INTERFLOWCALLS</b> .	C
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in this VDN before being redirected.	C
<b>PERIOD1-9</b>	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
<b>PERIODCHG</b>	Indicates whether or not the periods for call profiles were changed during the collection interval.	A
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RETURNCALLS</b>	Number of calls that reached this VDN via the VDN return destination feature.  Available on Generic 3 Version 3 and later switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE (index)</b>	Date the information was collected.	C
<b>SERVICELEVEL</b>	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
<b>SKILLACWTIME1-3</b>	ACW time spent by agents for calls answered in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
<b>SKILLCALLS1-3</b>	Number of calls answered by agents in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C

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# Change Pages — Custom Reports Document (AT&T 585-215-802)

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## Appendix A

In the Split/Skill, Trunk Group, Trunk, Vector, and VDN database tables, the database item **OTHERCALLS** is defined as cumulative (C), which means that it applies to the historical database. **OTHERCALLS** should be defined as status (S) because it applies only to the real-time database.

To update your *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document with this change, replace pages A-35, A-36, A-67, A-68, A-75, A-76, A-84, A-85, A-94, A-95 with the following change pages.

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## Change Page



Database Item	Description	Type
<b>O_ACDTIME</b>	Talk time of all <b>O_ACDCALLS</b> (does not include <b>HOLDTIME</b> ). Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACWTIME</b>	Duration of all after call work associated with <b>O_ACDCALLS</b> . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of outbound calls queued to this split/skill that were not answered or abandoned as ACD split/skill calls. These include forced busy calls and calls with unknown dispositions.	C
<b>OLDESTCALL (real-time)</b>	Current number of seconds the oldest split/skill ACD call has been waiting in queue or ringing at an agent position.	S
<b>ONACD (real-time)</b>	Current number of <b>POSITIONS</b> that are on inbound and outbound ACD calls to this split/skill. <b>ONACD</b> includes <b>ONACDOUT</b> .	S
<b>ONACDAUXOUT (real-time)</b>	Current number of <b>POSITIONS</b> that are on <b>AUXOUT</b> calls with one or more ACD calls on hold for this split/skill. <b>ONACDAUXOUT</b> is a subset of <b>ONACDOUT</b> .	S
<b>ONACDOUT (real-time)</b>	Current number of <b>POSITIONS</b> that are on outbound calls to this split/skill. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
<b>ONACWIN (real-time)</b>	Current number of <b>POSITIONS</b> that are in ACW and on inbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWIN</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
<b>ONACWOUT (real-time)</b>	Current number of <b>POSITIONS</b> that are in ACW and on outbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWOUT</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S



Database Item	Description	Type
<b>ON AUXIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on inbound extension calls.	S
<b>ON AUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on outbound extension calls.	S
<b>ON HOLD</b> (real-time)	Current number of split/skill calls on hold at agent positions. Available on System 85, Generic 2, and Generic 3 switches.	S
<b>OTHER</b> (real-time)	Current number of <b>POSITIONS</b> doing <b>OTHER</b> work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent is on a direct agent call or in ACW for a direct agent call; the agent is dialing to place a call or to activate a feature; a personal call or a direct agent ACD call is ringing with no other activity. For Generic 1 and Generic 3 switches without EAS, agents are logged into multiple splits and doing work for a split other than this one (on an ACD call, in ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents are logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a skill other than this one). Agent <b>POSITIONS</b> shows up as in <b>OTHER</b> directly after the link to the switch comes up and directly after the agents log in before the <i>CentreVu</i> CMS is notified of the agent's work state. <b>OTHER</b> includes <b>DA_ONACD</b> and <b>DA_INACW</b> .	S
<b>OTHERCALLS</b>	Number of calls offered to this split/skill that did not abandon and were not answered by an ACD agent for this split/skill. <b>OTHERCALLS = BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUEUECALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> waited in queue until the disposition was known and the call left the split.	C

Table 5:

Database Item	Description	Type
<b>I_INOCC</b>	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>I_OUTOCC</b>	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (i.e., until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>INBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on inbound calls.	S
<b>INCALLS</b>	Number of inbound calls that were carried by this <b>TKGRP</b> . <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval. <b>INTRVL</b> applies to intrahour intervals only.	A
<b>MBUSY (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are maintenance busy.	S

Table 5:

Database Item	Description	Type
<b>MBUSYTIME</b>	Total time during the collection interval that trunks in the trunk group were maintenance busy.	C
<b>NUMINUSE (real-time)</b>	Current number of <b>TRUNKS</b> that are busy (on calls or maintenance busy). <b>NUMINUSE = INBOUND + OUTBOUND + MBUSY</b>	S
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> that were offered to one or more splits/skills and were answered by an agent in one of those splits/skills. <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on trunks in this trunk group that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk group that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>SHORTCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on outbound calls. <b>OUTBOUND</b> includes <b>ADJUNCTOUT</b> .	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by this <b>TKGRP</b> . <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C

**Table 5:**

Database Item	Description	Type
ROW_DATE (index)	Date on which data was collected.	C

Table 6:

Database Item	Description	Type
<b>INCALLS</b>	Number of inbound calls carried by this trunk. This includes calls with short holding times ( <b>SHORTCALLS</b> ), but does not include calls that had a trunk failure ( <b>FAILURES</b> ).  <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, or 60).  <b>INTRVL</b> applies to intrahour intervals only.	A
<b>ITN (index)</b>	Internal trunk number of the trunk.	A
<b>LOGID (real-time)</b>	Current agent (Login ID) handling the call. This is blank (NULL) when the trunk is idle.	S
<b>MBUSYTIME</b>	Length of time during the collection interval that this trunk was maintenance busy.	C
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were answered by an agent in one of those splits/skills.  <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table 6:

Database Item	Description	Type
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions.  <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions.  <b>OTHERCALLS</b> includes <b>SHORTCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by the trunk.  <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>PRIORITY (real-time)</b>	Priority at which call was queued. Without vectoring, the values are YES, NO, or as defined in Dictionary. With vectoring, the values are LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets a forced disconnect. Generic 3 switches with vectoring use MED for “no priority” and HIGH for “priority” calls that queue directly to a split without going through a vector, calls that queue to a split/skill via “route to” number of “messaging split/skill” vector commands, and calls that intraflow to a split.	S
<b>PRIORITY2-3 (real-time)</b>	Priority at which call was queued to a second or third split/skill, the values are: YES, NO, or as defined in Dictionary. With vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets forced disconnect (announcement).  Available on Generic 2.2 with vectoring and EAS, and Generic 3 switches with vectoring.	S
<b>QUEECOUNT (real-time)</b>	Number of ACD split/skill queues that the call is in. This is blank (NULL) when the trunk goes idle, gets forced busy, gets a forced disconnect, connects to a station or agent, or forwards out of the queue. Values: NULL, 1-3	S

Table 7:

Database Item	Description	Type
<b>INTIME</b>	Time spent by <b>INCALLS</b> in the <b>VECTOR</b> executing steps. <b>INTIME</b> stops accruing when the "stop" vector step is executed, when a blank step in the vector is reached, when busy or disconnect is sent, when the call abandons, when a "route to" command succeeds, when a "messaging split/skill" or "adjust routing" command succeeds, or when the split/skill or direct agent ACD call rings an agent.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, 60). <b>INTRVL</b> applies to intrahour intervals only.	A
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls processed by the vector.  Available on Generic 2.2 and Generic 3 switches with the look-ahead Interflow feature.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected to another switch by way of the look-ahead interflow feature.  Available on Generic 2.2 and Generic 3 switches with the look-ahead interflow feature.	C
<b>NUMVDNS</b>	Current number of VDNs that are assigned to this vector.	A
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> that connected to a non-ACD destination, were redirected out of the vector, were given a busy signal, or were disconnected.  <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> spent in the vector until the disposition was known.  <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another destination by way of a "go to vector", "route to", or "adjunct routing" command to a destination other than a split/skill or direct agent. (Calls that route to a split/skill or direct agent by way of a "route to," "adjunct routing," or "messaging split/skill" command are still tracked in the vector.)  <b>OUTFLOWCALLS</b> includes <b>GOTOCALLS</b> and <b>INTERFLOWCALLS</b> .	C

**Table 7:**

Database Item	Description	Type
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in the vector before being redirected. <b>OUTFLOWTIME</b> includes <b>GOTOTIME</b> .	C
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE</b> (index)	Date on which data was collected.	C
<b>STARTTIME</b> (real-time)	Start time for the interval data was collected.	S
<b>VDISCCALLS</b>	Number of calls forced to disconnect because the vector disconnect timer timed out or because the call reached a vector "stop" command without being queued.  Available on Generic 3 Version 2 and later switches.	C
<b>VECTOR</b> (index)	Vector number that this row represents.	A

Table 8:

Database Item	Description	Type
<b>INVECTOR</b> (real-time)	Current number of <b>INPROGRESS</b> calls that are being processed by a vector. Calls that are in queue and calls that are ringing are still counted as <b>INVECTOR</b> . Calls are no longer counted as <b>INVECTOR</b> when they connect to a station, are answered by an agent, abandon, or outflow from the VDN. <b>INVECTOR</b> includes <b>INQUEUE</b> and <b>INRING</b> .	S
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls in this VDN. Available on Generic 2.2 and Generic 3 switches.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches.	C
<b>MAXOCWTIME</b>	Maximum time during the collection interval that a caller waited in the VDN before being answered or connected, abandoning, being redirected, receiving busy signal or being disconnected. This applies only to the first disposition of the call.	C
<b>MAXWAITING</b>	Maximum number of calls in progress in the VDN during the collection interval.	C
<b>NOANSREDIR</b>	Number of split/skill ACD calls that rang at agent stations and then were automatically requeued to the split's/skill's queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later Generic 3 switches.	C
<b>NUMTGS</b>	Number of trunk groups assigned to this VDN.	A
<b>OLDESTCALL</b> (real-time)	Amount of time the oldest call has been waiting in this VDN to be answered.	S
<b>OTHERCALLS</b>	<b>OTHERCALLS</b> include forced busy, forced disconnect, outflow calls and non-ACD calls that were answered. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>CONNECTCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Duration of all <b>OTHERCALLS</b> until the calls leave the VDN (for example, calls drop, are sent to another VDN, are transferred, or are sent outside the switch). <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>CONNECTTIME</b> , <b>CONNTALKTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C

**Table 8:**

<b>Database Item</b>	<b>Description</b>	<b>Type</b>
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another VDN or to a destination outside the switch by way of a “route to” or “adjunct routing” command.  <b>OUTFLOWCALLS</b> includes <b>INTERFLOWCALLS</b> .	C
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in this VDN before being redirected.	C
<b>PERIOD1-9</b>	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
<b>PERIODCHG</b>	Indicates whether or not the periods for call profiles were changed during the collection interval.	A
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RETURNCALLS</b>	Number of calls that reached this VDN via the VDN return destination feature.  Available on Generic 3 Version 3 and later switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE (index)</b>	Date the information was collected.	C
<b>SERVICELEVEL</b>	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
<b>SKILLACWTIME1-3</b>	ACW time spent by agents for calls answered in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
<b>SKILLCALLS1-3</b>	Number of calls answered by agents in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C

# General Information

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## Audience

This chapter is written for customers who are upgrading from a Release 3 Call Management System (R3 CMS) to a *CentreVu*<sup>™</sup> Call Management System Release 3 Version 4 (*CentreVu* CMS).

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## Introduction

This chapter describes the differences between the R3 CMS and the *CentreVu* CMS.

The chapter is organized in the following sections:

- Differences and Enhancements Overview
- R3 CMS to CentreVu CMS Migration
- Data, Database Items, and Calculations
- Real-Time Reports
- Historical Reports
- Timetables and Shortcuts
- Dictionary
- Exceptions
- ACD Administration
- User Permissions
- System Setup and Maintenance
- Custom Reports
- Forecasting
- User Interface
- Miscellaneous

## Differences and Enhancements Overview

This section overviews the major differences in and enhancements to the *CentreVu* CMS software in comparison to the R3 CMS.

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### **CentreVu CMS Documents**

The document set for *CentreVu* CMS is different from the R3 CMS document set. The *CentreVu* CMS documents available to you are:

- AT&T 585-215-800 — *CentreVu™ CMS R3V4 Administration*
- AT&T 585-215-801 — *CentreVu™ CMS R3V4 Reports*
- AT&T 585-215-802 — *CentreVu™ CMS R3V4 Custom Reports*
- AT&T 585-215-803 — *CentreVu™ CMS R3V4 Change Description*
- AT&T 585-215-804 — *CentreVu™ CMS External Call History Interface*
- AT&T 585-215-806 — *CentreVu™ CMS R3V4 Upgrades and Migrations*
- AT&T 585-215-807 — *CentreVu™ CMS R3V4 Sun\* SPARCserver† Computers Installation and Maintenance*
- AT&T 585-215-808 — *CentreVu™ CMS R3V4 Sun® Connectivity Diagram*
- AT&T 585-215-812 — *CentreVu™ CMS Forecast*

In addition to paper documents, the following *CentreVu* CMS documents available on CD-ROM (AT&T 585-215-890):

- *CentreVu™ CMS Administration*
- *CentreVu™ CMS Reports*
- *CentreVu™ CMS Custom Reports*
- *CentreVu™ CMS External Call History*
- *CentreVu™ CMS Sun® SPARCserver™ Computers Upgrades and Migration*
- *CentreVu™ CMS Forecast.*

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\*Sun is a registered trademark of Sun Microsystems, Inc.

†SPARCserver is trademark of SPARC International.

## Sun Platform

*CentreVu* CMS supports *Sun SPARCserver* 5, 10, and 20 computers running *Solaris*\* 2.4. All new CMS installations will be on *Sun* computers.

Refer to the *CentreVu*<sup>™</sup> CMS *Sun*<sup>®</sup> *SPARCserver*<sup>™</sup> *Computers Installation and Maintenance* (AT&T 585-215-807) document for more information.

The *Sun* platform:

- Provides multiprocessor capabilities.
- Increases processor performance (approximately five times faster than the *INTEL*<sup>†</sup> platforms).
- Increases storage capacity (3-GB disk capacity, which can increase to 24-GB disk capacity)
- Increases serial I/O capacity (up to 252 devices), which means you can have up to 252 terminals or any combination of terminals, printers, or modems.
- Improves real-time report refresh rate.
- Enhances system reliability using error correcting memory.
- Allows for cost-effective upgrades (for example, disk storage, memory, processor, etc.).
- Provides on-line *Solaris* help via *AnswerBook* software.
- Uses *Solaris* 2.4 as the operating system with the *CentreVu* CMS software.
- Provides remote console functionality.
- Supports 2-GB internal or external disks.
- Supports 150-MB, 2.5-GB, 5-GB, and 14-GB tape drives.
- Supports the Aurora SBus *Multiport*<sup>‡</sup> cards.
- Supports 8, 16, and 64 port Network Terminal Servers (NTS).

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\*Solaris is a registered trademark of Sun Microsystems, Inc.

†INTEL is a registered trademark of Intel Corporation.

‡Multiport is a trademark of Aurora Technologies, Inc.

## ***INTEL* Platform**

*CentreVu* CMS supports the following *INTEL* platforms:

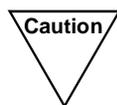
- AT&T 6386 WGS 25/S
- AT&T 6386 WGS 33/S
- AT&T *StarServer*® S
- 3332.

## Supported Switch Capacities

*CentreVu* CMS supports the following switch capacities:.

**Table 2-1:**

Item	R2V4	G2.2/ EAS	G1.1	G3i/ G3V2	G3r	G3V2/ V3/V4	Total CMS
Agent Positions	1023	1023/ 5115	400	400	1023	5200	5200
Agents Logged In	1023	1023/ 1023	400	400	1023	5200	5200
Agent Trace Active	25	25	25	25	25	25	25
BHCC (ISDN system)	25000	25000	5700	7000	40000	40000	40000
Call records (internal)	5000	5000	5000	5000	5000	5000	5000
Call Work Codes	0	1999	0	1999	1999	1999	1999
Exception Records	2000	2000	2000	2000	2000	2000	2000
Login IDs	10000	10000	10000	10000	10000	10000	10000
Login/Logout Records	999999	999999	999999	999999	999999	999999	999999
Splits/Skills	60	60/600	99	99	99	255	600
Trunk Groups	255	255	99	99	255	666	666
Trunks (measured+unmeasured)	4000	4000	400	400	4000	4000	4000
VDNs (measured)	2000	2000	n/a	500	2000	2000	2000
Vectors	128	511	n/a	256	512	512	2048
Vector Steps	15	15	n/a	15	15	32	32



Even though *CentreVu* CMS supports these capacities, you will not be able to upgrade unless you have sufficient free space on your disk to accommodate all the data you want to collect. Your current disk space allocation may specify more items to be measured for longer lengths of time than you actually have space for on your disk. If you do not have enough disk space, you must purchase more disks, make the length of time data is stored shorter, or lower the number of entities measured before you can upgrade.

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## Performance

If you have the same configuration on *CentreVu* CMS as you did on R3.0 CMS, the performance should be similar.

Expert Agent Selection (EAS) should not have any direct impact on performance. From a performance standpoint, skills are equivalent to splits. For large CMS call centers, you may require additional memory because a larger number of skills may be used with *CentreVu* CMS than the number of splits used with R3.0 CMS.

The maximum allowed values of the various parameters have been increased in *CentreVu* CMS, and this has an indirect effect on performance. For example, the maximum number of agent-skill pairs is about five times larger on *CentreVu* CMS than on R3.0 CMS. This can result in more disks and RAM being needed.

Internal call history (call records), when enabled, will cause additional load on processor occupancy and may require that you slow your refresh rates. Internal call history will only be used by small call centers with low call rates, so the effect on performance should be small. The effect of external call history on performance should also be small.

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## External Call History Interface

The External Call History Interface (ECHI) is now supported on the *INTEL* and *Sun* hardware platforms. Please refer to the *CentreVu™ CMS External Call History Interface* (AT&T 585-215-804) document for information on using the ECHI feature.

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## Multi-ACDs

*CentreVu* CMS supports multiple ACDs. Up to four ACDs can report to one CMS. The changes that have been made to *CentreVu* CMS to support multiple ACDs are outlined in each appropriate section of this chapter.

## CMS and Expert Agent Selection (EAS)

Expert Agent Selection (EAS) is an optional feature that builds on the power of the Call Vectoring and ACD features of the switch by routing incoming calls to the correct agent on the first try. By using the ACD queuing and the vector commands *Queue-to-Main* and *Check-Backup*, a call routes to an agent that has the skills required to handle that call. EAS call distribution is based on **skill**. Calls are queued to skills and handled by an agent who is a member of at least one of the skills associated with the skills that a caller requires.

The EAS feature requires extensive planning before implementation. Also, the EAS feature has different capabilities on different switches. This section gives a very high-level description of EAS and the changes on CMS to track this feature. See the “CMS and the Expert Agent Selection Feature” Appendix in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for a more in-depth description.

## EAS on Generic 3 Version 2 and Later Switches

With EAS on Generic 3 Version 2 and later switches, agent login IDs must be part of the extension dialing plan and must also be different from the agent voice terminal extensions. It may be necessary to readminister the CMS agent login ID synonyms in the Dictionary. If you must change login IDs, the agent data collected prior to the EAS cut will have a different login ID and will require a separate report invocation.

## EAS on Generic 2.2 Switches

With Generic 2.2 switches, EAS increases the number of agent groups by expanding each ACD split into a set of 10 skills called a *skill tens group*. When EAS is active, each ACD split becomes a skill tens group. The translation of splits to skill tens groups works as follows:

Split		Skill Tens Group
1	→	10-19
2	→	20-29
3	→	30-39
4	→	40-49
	•	
	•	
	•	
60	→	600-609

When creating vectors, a call can be queued to up to three skills at the same time (Multiple Skill Queuing) as long as the skills all belong to the same skill tens group. For example, queuing to skills 26 and 21 is multiple skill queuing,

but queuing to skills 21 and 53 is not because the call outflows from skill 21 and inflows to skill group 53. Likewise, queuing to skills 24, 21, and 33 results in an outflow from 24 and 21 and an inflow to skill 33 because it is in a different skill group.

Skill groups ending in zero (20, 30, 40, etc.) are default skill groups. These are super groups for the skill tens group. A call queued to skill 10 can be delivered to anyone with skills 10-19. Agents are administered to defaults and then enter other skills via their voice terminals.

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## Move Agents While Staffed

When running with a Generic 3 Version 4 switch, *CentreVu* CMS supports changing skills (in an EAS environment) and moving agents between splits (in a non-EAS environment) without requiring the agents to log off.

You can access the Move Agents While Staffed feature from the ACD Administration subsystem. Refer to the "ACD Administration" section of this chapter and Chapter 8, "ACD Administration," in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for more information.

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## Call Vectoring

*CentreVu* CMS supports 32 vector steps per vector. The Vector Contents window in the ACD Administration subsystem is a multipage screen.

The following enhancements and additions have been made to the *CentreVu* CMS vectoring feature:

- **EAS changes** — The following vector commands have been changed from the split usage to skill usage with EAS. These commands can queue to a specific skill, can reference a VDN skill preference, or can check the conditions in the skill.
  - check backup skill
  - go to step
  - go to vector
  - messaging skill
  - queue to main skill.
- **Converse vector step (G3V2 and later switches)** — *CentreVu* CMS supports the *converse* step. If you will be using *converse*, you need to administer more unmeasured trunks, since the *converse* command reports about a call using an unmeasured trunk.
- **Multiple Music Sources** — allows you to change the "wait" vector step to hear a second audio/music message. For instance, if a caller is

waiting in queue and has heard the first announcement, the vector can now direct a second treatment to the caller.

If you try to assign an audio/music source in a “wait” vector step and your switch does not have Multiple Vector Audio/Music Sources, you will see a feature not enabled on switch message.

- **ANI Routing** — is a new conditional that allows routing decisions based on caller identity.
- **ASA Routing** — is a new conditional that allows routing decisions depending on the switch-based rolling Average Speed of Answer (ASA) for a given split/skill or VDN.
- **EWT Routing** — is a new conditional that allows routing decisions based on the Expected Wait Time (EWT) of a call.
- **VDN Calls Routing** — is a new conditional that allows making routing decisions based on the number of active incoming trunk calls for a VDN.
- **II Digits Routing** — is a new conditional that allows making routing decisions based on Information Indicator digits provided with a call.
- **Enhanced comparator and thresholds** — allows “goto” and “route to number” commands use of the complete set of comparators; implements a “none” threshold for digits checking, and “active” or “latest” VDN thresholds for indirect VDN references.
- **Wildcard matching** — allows you to use + and ? for matching collected digits or ANI digits. Wildcard matching can only be used with the = or < > comparators.
- **“with coverage yes/no” parameter** — has been added to the “route to number” command to allow flexible routing control.
- **Abbreviated/pack vector steps** — enable vector steps to expanded to include additional commands and options.
- **Vector routing tables** — adds < >, >=, <=, = in table, not-in table comparators; tables administered on the switch that contain digit strings against which ANI digits and digits collected by Call Prompting can be tested.
- **Adding or deleting vector steps** — automatically modifies vector step numbers when you add or delete vector steps.

For more information on using the new vector features, refer to the “ACD Administration” section of this chapter, Chapter 8, “ACD Administration,” and the “Call Vectoring and Related Generic 3 Feature” appendix in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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## **Average Speed of Answer (ASA)**

*CentreVu* CMS computes average speed of answer (ASA) and uses ASA in existing reports. However, the Generic 3 Version 4 switch provides a Rolling ASA. The Rolling ASA is reported in exceptions reports and is available for use in custom reports.

For information on ASA, refer to "Exceptions" section of this chapter and Chapter 7, "Exceptions," in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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## **Expected Wait Time (EWT)**

The Expected Wait Time (EWT) is the estimated time a call will wait if it is queued to a split/skill at a specific priority. EWT measures only the time it takes to deliver the call to an agent. It does not include ringing time.

EWT is shown in the real-time Split Status and Skill Status reports and exceptions reports. EWT thresholds can be administered in the Exceptions subsystem. If you have a pre-Generic 3 Version 4 switch, the EWT columns/fields are shown but always remain blank.

For more information on EWT, refer to the "Exceptions" section of this chapter and Chapter 7, "Exceptions," in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

## Phantom Abandon Call Timer

In international areas where central offices do not provide the switch with disconnect supervision, all calls with talk times that are less than an administrable threshold can be counted as abandoned calls. *CentreVu* CMS supports a phantom abandon call timer that can be administered to count calls with talk times less than 10 seconds as a phantom abandoned call.

The Phantom Abandon Call Timer can be set from 1 - 10 seconds. Any calls whose total talktime or connecttime is less than the set number of seconds are pegged as **PHANTOMABNS**, instead of **ACDCALLS**. The abandon time for phantom calls is the time:

- For splits: from the time the call queued until the agent or answering station hangs up.
- For VDNs: from the time the call encountered the VDN until the agent or answering station hangs up.
- For vectors: from the time the call entered the vector until the agent or answering station hangs up.

When a call leaves a vector via a “route to split” command, the call is not pegged as an outflow, and can be pegged as a phantom abandon call if the call duration is shorter than the administered phantom abandon time.

The database item **PHANTOMABNS** records the total number of such calls. Also, these calls are counted as abandoned calls (**ABNCALLS**) rather than answered calls (**ACDCALLS**). The abandon time for these calls is equivalent to the time elapsed when the agent released the call.

When the phantom abandon call timer is not enabled, short ACD calls are not counted as phantom abandons, and the values of the **PHANTOMABNS** database items are 0.

Any call that has been put on HOLD, TRANSFERRED, or CONFERENCED is not recorded as a phantom abandon, even if it’s duration is less than the setting of the phantom abandon call timer.

## Direct Agent Calls (Generic 3)

With the proper class-of-restriction settings, calls to agent login IDs can be tracked as direct agent calls. These calls are queued to a specific agent and are tracked as a special type of ACD call for the agent.

The first measured skill a logical agent is logged into (whether primary or secondary) is used by CMS to track non-ACD (direct agent) calls unless the agent has an ACD call on hold and the agent is not yet available for other ACD calls. In this case, the call is counted for the skill associated with the held ACD call.

CMS tracks the queue time for the direct agent call to the agent and the skill the call queues to unless that skill is unmeasured.

**Note** It is recommended to either expand the queue size for the first skill the agent logged into or to assign a special “direct agent” skill as the first primary skill for all logical agents so that the queue slots for the other skills the agent is logged into are not used by direct agent calls.

- **Agent Tables** — The agent tables separate direct agent calls from skill calls, and direct agent call tracking provides the same information as other agent calls.

**Note** The standard real-time and historical reports combine direct agent calls and split/skill calls. For agents, you can separate these items by creating a custom report. See the *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document for custom report creation information.

- **Split/Skill Tables** — The Split/Skill tables keep the following direct agent call information:
  - Number of direct agent calls in queue
  - Number of direct agent calls ringing
  - Oldest direct agent call
  - Number of agents on direct agent calls or in direct agent after call work
  - Direct agent calls using the skill queue slots
  - Agent time on direct agent calls is tracked as OTHER time in skill tables
  - No call data is kept for direct agent calls.
- **VDN/Vector Tables** — The VDN and vector tables include direct agent calls with skill calls as ACD calls.

## Personal Call Tracking (PCT)

CMS split and agent data now reflect calls made with another call on hold.

The Personal Call Tracking (PCT) feature on the Generic 3 and Generic 2.2 switches sends CMS information to track all personal calls an agent makes and receives, including calls made or received when the agent has a call on hold.

Older switches did not notify CMS when an agent put an ACD call on hold, so agent time with an ACD call on hold was counted as ACD talktime. There was also no tracking of any calls an agent may have made (for example, to consult with a supervisor or to transfer or conference an ACD call) or received while the ACD call was on hold.

With the PCT feature, CMS tracks calls an agent makes or receives with a call on hold. Calls are tracked as AUX IN or AUX OUT calls. Time is tracked as OTHER or AUX.

If you upgraded from an older switch release to a Generic 3 or Generic 2.2 switch, you will see the following data tracking changes:

- An increase in the number of extension in/out calls made or received by agents, if agents make or receive calls while they have a call on hold.
- An increase in agent time on AUXIN/AUXOUT calls.
- A drop in average talktime for extension out calls, if agents conference and transfer calls often, since time spent in AUX for conferences and transfers is very short (a matter of seconds).
- A drop in the average talktime on ACD calls, if agents put calls on hold, since the time on hold is no longer included as ACD talktime.

When an agent places a call on hold, the agent returns to his/her previous state before the call unless the previous state was AVAIL. If the agent was in the AVAIL state, the agent is placed in the OTHER state until the agent dials a valid number (if the number dialed is invalid, the agent remains in OTHER), reconnects with the held call, or the held call abandons. When the agent reconnects to the held call, the original agent state for the call displays.

Figure 2-1 shows how *CentreVu* CMS tracks calls on hold.

Since agents do not have a hold state and hold time is associated with a call placed on hold, agent states during hold reflect the current activity of the agent.

	Agent answers ACD call	Agent holds call, dials supervisor	Agent talks to supervisor	Agent Reconnects to held ACD call	Call ends
S85/G2.1/G1	↓ I_ACDTIME	↓	↓	↓	↓
G2.2 (R3V1 CMS)	I_ACDTIME	I_AUXTIME	I_AUXOUTTIME	I_ACDTIME	
G3 (R3V1 CMS)	I_ACDTIME	I_OTHERTIME	IAUXOUTTIME	I_ACDTIME	
G2.2 (R3V2/ CentreVu CMS)	I_ACDTIME	I_AUXTIME, I_ACDAUX_OUTTIME	I_AUXOUTTIME, I_ACDAUX_OUTTIME	I_ACDTIME	
G3 (R3V2/ CentreVu CMS)	I_ACDTIME	I_OTHERTIME, I_ACDOTHERTIME	I_AUXOUTTIME, I_ACDAUX_OUTTIME	I_ACDTIME	

**Figure 2-1: Hold Tracking for Supervisor Assist Example**

Hold calls are tracked with the following database items:

- **HOLDTIME** is the time the call spent on hold.
- **HOLDCALLS** is the number of calls that were placed on hold at least once.
- **HOLDABNCALLS** is the number of calls that abandoned while on hold.
- **I\_OTHERTIME** is the time during the collection interval that the agent was doing other work.

For Generic 3, this includes time while in the Auto-In or Manual-In mode during which the agent put a call on hold and performed no further action, the agent placed a call or activated a feature, or a personal call rang with no further activity.

**PCT and Abandoned Calls**

VDN calls that route to extensions and are then abandoned are counted as abandoned calls for the VDN.

**PCT and Transferred and Conferenced Calls**

- Transferred and conferenced calls are tracked as held calls while the call(s) wait to be transferred or added to a conference.
- When an agent ends a conference call, the agent returns to the call state prior to setting up the conference.
- If an agent is talking, places the ACD call on hold to transfer the call, and then completes the transfer, the agent goes to the AVAIL state (Auto-In) or to ACW (Manual-In) following the transfer.
- Transferred or conferenced unmeasured split, trunk group, or VDN calls are now tracked. Prior to PCT, these calls were not tracked.

## PCT and Audio Difficulty

You now get the trunk associated with audio difficulty for personal calls if the trunk group is measured. Prior to PCT, audio difficulty was restricted to ACD calls.

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## Call Records

*CentreVu* CMS provides detailed call history reporting from internal and external call records. For example, you might have a caller that complained about being put on hold three times and then transferred. Call Records lets you review the path the call followed to determine if there is a problem.

**Internal** call records reside on CMS. The standard CMS internal call records are limited to a maximum of 5000 records.

**Note**

To protect the real-time processing on CMS, internal call records can only be collected if your call center's traffic is under 400 calls in 20 minutes.

**External** call records is an optional external call record collection and export application which allows you to collect and store more information than you can internally to CMS. For information on external call records, see the *CentreVu™ CMS External Call History Interface* (AT&T 585-215-804) document.

**Note**

The Call Records report menu item will only appear on your Historical Reports menu if you have internal call records.

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## R3 CMS to *CentreVu* CMS Migration

When you migrate R3.0 CMS data to *CentreVu* CMS, you need to be aware of the following:

- All CMS user IDs must be lowercase.
- Obsolete database items
  - I\_AUXTIME in the **agent** table was removed because it is a duplicate of TI\_AUXTIME (these values were identical). You will need to change any **agent** custom report references to I\_AUXTIME to TI\_AUXTIME.
  - Split/skill custom reports that use I\_AUXTIME should **not** be modified to refer to TI\_AUXTIME because TI\_AUXTIME does not exist in the split/skill tables.
  - Custom reports with obsolete database items will be flagged, and the obsolete columns need to be removed or changed.
  - Dictionary calculations with obsolete database items in their formulas will be flagged, and these columns need to be removed.

<b>Note</b>
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If you have a custom report that will not run, check to see if any calculation is using an obsolete database item.

- It is your responsibility to migrate *INFORMIX*\* data, in addition to CMS data.
- All conflicts with report, timetable, and shortcut names will be reported in the customer migration log and conflicting names will have temporary new names. You will need to resolve these conflicts.
- All conflicts in the Dictionary and Main Menu addition items are discarded. These conflicts are reported in the customer migration log.
- In a multi-ACD configuration, if you try to migrate a CMS login ID to a target machine that already has that same login ID, the migrating login ID will **not** be migrated. However, any files (custom reports, timetables, shortcut, etc.) under those login IDs will be migrated and the ownership will be changed to *cms*. You must recreate the CMS user IDs in User Permissions: User Data window and then change ownership of the files to the appropriate CMS login ID.

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

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# Data, Database Items, and Calculations

The following data, database items, and calculations have changed between R3.0 CMS and *CentreVu* CMS.

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## Data

The following paragraphs outline the major data changes between R3.0 CMS and *CentreVu* CMS, including:

- Transferred and Conferenced Calls
- Audio Difficulty
- Abandoned Calls
- Non-ACD Calls
- Direct Agent Calls (G3 with EAS)
- Personal Calls
- Personal Call Tracking (PCT)
- Trunk State and Calling Agent
- Trunk Data
- Trunk Groups
- Adjunct Routing
- AUX Work vs. AUX IN (Generic 2.2 without EAS or System 85)
- Multiple Call Handling (Generic 3 Version 2 and later)
- Call History Table
- Switch Translation Table Corruption
- Vectoring
- Agent States
- Busy Out the Link to CMS
- CentreVu CMS Configuration
- Hold Calls/Agent States.

## Transferred and Conferenced Calls

- Transferred and conferenced calls are tracked as held calls while the call(s) wait to be transferred or added to a conference.
- When an agent ends a conference call, the agent returns to the call state prior to setting up the conference.
- If an agent is talking, then places the ACD call on hold to transfer that call, and then completes the transfer; the agent then goes to the AVAIL state (Auto-In) or to ACW (Manual-In) following the transfer.
- Transferred or conferenced unmeasured split, trunk group, or VDN calls are now tracked. Prior to PCT, these calls were not tracked.
- *CentreVu* CMS measures ABANDON calls that occur when a call is conferenced.

## Audio Difficulty

You now get the trunk associated with audio difficulty for personal calls if the trunk group is measured. Prior to PCT, audio difficulty was restricted to ACD calls.

## Abandoned Calls

VDN calls that route to extensions and are then abandoned are counted as abandoned calls for the VDN.

## Non-ACD Calls

The first measured split or skill an agent is logged into is used by CMS to track non-ACD calls unless the agent has an ACD call on hold, and the agent is not yet available for other ACD calls. In this case, the call is counted for the split or skill associated with the held ACD call.

## Direct Agent Calls (G3 with EAS)

With the proper class-of-restriction settings, calls to agent login IDs can be tracked as direct agent calls. These calls are queued to a specific agent and are tracked as a special type of ACD call for the agent.

Direct agent calls queue to the agent but use a queue slot in the first primary skill the agent is logged into. CMS tracks the queue time for the direct agent call to the agent and the skill the call queues to, unless that skill is unmeasured.

For more information, see the "Differences and Enhancements Overview" section of this chapter.

## Personal calls

The first measured skill a logical agent is logged into (whether primary or secondary) is used by CMS to track non-ACD calls unless the agent has an ACD call on hold, and the agent is not yet available for other ACD calls. In this case, the call is counted for the skill associated with the held ACD call.

## Personal Call Tracking (PCT)

Personal Call Tracking (PCT) offers the following additional data tracking capabilities:

- Data is now available for calls on hold, time for calls on hold, and calls abandoned from hold. Without PCT, time for calls on hold was counted as talktime.
- CMS split and agent data now reflect calls made while another call is on hold.
- When an agent places a call on hold, the agent returns to his/her previous state before the call unless the previous state was AVAIL. If the agent was in the AVAIL state, the agent is placed in the OTHER state until the agent dials a valid number (if the number dialed is invalid, the agent remains in OTHER), reconnects with the held call, or the held call abandons. When the agent reconnects to the held call, the original agent state for the call displays.
- Agents do not have a **hold** state. Hold time is associated with a call placed on hold. Agent states reflect the current activity of the agent.
- Hold time (HOLDTIME) is the time the call spent on hold. HOLDCALLS is the number of calls that were placed on hold at least once, and HOLDABNCALLS is the number of calls that abandoned while on hold.
- I\_OTHERTIME is the time during the collection interval that the agent was doing other work.

For Generic 3, this includes time while in the Auto-In or Manual-In mode during which the agent put a call on hold and performed no further action, the agent placed a call or activated a feature, or a personal call rang with no further activity.

- When an agent dials a valid extension, the agent's state changes to AUX OUT (if the agent was in AUX or OTHER) or to ACW OUT (if the agent was in ACW).
- An increase in the number of extension in/out calls made or received by agents, if agents make or receive calls while they have a call on hold.
- Agent time on AUXIN/AUXOUT calls will increase.
- If agents do a lot of conferences and transfers, the average talktime for extension out calls will probably drop, since time spent in AUX for conferences and transfers is very short (a matter of seconds).
- The average talktime on ACD calls will drop if agents put calls on hold, since the time on hold is no longer included as ACD talktime.

For more information, see the "Differences and Enhancements Overview" section of this chapter.

## Trunk State and Calling Agent

The calling agent no longer affects the trunk state. The trunk state will display only the inbound call progress. If an agent makes a call, the trunk state will be SEIZED (not CONN). Also, if the calling agent puts a call on hold or

reconnects to the call, the trunk state will not change. *CentreVu CMS* will continue to track the outbound talktime and hold time, but the state of the trunk will not change.

## Trunk Data

- Trunk data will no longer be marked as incomplete if some trunks are marked as maintenance busy. This means data is still valid for use with the Forecasting Trunk Performance report.
- When you upgrade from R3.0 CMS to *CentreVu CMS*, it will appear that trunk CCS data has *disappeared* during the upgrade. In R3.0 the CCS calculations (which were based on trunk INTIME and OUTTIME, call-based data items) were wrong. These CCS values must be interval-based to make sense. *CentreVu CMS* software has new, interval-based items that are used to calculate CCS. The calculation used by standard reports to generate the CCS values was changed to use the new items. Therefore, your old data exist under the old data items. The new items were not populated with any data during the upgrade.

## Trunk Groups

- If you change a trunk group's termination point (via switch administration) while trunks in the group are actively carrying calls, the data are now correct. Previously, the data were not stored correctly.
- Trunk group status information (**NUMINUSE** real-time) is now correct for trunks which are audited as busy when the link is coming up.
- Any trunk group data that was migrated from Release 3.0 CMS is not included in any of the forecast tables.

When the trunk CCS calculation was corrected in Issue 1.4 of the CMS software, the data used by the Forecast Trunk Performance report had to be changed to correct the same trunk CCS data problem. Two new trunk group columns (`i_inocc` and `i_outocc`) were added to the trunk group tables in Issue 1.4. The migrated data do not contain data for the new columns. Migrated trunk group data will not be put in the new forecast tables.

When the Forecast Manager ran, it would fail when trying to re-collect data, because there were no data in these columns. The Forecast Manager will no longer fail, and you will be able to run the Forecasting Trunk Performance report on new data generated after the Issue 1.3 CMS software.

## Adjunct Routing

When an adjunct routes a call to a split queue or a direct agent queue, you will see an ADJROUTED call for the VDN and vector. Prior to *CentreVu CMS*, you did not see this.

**AUX Work vs. AUX IN (G2.2 without EAS or System 85 R2V4)**

If an agent puts a call on hold, transfers the call, or conferences the call, the agent is now put in AUX work. Prior to *CentreVu* CMS, the agent was put in AUX IN. The Agent Trace report will no longer show this transition.

**Multiple Call Handling (MCH) (G3V2 and later switches)**

With the Multiple Call Handling (MCH) feature, the agent state will change to OTHER if the agent does the following:

1. Has a call on hold
2. Then goes available
3. Receives a second call while the first call is on hold
4. Does not answer the second call
5. The second call is then redirected via the Redirection on No Answer feature, because the agent did not answer the call.

**Call History (crec) Table**

The **DURATION** column of the call history or `crec` table now stores data correctly. Prior to *CentreVu* CMS, on segments of calls which were transferred, the DURATION was wrong. Now one segment, usually the first, contains the total call time. Each of the segments will contain the valid time length for that segment.

**Switch Translations Table Corruption**

*CentreVu* CMS continues to collect data after switch translations table corruption is detected. When this corruption problem occurs, the *CentreVu* CMS data also become corrupted. Messages informing you of the table corruption problem appear in an Acknowledgment window on all active screens. The corruption problems are also logged into the Error Log. These error messages must be addressed to ensure that the corruption problem does not escalate. If the corruption problem is not resolved, table corruption messages will be displayed for the next person that logs in.

**Vectoring**

- *CentreVu* CMS supports the *converse* step in Generic 3 Version 2 and later switch releases.
- *CentreVu* CMS supports the *Return-to-VDN* vector command in *DEFINITY*® Generic 3 Version 3 switch releases.

**Agent States**

Agents using multiple skills are no longer reported in the OTHER state when they log out.

**Busying Out the Link to CMS**

You can now add, delete, or change measured trunks, trunk groups, agent extensions, agent login IDs, VDN extensions, splits, and skills (on a Generic 3 Version 2 and later switches) without busying out the link to CMS and losing CMS data.

## **CentreVu CMS Configuration**

*CentreVu CMS* tells the Generic 3 Version 2 and later switches how many of each facility it can support, and if an agent or the switch administrator attempts to exceed the CMS limits, they are blocked by the switch until the CMS configuration is increased. This means the agent is denied the ability to log in, and the switch administrator would not be able to make the change. In order to make the change, you need to put CMS into single-user mode with data collection off and then increase the storage parameters in the Data Storage Allocation window. When you return CMS to the multi-user mode with data collection on, CMS renegotiates the CMS configuration parameters with the switch, and the agent is allowed to log in, and the switch administrator is able to make the change.

## Database Items

The following database items have been added to or changed in *CentreVu* CMS:

### ACDAUXOUTCALLS

Applies to the historical agent tables.

The number of AUXOUTCALLS the agent made with at least one split/skill or direct agent ACD call on hold. This includes calls made to transfer or conference the ACD call. **ACDAUXOUTCALLS** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

### ACDAUXOUTCALLS

Applies to the historical split/skill tables.

The number of AUXOUTCALLS agents in the split/skill made with at least one split/skill ACD call on hold. For agents in multiple splits (Generic 3), the call is counted for the split/skill of the last ACD call the agent put on hold. ACDAUXOUTCALLS includes calls made to transfer or conference the ACD call. **ACDAUXOUTCALLS** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

### ACDONHOLD

Applies to the real-time agent table.

The number of direct agent and split/skill ACD calls on hold at the agent. **ACDONHOLD** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

System 85 R2V4, Generic 2, and Generic 3 switches.

### ACTIVECALLS

Applies to the real-time VDN table.

Switch-generated count of the number of active calls in the VDN. This includes only incoming trunk calls directly to the VDN. It does not include internal calls to the VDN, transfers to the VDN, or calls that route to the VDN after having been through another VDN.

Available on Generic 3 Version 4 switches.

### ASA

Applies to the real-time split/skill and VDN tables.

Switch-provided rolling average speed of answer for this VDN. This value is sent to CMS whenever it changes on the switch (when a call is answered).

Available on Generic 3 Version 4 switches.

## **DA\_INRING**

Applies to the real-time split/skill table.

The current number of direct agent ACD calls ringing at an agent in this split/skill. **DA\_INRING** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 3 switches.

## **DESTINATION**

If you create a custom report using the agent real-time database item **DESTINATION** (values are NULL, PBX, and OFF), it is now possible to see the distinction between agent calls that remain on the switch (PBX) and calls that go outside the switch (OFF). Prior to *CentreVu* CMS, these calls appeared to be PBX even if they were OFF.

## **EWTHIGH**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at high priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at HIGH priority until being served. Time spent ringing at the agent is not included in this estimate.

Available with Generic 3 Version 4 switches.

## **EWTLLOW**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at low priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at LOW priority until being served. Time spent ringing at the agent is not included in this estimate.

Available with Generic 3 Version 4 switches.

## **EWTMEDIUM**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at medium priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at MEDIUM priority until being served. Time spent ringing at the agent is not included in this estimate.

Available on Generic 3 Version 4 switches.

## **EWTTOP**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at TOP priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at TOP priority until being served. Time spent ringing at the agent is not included in this estimate.

Available on Generic 3 Version 4 switches.

<b>HOLDACDCALLS</b>	<p>Applies to the historical VDN tables.</p> <p>The number of split/skill or direct agent ACD calls that were placed on hold at least once. <b>HOLDACDCALLS</b> is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.</p> <p>Generic 2, Generic 3, System 85 R2V4 switches.</p>
<b>HOLDACDTIME</b>	<p>Applies to the historical VDN tables.</p> <p>The time spent by split/skill or direct agent ACD callers on hold. <b>HOLDACDTIME</b> is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.</p> <p>Generic 2, Generic 3, System 85 R2V4 switches.</p>
<b>HOLDTIME</b>	<p><b>HOLDTIME</b> is not tracked for a VDN call that terminates to an unmeasured agent or extension. The time is tracked as <b>CONNTALKTIME</b>. Prior to <i>CentreVu</i> CMS, when an unmeasured agent put a call on hold, CMS could not determine if it was the calling agent or the answering agent that put the call on hold, and CMS would make a “best guess”. This “best guess” could be wrong which meant the call was ignored.</p>
<b>I_ACDAUX_OUTTIME</b>	<p>Applies to the historical agent tables.</p> <p>Time during the collection interval that the agent spent dialing (Generic 2.2) and talking on AUXOUT calls with at least one split/skill or direct agent ACD call on hold. <b>I_ACDAUX_OUTTIME</b> is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.</p> <p>Generic 2.2 and Generic 3 switches.</p>
<b>I_ACDAUXINTIME</b>	<p>Applies to the historical agent tables.</p> <p>Time during the collection interval that the agent spent talking on AUXIN calls with at least one split/skill or direct agent ACD on hold. <b>I_ACDAUXINTIME</b> is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.</p> <p>Generic 2.2 and Generic 3 switches.</p>

**I\_ACDOTHERTIME** Applies to the historical agent tables.

Time during the collection interval that the agent spent in the OTHER state (dialing an outgoing call [Generic 3], with a ringing personal call [Generic 3], or with calls on hold and with no other state selected) with at least one split/skill or direct agent ACD call on hold. **I\_ACDOTHERTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

**I\_ACDAUX\_OUTTIME** Applies to the historical split/skill tables.

Time during the collection interval that the positions spent dialing (Generic 2.2) and talking on AUXOUT calls with at least one split/skill ACD call on hold. **I\_ACDAUX\_OUTTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

**I\_ACDAUXINTIME** Applies to the historical split/skill tables.

Time during the collection interval that positions were talking on AUXIN calls with at least one split/skill or direct agent ACD on hold. **I\_ACDAUXINTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches

**I\_ACDOTHERTIME** Applies to the historical split/skill tables.

Time during the collection interval the positions spent in the OTHER state (dialing an outgoing call [Generic 3], with a ringing personal call [Generic 3] or with calls on hold and with no other state selected) with at least one split/skill ACD call on hold. **I\_ACDOTHERTIME** is a PCT database item. It does not appear on any standard reports, but you can use it in custom reports.

Generic 2.2 and Generic 3 switches.

**INTRVL** **INTERVAL** in R3.0 has been changed to **INTRVL** in *CentreVu* CMS.

**MOVEPENDING** Applies to the real-time agent table.

Keeps track of a pending move for an agent. This database item can be populated by either the CNRCODE or the NAGLOGON message. When a CNRCODE message is sent to CMS in response to a MVAGSTFD message, if the RCODE for an agent is 45, indicating pending, the corresponding **MOVEPENDING** database item will be set to 1. Upon receiving the

NAGLOGON message for this agent, CMS will reset the **MOVEPENDING** bit to the value of the “p” bit in the NAGLOGON message.

Once set, the **MOVEPENDING** database item is cleared for an agent when the conditions that caused the move to pend are resolved and CMS attempts to make the requested change. The database item is cleared whether or not CMS successfully completes the requested change.

Available on Generic 3 Version 4 and later switches.

## **ONACDAUXOUT**

Applies to the real-time split/skill table.

Current number of **POSITIONS** that are on **AUXOUT** calls with one or more ACD calls on hold for this split/skill. **ONACDAUXOUT** is a subset of **ONAUXOUT**. This item was added to identify the number of agents in a split who currently have an ACD call on hold and are on an outbound extension call.

## **PENDINGSPPLIT**

Applies to the real-time agent table.

Split/skill to which the agent will be moved. The move is pending until the agent is idle. In the case of a change of up to four skills in one request, **PENDINGSPPLIT** is set to the first new skill for the agent. It is possible for **PENDINGSPPLIT** to be blank or 0, even when **MOVEPENDING** is set. This can happen when the link to the switch comes up and a move is pending for an agent.

Available on Generic 3 Version 4 switches.

## **PHANTOMABNS**

Applies to the real-time agent, split/skill, VDN, and vector tables.

Number of ACD calls with talktime less than the value of the phantom abandoned call timer.

Available on Generic 3 switches.

## **RETURNCALLS**

Applies to the historical VDN tables.

Number of calls that reached this VDN via the VDN return destination feature.

Available on Generic 3 Version 3 switches.

**TYPE**

Applies to the real-time Agent table.

In an EAS environment, **TYPE** is used to list the skill type (“p” for primary or “s” for secondary) of agent skills when the Find One and List All actions are specified for the ACD Administration: Multi-Agent Skill Change window.

Available on Generic 3 Version 4 switches with EAS.

**VDISCCALLS**

Applies to the historical VDN and vector tables.

Number of calls forced disconnected because the vector disconnect timer timed out or because the call reached the vector “stop” command without being queued.

Available on Generic 3 Version 2 and later Generic 3 switches.

## Calculations

- The <CALLS\_PER\_POS\_SUM> calculation is now:  
$$(\text{sum}(\text{INTRVL} * 60) * \text{sum}(\text{ACDCALLS})) / \text{sum}(\text{I\_STAFFTIME}).$$
- The <PERCENT\_SLVL\_SPL\_SUM> calculation has been added. The calculation was added to address the % Within Service Level report column in the Split Status historical report. The calculation definition is:

$$100 * (\text{sum}(\text{ACCEPTABLE}) / \text{sum}(\text{CALLSOFFERED}))$$

- The <INT\_AUXTIME> calculation has been added. The calculation is used to display the stafftime in the Historical Reports Split/Skill Report daily report. The calculation definition is:

$$\begin{aligned} & \text{I\_STAFFTIME} - \text{I\_AVAILTIME} - \text{I\_ACDTIME} - \text{I\_ACWTIME} - \\ & \text{I\_OTHERTIME} - \text{I\_RINGTIME} - \text{I\_DA\_ACDTIME} - \\ & \text{I\_DA\_ACWTIME} \end{aligned}$$

---

## Real-Time Reports

For additional information on the Real-Time Reports subsystem, please refer to Chapter 3 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### **New Real-Time Multi-ACD reports**

These reports allow you to access data from multiple ACDs on the same reports. This could be different splits/skills from different ACDs.

---

### **New Queue/Agent Status report**

This report combines the Queue/Agent Summary report with the Agent report to show overall split/skill information, such as the number of calls waiting, oldest call, percent answered within service level, and the number of agents available, on ACD calls, staffed, with calls ringing, and on after call work. This report also shows what each agent in the split/skill is doing.

## Real-Time Split Status and Skill Status Reports

The Split Status and Skill Status reports include expected wait time information. Figure 2-2 and Figure 2-3 show what the reports look like.

If the *CentreVu* CMS is connected to a pre-Generic 3 Version 4 switch, or a Generic 3 Version 4 switch without vectoring, the Expected Wait Time heading appears, but the field is always blank.

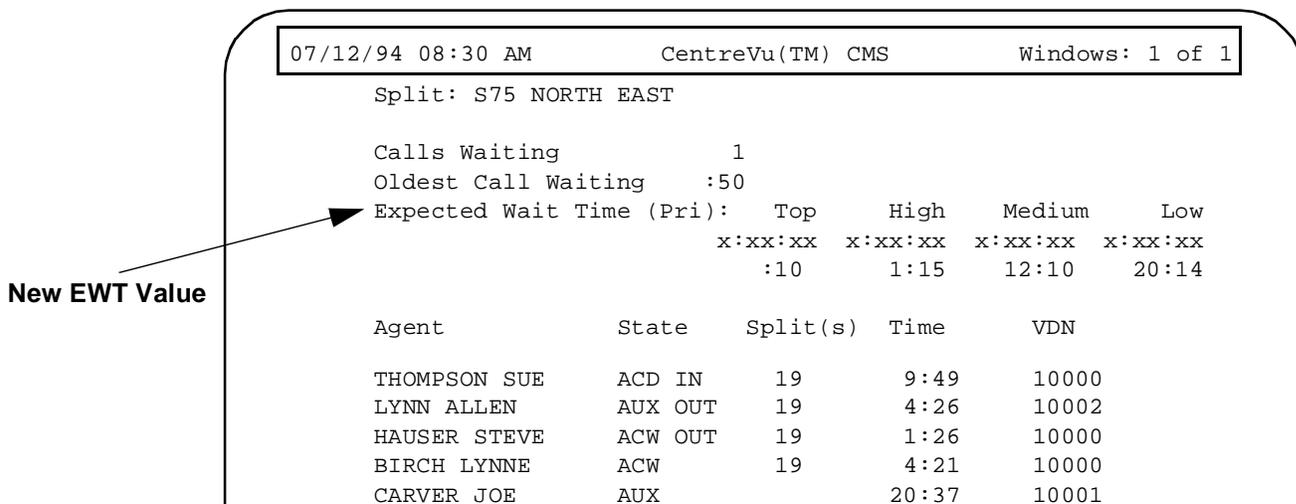


Figure 2-2: Split Status Report

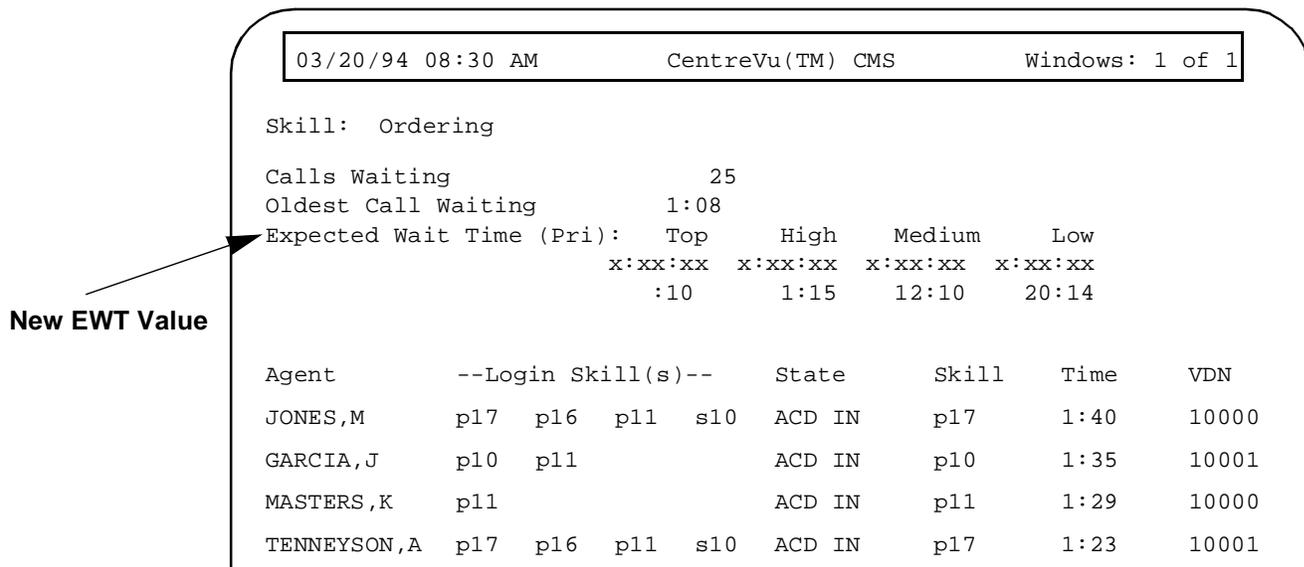


Figure 2-3: Skill Status Report

## Real-Time VDN Report

The VDN report includes the number of active calls associated with a VDN. The column is *Active VDN Calls*. Figure 2-4 shows the updated VDN report.

If the *CentreVu* CMS is connected to a pre-Generic 3 Version 4 switch, or a Generic 3 Version 4 switch without vectoring, the *Active VDN Calls* column still appears, but the fields are always blank.

03/20/94 08:30 AM			CentreVu(TM) CMS				Windows: 1 of 1				
VDN	Calls Wait	Oldest Call	Avg Speed Answer	Calls Aban	Avg Aban Time	ACD Calls	Avg ACD Talk	Busy/Disc	VDN Flow In	VDN Flow Out	Active VDN Calls
Billing	16	1:05	:40	0		40	4:01	0	0	0	
Order	1	2:20	:27	4	:58	17	3:52	1	0	0	23
Compla	16	:55	:38	0		39	3:45	0	0	0	
Legal	2	3:00	:20	2	1:50	50	2:28	0	1	0	20
Educat	20	:50	:36	0		37	4:46	0	0	0	


  
**New Active VDN Calls Column**

Figure 2-4: VDN Report

## Changes Due to EAS

- On menus and input fields, Split now displays as Split/Skill. Valid minimum and maximum values are determined by switch type and release (for Generic 3 Version 2, skills range from 1 to 255; and on Generic 2.2, skills range from 10 to 609).
- New Skill Status report shows logged-in skills (different from the Split Status report).
- New VDN Skill Preference report shows the call handling for the VDN as a whole and lists the number of calls handled by each of the VDN skill preferences.

---

## Historical Reports

For additional information on the Historical Reports subsystem, please refer to Chapter 4 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### **Set Destination Action Item**

The `set dest` action list item has been removed from the action list and the information now appears on the input window for all historical reports (Reports, Dictionary, Exceptions, ACD Administration Configuration, and Forecasting subsystems).

This change lessens the confusion between Timetable tasks and running a report. Also, you can run up to 100 reports on a Timetable, even if you send the output to different destinations.

---

### **Changes Due to EAS**

- On menus and input fields, Split now displays as Split/Skill. Valid minimum and maximum values are determined by switch type and release.
- New VDN Skill Preference report.
- The Agent Login/Logout report shows skills logged into by agents.

---

## Timetables and Shortcuts

For additional information on the Timetable and Shortcut Screen-Labeled Keys (SLKs), please refer to Chapter 5 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### General Changes

- The Timetable/Shortcut subsystem has been enhanced and now provides the following:
  - `Get contents` provides a window that lists all the tasks associated with a timetable/shortcut and allows you to enter the task number(s) that you want to copy, delete, global edit, or modify.
  - You can also add new tasks with `Get contents`. The `Add tasks` action returns you to the CMS Main Menu to add tasks.
  - The `Keep` SLK `Stop` is still used to stop adding to a timetable/shortcut.
  - The `Global edit` action allows you to change the date, time, or printer for all tasks on a timetable. `Global edit` is not available for shortcuts.
  - `Modify` brings up a window for each task to allow you to modify the task. You can modify the input values for the task, the action for the task, or both the input and action. It is not possible to change the ACD associated with a task using `Modify`. It is possible to change the “Current ACD” in `Keep` mode.
  - You can also copy specific tasks within the same timetable/shortcut.
- The `Keep` SLK no longer includes `Delete`, `Next`, and `Previous`.
- When scheduling VDN moves, you need to group all VDN moves together on a single timetable or schedule them far enough apart so that one move completes before the next one starts.
- You can now create shortcuts with any report that contains the `Set destination` field. The `Set destination` field must be set to `Terminal` for the shortcut to execute.
- Timetables with more than 33 tasks will now complete all tasks.

- When editing shortcuts, any primary windows with input fields for noncurrent tasks are not visible. This means that input values can be changed only for the task currently being edited. However, shortcut windows without input fields for noncurrent tasks can be moved and sized.
- A task can now be specified only once in the `Task number(s)` field.
- To add new tasks to the beginning of a Timetable or Shortcut, leave the `Task number(s)` field blank and the task will be added before task number 1. Also, if you have a timetable with zero (0) tasks and you want to add tasks, leave the `Task number(s)` blank. Field help also describes this action.
- Setting user defaults does not cause timetables to fail.
- The `starting` message window is now removed immediately if a task cannot be started when trying to add it to a timetable or shortcut.
- You are now warned that a shortcut will not run for a task that produces an Acknowledgment window when doing an `Add` or `Edit`.
- The correct ACD is now displayed when you run timetables or shortcuts with multiple tasks, and each task has a different ACD.
- You should always create a multi-ACD timetable or shortcut by entering the Keep mode from your default login ACD and then changing ACDs from your default login ACD. If you create a timetable or shortcut from an ACD other than your default login ACD before entering the Keep mode, the menus will be for the wrong ACD.

You may want to consider creating separate timetables or shortcuts for each ACD.

- Timetables and shortcuts no longer reset the ACD to the user's login ACD when entering the Keep mode.
- A `Current ACD` column has been added to the Timetable: Get Contents window.

What is displayed in the `Current ACD` field will always be the current ACD active at the time the tasks are stored. For some tasks (for example, those that are for all ACDs or those that have an ACD input field), this field may or may not be used by the task.

- The `List all` and the `Find one` actions correctly restrict searches while in Timetable Keep mode.

Prior to *CentreVu* CMS, when you created a timetable and added or deleted tasks, the CMS database was not limiting searches to the data in the input window. For example, if you created a timetable, added the task to retrieve User Permissions: Split/Skill Access, then performed a List all (asking the system to list all of the Split/Skill Access matches to the values on the input window), CMS would list all of the Split/Skill Access information, not just the ones that matched the information on the input field.

---

## Dictionary

For additional information on the Dictionary subsystem, please refer to Chapter 6 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### Calculations and Constants

- Calculations can now have the “unique” keyword inside the calculation.
  - Calculation names and constant names can no longer contain embedded blanks. All other Dictionary names can still contain embedded blanks.
- 

### Agent Groups Window

- When adding a range of agent login IDs in the Agent Groups window, an Acknowledgment window is displayed if one or more of the logins in the range already exists. The Acknowledgment window displays how many IDs already existed and how many were added.
- 

### Global Search Window

- You can now use \* (asterisk) or a blank in the Global Search window to match all entries.
- 

### Changes Due to EAS

- Split/Skill names.
- Assign names to skills so skill names appear on CMS reports.
- Split/Skill string values.
- Change the descriptive words that appear on the Skill Call Profile reports. The *words* are used to describe the value of the data.

---

## Exceptions

For additional information on the Exceptions subsystem, please refer to Chapter 7 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### General Changes

- In the past, certain timing exceptions were triggered incorrectly, either too often or not often enough. For example, a talktime exception could be triggered every time an agent reconnected to a held call, instead of just once for a given call. Such problems have now been fixed. You should see the following:
  - Exceptions that were pegged too frequently in the past (like time on hold and ringtime exceptions when calls are transferred using unmeasured trunks) will now be pegged appropriately.
  - Exceptions that were pegged too infrequently in the past (like time on AUXOUT call, agent and split time in queue, and VDN time at agent) will now be pegged appropriately. You may see these exceptions pegging more often. Monitoring some exceptions, for example, agent and split time in queue, may affect the performance of your system.
  - Exceptions will no longer apply to several different types of calls. For example, time on hold now applies to ACD calls only. Previously, this count included ACD calls and extension calls.
  - Prior to *CentreVu CMS*, with *Agent talktime exceptions*, if an agent was talking on an ACD call and put a call on hold, the call was pegged as an exception if the agent did not talk for the minimum amount of time. This no longer occurs.
- The screen behavior (beep or flash) when an exception arrives now matches the behavior specified in the **Commands** SLK Options: Exception Notification window.

---

## Agent Exceptions

- Two new exceptions have been added.
  - “Agent logged out with calls active/held” can be administered in the Agent Exceptions Administration window
  - “Agent denied login to some skills” is always enabled and will **not** appear on the administration window.

Neither exception has a threshold count associated with it. Both exception conditions may appear in the Agent Exceptions report. You can generate the report to include or exclude either exception.

- A new exception for the Redirection on No Answer feature that indicates an agent has been put into the AUX work mode automatically because the agent did not answer an ACD call that was ringing at the agent's station, and the switch attempted to re-queue the call automatically to a split/skill. This exception applies only to the Generic 3 Version 2 switch.
- The Agent Exceptions for time in state have been redefined so that the following agent exceptions can occur multiple times during an interval. The threshold counter is no longer cleared at the start of each data collection interval. Instead, it is cleared when the agent state causing the exception changes or when the agent logs off.
  - Time available
  - Time on inbound ACD call (min)
  - Time on inbound ACD call (max)
  - Time in after call work
  - Time on inbound ACW call
  - Time on outbound ACW call
  - Time in AUX work
  - Time on inbound AUX call
  - Time on outbound AUX call
  - Time on outbound ACD call (min)
  - Time on outbound ACD call (max)
  - Time ACD call spent on hold
  - Time ACD call spends ringing
  - Time on direct agent call
  - Time call waited in direct agent queue
  - Time on external outbound ACW call
  - Time on external outbound AUX call

- Agent exceptions now track when:
    - An agent enters an invalid call work code (CWC).

When this exception is administered and an agent enters an invalid CWC (one that has not been administered), an entry is made in the Agent Exceptions Historical Report.
    - An agent could not be logged into a skill. (EAS only)

When this happens, an entry is logged in the Agent Exceptions Historical Report.
- 

## Split/Skill Exceptions

Split/Skill Exceptions now track:

- Rolling Average Speed of Answer (ASA).

The value in the `Average speed of answer (seconds)` exception field was calculated internally to CMS. This remains the same. However, the switch now sends the rolling ASA to *CentreVu* CMS via the ASA message. When CMS receives, for a split/skill, and ASA from the switch that exceeds the time limit specified in the Split/Skill Exception Administration, an occurrence is pegged. The Rolling ASA is triggered once per interval and cleared at the end of each interval.
  - Expected Wait Time (EWT).

These exceptions can be administered, even if you do not have the applicable features.

EWT exceptions are triggered once per interval when the time limit exceeds the administered threshold, and is cleared at the end of each interval.
- 

## VDN Exceptions

VDN Exceptions now track:

- Rolling Average Speed of Answer (ASA).

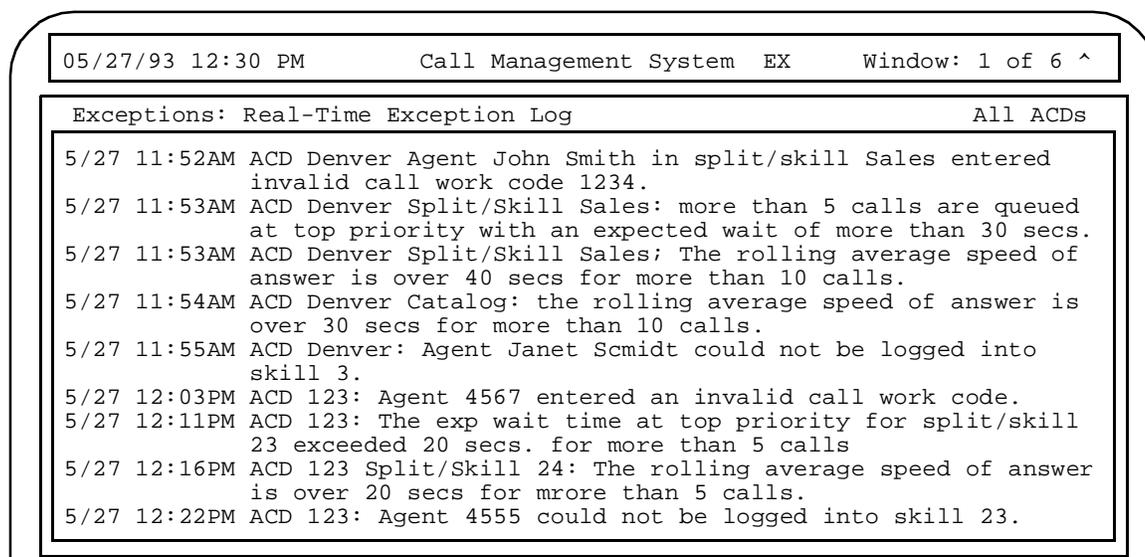
The switch now sends the rolling ASA to *CentreVu* CMS via the ASA message. When CMS receives, for a VDN, and ASA from the switch that exceeds the time limit specified in the VDN Exception Administration, an occurrence is pegged. The Rolling ASA is triggered once per interval and cleared at the end of each interval.

## Changes Due to EAS

- Split exceptions are now Split/Skill exceptions.

## Real-Time Exceptions Log

- The Exception Count, exception alerting, and entries in the exception log are for all ACDs for which the user has exceptions permissions.
- The Exceptions Log now specifies the ACD where the exception occurred.
- The additions to Agent, Split/Skill and VDN exceptions administration result in additional entries to the Real-Time Exceptions Log. Figure 2-5 shows an example of each possible new entry.



**Figure 2-5: Real-Time Exceptions Log**

---

## ACD Administration

For additional information on the ACD Administration subsystem, please refer to Chapter 8 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Vectoring

- **Vector Steps**

Vector steps are now shown in abbreviated (packed) format, regardless of the type of switch the *CentreVu* CMS is connected to.

- **Vector Contents**

- The “#” is now allowed in a “route to” number and “goto” step with a digit equals clause. If “#” is entered, it must be the first and only character. The “#” is valid for Generic 3 Version 2 switch as a special custom development and will be generally available on all Generic 3 Version 2 and later switches.
- You can now specify a skill number with the “oldest call waiting” condition.
- If you enter an invalid value for a vector step, an error message will appear. If you want to erase the entire vector with **Ctrl Z**, the error message will disappear, the steps in the vector will disappear, and the cursor will move to the first field of the next step.

- **Vector Commands**

The following vector commands have been changed from the split usage to skill usage with EAS. These commands can queue to a specific skill, or can reference a VDN skill preference, or can check the conditions in the skill.

- check backup skill
- go to step
- go to vector
- messaging skill
- queue to main skill.

- **Vector Configuration Report**

This report now correctly shows the primary skill preference of a VDN with an associated trunk group.

## VDN Call Profile

You now get a warning if the number of VDNs entered in the VDNs field in the VDN Call Profile window exceeds the number of measured VDNs administered in System Setup: Data Storage Allocation.

---

## Changes Due to EAS

From CMS, you can do the following at any time:

- **VDN Skill Preferences**

Change VDN skill preferences is a new menu item.

*Generic 2.2 Switch* — When the VDN skill preferences are changed on a Generic 2.2 switch, the new skill preferences take effect for the new calls to the VDN. Any calls currently in progress in the VDN at the time the change is made are processed with the *old* VDN skill preferences.

*Generic 3 Version 2 and later Switches* — When the VDN skill preferences are changed on Generic 3 Version 2 and later switches, the change takes effect immediately and can affect the processing of any calls currently in the VDN at the time of the change.

- **Change Agent Skills** (Generic 3 Version 2)

Add, change or delete agent skills using the Change Agent Skills window. Agent must log out and then back in for changes to take effect. Agent login IDs must be one to five digits in length. An agent can have up to four skills and each skill is assigned a type, either primary or secondary.

- Use the **Vector Contents** window to create, modify, or delete skill vectors.

- **Move Agent Extensions** (Generic 2.2 with EAS only).

This window allows you to move agent extensions between skill tens groups. It also allows you to get a list of the extensions assigned to a particular skill group. Valid entries in the Skill group field must be a positive integer ending in "0" representing a skill group number. The skill group 0 can be entered to list extensions assigned to skill 0, where they are measured, but are not members of any skill group. Extensions must be up to 5 digits.

- The **Vector Configuration** report contains VDN skill information and is called Vector Configuration with Skills on the report.

## Multi-Agent Skill Change Menu Option (G3V4 with EAS)

The Multi-Agent Skill Change menu item has been added to the ACD Administration subsystem menu for *CentreVu* CMSs that are connected to Generic 3 Version 4 switches with EAS.

When the Multi-Agent Skill Change menu option is selected, the window shown in Figure 2-6 displays. It allows you to change a skill for one or more agents.

The screenshot shows a terminal window titled "ACD Administration: Multi-Agent Skill Change" with a window ID of "acd1". The window contains several input fields and a menu of options. The input fields are: "Current skill:" followed by a blank line, "New skill\*:" followed by a blank line, "New skill type\*:" followed by an underscore character, and "Agent(s):" followed by a blank line. The menu options are: "Add", "Delete", "Find one", "List all", "Modify", "Next", and "Previous". At the bottom of the window, there is a note: "\*New skill, skill type not used for Find one or List all". The window title bar shows the date and time "09/18/95 08:30 AM", the system name "CentreVu(TM) CMS", and the window count "Windows 1 of 1".

**Figure 2-6: Multi-Agent Skill Change (G3V4 With EAS) Window**

## Move Extensions Between Splits (G3V4 non-EAS)

Prior to *CentreVu* CMS, you could assign extensions to more than four splits, but the agent could not log into four splits because CMS checked the extension assignments and not the split. This problem no longer occurs. You can now assign extensions to more than four splits, and CMS will also check the splits the agent is logged into, and the agent will be able to log into multiple splits (up to three or four depending on your switch release).

The Move Extensions Between Splits menu item has been updated for *CentreVu* CMSs that are connected to Generic 3 Version 4 switches without EAS. It now allows up to 32 agent extensions to be moved between splits *without* requiring the agents to log off. This command can still be used to move unstaffed agents. Figure 2-7 shows the Move Extensions Between Splits input window.

```

03/20/94 08:30 AM          Call Management System          Windows 1 of 1 ^
ACD Administration: Move Extensions Between Splits          ACD1
Split moving from (optional): _Custserv
Split moving to*: _Sales
Extensions: _2050-2060;2062
*\"Split moving to\" not used for Find one or List all
Find one
List all
Modify
Next
Previous
  
```

**Figure 2-7: Move Extensions Between Splits Window**

---

## User Permissions

For additional information on the User Permissions subsystem, please refer to Chapter 9 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### ACD Access Window

You can set up permissions for each user for each ACD (specific permissions on the ACD). Also, you can set up permissions (give the user permission to an entire ACD) by each ACD.

If a CMS user has read permission only to the User Permissions subsystem, the `Next` and `Previous` action list items will now appear as valid actions on the ACD Access window.

---

### User Data Window

If you change a CMS user from Normal to Administrator or vice versa in the User Data window, you need to manually change the feature access permissions for that user. The Feature Access window is not automatically updated, and it will display the original permissions assigned to the user.

The User Data window now accepts capital letters in the `Login ID` field.

---

### Changes Due to EAS

Grant skill access from the Split/Skill Access window.

---

# System Setup

For additional information on the System Setup subsystem, please refer to Chapter 10 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Data Storage Allocation

With *CentreVu* CMS, the numbers in the `Number of Agent login/logout records` field on the Data Storage Allocation window is the number of records you want to store, not the number of days as in the R3.0 CMS.

---

## Switch Setup

The following fields have been added to the Switch Setup window:

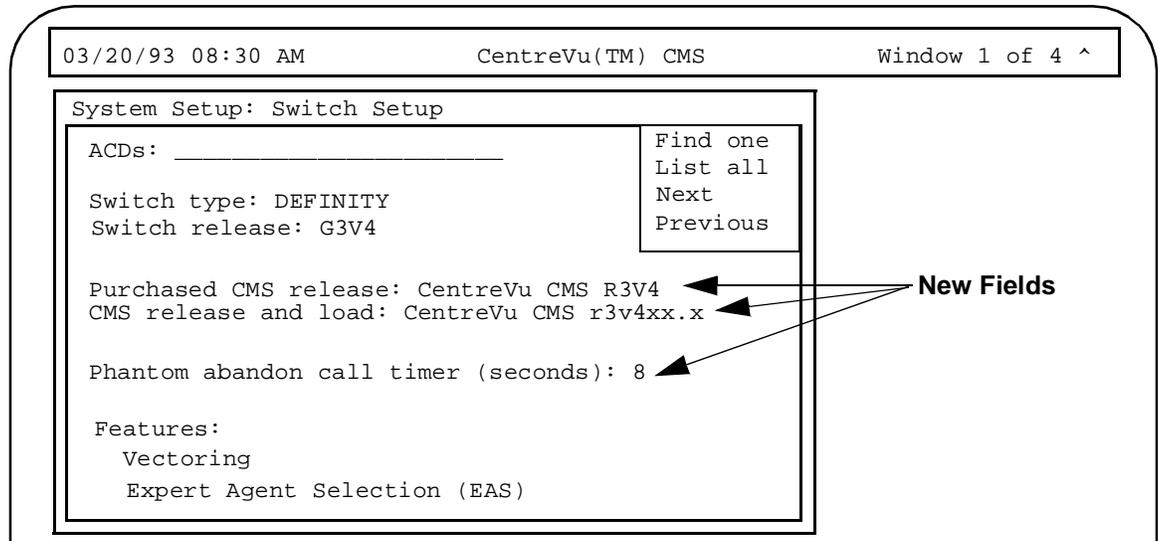
- Purchased CMS release:
- CMS release and load:



The schema for CentreVu CMS loads is `r3v4xx.x`, where `xx.x` designates the load name (for example, `r3v4af.i`).

- Phantom abandon call timer (seconds):

Figure 2-8 is an example of the window with the new fields.



**Figure 2-8: Switch Setup Window**

---

## Main Menu Addition

CMS no longer allows duplicate Main Menu Additions. Prior to *CentreVu* CMS, if you had a duplicate entry, CMS did not know which item to select. When you install *CentreVu* CMS, if you have duplicate Main Menu items, you should delete one and reenter the item with a different name.

---

## Migrate Data

The field `Does the data being migrated already exist on this machine? (y/n)` has been removed from this window, because it is no longer needed.

If a migration is restarted and data already exists, an error will be logged in the Migration Error Log along with a recommended procedure. No data will be lost if the migration is restarted.

---

## External Application Status

The External Application Status `List All` operation now correctly reports the status of applications that fail to start.

---

## Free Space Allocation

The System Setup: Free Space Allocation window no longer shows negative `Login/Logout Required Blocks` when a large number of agent login/logout records are specified.

---

## Maintenance

For additional information on the Maintenance subsystem, please refer to Chapter 11 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## ACD Status

You can now repeatedly select the `Translations` action item without encountering an error on the even-numbered attempts.

---

## Printer Administration

If you enter a print type other than compressed, pica, or elite in this window, an Acknowledgment window appears telling you that you entered something different, and will ask you if that is what you really want.

---

## Connection Status

When the link is down for several minutes (at least five), the `Connection` status may be `waiting session accept`. If this happens, you need to reboot the *CentreVu* CMS by logging in as root and performing the `shutdown -i6 -g0 -y` command.

---

## Back Up Data

The estimated number of backup tapes required for a multi-ACD system is now more accurate.

The *CentreVu* CMS file system backup has been modified to include the 14-GB tape device.

The `Verify tape` field on the Maintenance: Backup Data screen now defaults to `yes`.

Cartridge tapes are now retensioned prior to *CentreVu* CMS backup initiation. This minimizes the potential for tape problems.

---

## Restore Data

When restoring data, the disk space is now checked for all file systems used for historical data when historical data restore is being done. If any file system is more than 90% full, restore will give a warning in an Acknowledgment window. You can choose to ignore the warning or rearrange the file systems.

---

## Changes Due to EAS

With EAS, the ACD Status window has the following changes:

- `Maximum skill members` is new and displays the total skill members allowed for your system.
- `Skill members in use` is new and displays the number of agent/skill pairs currently logged in.
- `Measured split field` has been removed.
- `Split members, summed over all splits field` has been removed.

---

## Custom Reports

For additional information on the Custom Reports subsystem, please refer to the *CentreVu™ CMS R3V4 Custom Reports* (AT&T 585-215-802) document.

Custom Reports allow the design of custom call record reports. Most of the call record reporting you do will be done via custom reports designed to meet your call center's needs. This report menu item will not appear on the reports menu if you have an external call record application.

---

### General Changes

- Help text is now available from all areas of Custom Reports consistent with the rest of *CentreVu* CMS and should be helpful in creating custom reports.
- The custom reports editor no longer overlaps fields when combining graph reports and standard reports.
- The Screen Painter can now be used to move, copy, and erase bar fields in custom reports.

---

### Report Select Window

When you select the Delete action item from this window in *CentreVu* CMS, you will now see the following message:

Do you really want to delete the report named "rpt\_name"?

You will be required to answer "yes" to delete the report or "no" to cancel the Delete action.

---

### Row Search Window

The `Order by` field help now correctly states that you cannot order by synonym.

## Associated ACD

Custom Report input fields are now validated against the ACD which is specified, not the current ACD.

Prior to *CentreVu* CMS, Custom Reports did not associate a specific ACD with the report (as do standard reports).

- To provide an ACD association for custom reports, an `Associated ACD` field has been added to the Screen Painter Field Definition and the Variable/Time/Date windows.

Before the `Associated ACD` field can be used, the input field type must be defined as "ACD" on the Define Input window.

- On the Screen Painter Field Definition window, if you select `Synonym` in the `Field Format` list, you must also complete the `Associated ACD` fields.
  - On the Variable/Time/Date window, the `Associated ACD` field is used only in association with the `Display input variable` field.
- 

## Changes Due to EAS

The *Get copy of design* window will list all the Skill reports with EAS.

---

## Forecast

For additional information on the Forecast subsystem, please refer to the *CentreVu™ CMS Forecast* (AT&T 585-215-811) document.

---

## Forecast Manager

An acknowledgment was added to *CentreVu* CMS that warns you about data being deleted when data are recollected.

---

## Intraday Forecast Report

If you request an Intraday Forecast report and the Current Day report does not exist, you will now get a status message `Current Day report does not exist.`

---

## User Interface

For additional information on the user interface, please refer to Chapter 2 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### General Changes

- The cursor remains in its original position after an input window is resized.
- Field help messages are now available for the **Window**, **Commands**, and **Keep** SLK menu items.
- When using the **Exit** SLK to move between secondary and primary windows, the cursor was not always on the first field and in a data entry state. This problem has been corrected in *CentreVu CMS*.
- For some reports, the minimum window size is now larger to prevent background text from overwriting other background text.
- Pressing the **Home** key or any other special keys no longer causes unprintable characters in the input fields.
- The **Print** key no longer causes CMS to core dump while you are in the Custom Report Screen Painter.
- An Acknowledgment window appears when an application error (for example, assigning a calculation to an empty string) occurs and displays the following message:

```
ERROR: Unable to continue processing
All windows associated with this task will be deleted.
Contact Services for help or your AT&T distributor.
Press return to continue.
```
- Field validation is now handled properly. When a specific field has an invalid entry (for instance, an invalid date was entered), the cursor is automatically placed in that field so the error can be corrected.

## Multi-ACD Related Changes

- Multi-ACD link status is shown on the title bar.
  - Change ACDs from the `Commands:Options:Current ACD` menu item.
  - The current ACD name or number appears in the upper right corner of each window so you will know which windows apply to which ACD.
  - You will no longer see more than one highlighted menu item when switching back and forth from one type of ACD to another (real ACD to pseudo-ACD and vice versa). In particular, if the current ACD is a real ACD, Exceptions and ACD Administration main menu items are available. If you change to a pseudo-ACD, these menu items are unavailable and grayed out. If you change from the pseudo-ACD back to the real ACD, these menu items are no longer grayed out and again available and only one menu item will be highlighted.
- 

## Set Destination

- When input windows for reports with Set Destination fields are restored via the `Commands: Restore System Default SLK`, the size is correct. All fields, including the set destination fields, appear on the input window.
- If you set the report destination to a printer or file and there are no database records found for the criteria in the input window, the report header and an empty box are written as before, but now the status line reads `No records found`.
- If you select a printer that does not exist, the message in the Error Log is now correct.
- The `Printer name:` field is now 14 characters instead of 16 characters. Prior to *CentreVu* CMS, if you entered a 16-character printer name, the CMS database only accepted 14 characters.

---

## Miscellaneous

---

### Migration

You must migrate your CMS data before upgrading to *CentreVu* CMS. See the *CentreVu™ CMS R3V4 Upgrades and Migration* (AT&T 585-215-806) document for instructions on migrating CMS data.

---

### Installation & Maintenance

- The prompt for authorizing the number of agents was changed to read:  

```
Enter maximum number of agent members that can be
administered (1-5200):
```
- There is no default for the above statement unless the CMS has been previously administered. In this case, the default is the current value.
- If the administrator is removing an ACD which is the default ACD for any existing logins, the following message will appear at the terminal:  

```
There are login ids which have this ACD as the
default ACD. These logins will be changed to have the
master ACD as their default ACD. See
/cms/install/logdir/admin.log for details.
```
- If CMS is on when you start a cmsadm backup, the following question now appears **after** the calculation for the number of tapes needed for the backup, but **before** the backup actually begins:  

```
The backup is about to begin. CMS is currently on.
CMS will be turned off automatically during that
portion of the backup which needs CMS off. Press
ENTER to proceed or BREAK to quit:
```

If you press `Enter`, the backup begins and dots are printed on the terminal (one per file) to let you know that the backup is running. You will not see a message on your terminal when CMS is turned off or when CMS is turned back on. The Backup Log file will show you when CMS was turned off and on, and at what time each occurred.
- The time it takes to estimate the number of tapes required for the backup has been reduced significantly.

## Printers

If a printer stops printing for no apparent reason, do the following from the *UNIX*\* system.

1. Enter `/usr/bin/lpstat -t` to check printer status.
2. Enter `/usr/bin/disable <printer name>` to disable the printer.
3. Enter `/usr/bin/enable <printer name>` to reset the printer.

The printer should start printing.

---

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# Change Pages — Reports Document (AT&T 585-215-801)

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## Appendix A

In the Split/Skill, Trunk Group, Trunk, Vector, and VDN database tables, the database item **OTHERCALLS** is defined as cumulative (C), which means that it applies to the historical database. **OTHERCALLS** should be defined as status (S) because it applies only to the real-time database.

To update your *CentreVu™ CMS Reports* (AT&T 585-215-801) document with this change, replace pages A-35, A-36, A-67, A-68, A-75, A-76, A-84, A-85, A-94, A-95 with the following change pages.

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Database Item	Description	Type
<b>O_ACDTIME</b>	Talk time of all <b>O_ACDCALLS</b> (does not include <b>HOLDTIME</b> ). Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACWTIME</b>	Duration of all after call work associated with <b>O_ACDCALLS</b> . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of outbound calls queued to this split/skill that were not answered or abandoned as ACD split/skill calls. These include forced busy calls and calls with unknown dispositions.	C
<b>OLDESTCALL</b> (real-time)	Current number of seconds the oldest split/skill ACD call has been waiting in queue or ringing at an agent position.	S
<b>ONACD</b> (real-time)	Current number of <b>POSITIONS</b> that are on inbound and outbound ACD calls to this split/skill. <b>ONACD</b> includes <b>ONACDOUT</b> .	S
<b>ONACDAUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on <b>AUXOUT</b> calls with one or more ACD calls on hold for this split/skill. <b>ONACDAUXOUT</b> is a subset of <b>ONACDOUT</b> .	S
<b>ONACDOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on outbound calls to this split/skill. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
<b>ONACWIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on inbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWIN</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
<b>ONACWOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on outbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWOUT</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S

## Change Page



Database Item	Description	Type
<b>ON AUXIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on inbound extension calls.	S
<b>ON AUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on outbound extension calls.	S
<b>ON HOLD</b> (real-time)	Current number of split/skill calls on hold at agent positions. Available on System 85, Generic 2, and Generic 3 switches.	S
<b>OTHER</b> (real-time)	Current number of <b>POSITIONS</b> doing <b>OTHER</b> work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent is on a direct agent call or in ACW for a direct agent call; the agent is dialing to place a call or to activate a feature; a personal call or a direct agent ACD call is ringing with no other activity. For Generic 1 and Generic 3 switches without EAS, agents are logged into multiple splits and doing work for a split other than this one (on an ACD call, in ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents are logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a skill other than this one). Agent <b>POSITIONS</b> shows up as in <b>OTHER</b> directly after the link to the switch comes up and directly after the agents log in before the <i>CentreVu</i> CMS is notified of the agent's work state. <b>OTHER</b> includes <b>DA_ONACD</b> and <b>DA_INACW</b> .	S
<b>OTHERCALLS</b>	Number of calls offered to this split/skill that did not abandon and were not answered by an ACD agent for this split/skill. <b>OTHERCALLS = BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUEUECALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> waited in queue until the disposition was known and the call left the split.	C

Table 9:

Database Item	Description	Type
<b>I_INOCC</b>	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>I_OUTOCC</b>	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (i.e., until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>INBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on inbound calls.	S
<b>INCALLS</b>	Number of inbound calls that were carried by this <b>TKGRP</b> . <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval. <b>INTRVL</b> applies to intrahour intervals only.	A
<b>MBUSY (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are maintenance busy.	S

Table 9:

Database Item	Description	Type
<b>MBUSYTIME</b>	Total time during the collection interval that trunks in the trunk group were maintenance busy.	C
<b>NUMINUSE (real-time)</b>	Current number of <b>TRUNKS</b> that are busy (on calls or maintenance busy). <b>NUMINUSE = INBOUND + OUTBOUND + MBUSY</b>	S
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> that were offered to one or more splits/skills and were answered by an agent in one of those splits/skills. <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on trunks in this trunk group that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk group that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>SHORTCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on outbound calls. <b>OUTBOUND</b> includes <b>ADJUNCTOUT</b> .	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by this <b>TKGRP</b> . <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C

**Table 9:**

Database Item	Description	Type
ROW_DATE (index)	Date on which data was collected.	C

Table 10:

Database Item	Description	Type
<b>INCALLS</b>	Number of inbound calls carried by this trunk. This includes calls with short holding times ( <b>SHORTCALLS</b> ), but does not include calls that had a trunk failure ( <b>FAILURES</b> ).  <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, or 60).  <b>INTRVL</b> applies to intrahour intervals only.	A
<b>ITN (index)</b>	Internal trunk number of the trunk.	A
<b>LOGID (real-time)</b>	Current agent (Login ID) handling the call. This is blank (NULL) when the trunk is idle.	S
<b>MBUSYTIME</b>	Length of time during the collection interval that this trunk was maintenance busy.	C
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were answered by an agent in one of those splits/skills.  <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table 10:

Database Item	Description	Type
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions.  <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions.  <b>OTHERCALLS</b> includes <b>SHORTCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by the trunk.  <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>PRIORITY (real-time)</b>	Priority at which call was queued. Without vectoring, the values are YES, NO, or as defined in Dictionary. With vectoring, the values are LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets a forced disconnect. Generic 3 switches with vectoring use MED for "no priority" and HIGH for "priority" calls that queue directly to a split without going through a vector, calls that queue to a split/skill via "route to" number of "messaging split/skill" vector commands, and calls that intraflow to a split.	S
<b>PRIORITY2-3 (real-time)</b>	Priority at which call was queued to a second or third split/skill, the values are: YES, NO, or as defined in Dictionary. With vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets forced disconnect (announcement).  Available on Generic 2.2 with vectoring and EAS, and Generic 3 switches with vectoring.	S
<b>QUECOUNT (real-time)</b>	Number of ACD split/skill queues that the call is in. This is blank (NULL) when the trunk goes idle, gets forced busy, gets a forced disconnect, connects to a station or agent, or forwards out of the queue. Values: NULL, 1-3	S

Table 11:

Database Item	Description	Type
<b>INTIME</b>	Time spent by <b>INCALLS</b> in the <b>VECTOR</b> executing steps. <b>INTIME</b> stops accruing when the "stop" vector step is executed, when a blank step in the vector is reached, when busy or disconnect is sent, when the call abandons, when a "route to" command succeeds, when a "messaging split/skill or "adjust routing" command succeeds, or when the split/skill or direct agent ACD call rings an agent.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, 60). <b>INTRVL</b> applies to intrahour intervals only.	A
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls processed by the vector.  Available on Generic 2.2 and Generic 3 switches with the look-ahead Interflow feature.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected to another switch by way of the look-ahead interflow feature.  Available on Generic 2.2 and Generic 3 switches with the look-ahead interflow feature.	C
<b>NUMVDNS</b>	Current number of VDNs that are assigned to this vector.	A
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> that connected to a non-ACD destination, were redirected out of the vector, were given a busy signal, or were disconnected.  <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> spent in the vector until the disposition was known.  <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another destination by way of a "go to vector", "route to", or "adjunct routing" command to a destination other than a split/skill or direct agent. (Calls that route to a split/skill or direct agent by way of a "route to," "adjunct routing," or "messaging split/skill" command are still tracked in the vector.)  <b>OUTFLOWCALLS</b> includes <b>GOTOCALLS</b> and <b>INTERFLOWCALLS</b> .	C

Table 11:

Database Item	Description	Type
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in the vector before being redirected. <b>OUTFLOWTIME</b> includes <b>GOTOTIME</b> .	C
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer. Available on Generic 3 switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions. Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition. Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE</b> (index)	Date on which data was collected.	C
<b>STARTTIME</b> (real-time)	Start time for the interval data was collected.	S
<b>VDISCCALLS</b>	Number of calls forced to disconnect because the vector disconnect timer timed out or because the call reached a vector "stop" command without being queued. Available on Generic 3 Version 2 and later switches.	C
<b>VECTOR</b> (index)	Vector number that this row represents.	A

Table 12:

Database Item	Description	Type
<b>INVECTOR</b> (real-time)	Current number of <b>INPROGRESS</b> calls that are being processed by a vector. Calls that are in queue and calls that are ringing are still counted as <b>INVECTOR</b> . Calls are no longer counted as <b>INVECTOR</b> when they connect to a station, are answered by an agent, abandon, or outflow from the VDN. <b>INVECTOR</b> includes <b>INQUEUE</b> and <b>INRING</b> .	S
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls in this VDN. Available on Generic 2.2 and Generic 3 switches.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches.	C
<b>MAXOCWTIME</b>	Maximum time during the collection interval that a caller waited in the VDN before being answered or connected, abandoning, being redirected, receiving busy signal or being disconnected. This applies only to the first disposition of the call.	C
<b>MAXWAITING</b>	Maximum number of calls in progress in the VDN during the collection interval.	C
<b>NOANSREDIR</b>	Number of split/skill ACD calls that rang at agent stations and then were automatically requeued to the split's/skill's queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later Generic 3 switches.	C
<b>NUMTGS</b>	Number of trunk groups assigned to this VDN.	A
<b>OLDESTCALL</b> (real-time)	Amount of time the oldest call has been waiting in this VDN to be answered.	S
<b>OTHERCALLS</b>	<b>OTHERCALLS</b> include forced busy, forced disconnect, outflow calls and non-ACD calls that were answered. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>CONNECTCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Duration of all <b>OTHERCALLS</b> until the calls leave the VDN (for example, calls drop, are sent to another VDN, are transferred, or are sent outside the switch). <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>CONNECTTIME</b> , <b>CONNTALKTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C

Table 12:

Database Item	Description	Type
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another VDN or to a destination outside the switch by way of a “route to” or “adjunct routing” command. <b>OUTFLOWCALLS</b> includes <b>INTERFLOWCALLS</b> .	C
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in this VDN before being redirected.	C
<b>PERIOD1-9</b>	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
<b>PERIODCHG</b>	Indicates whether or not the periods for call profiles were changed during the collection interval.	A
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer. Available on Generic 3 switches.	C
<b>RETURNCALLS</b>	Number of calls that reached this VDN via the VDN return destination feature. Available on Generic 3 Version 3 and later switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions. Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition. Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE (index)</b>	Date the information was collected.	C
<b>SERVICELEVEL</b>	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
<b>SKILLACWTIME1-3</b>	ACW time spent by agents for calls answered in each VDN skill preference. Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
<b>SKILLCALLS1-3</b>	Number of calls answered by agents in each VDN skill preference. Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C

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# Change Pages — Custom Reports Document (AT&T 585-215-802)

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## Appendix A

In the Split/Skill, Trunk Group, Trunk, Vector, and VDN database tables, the database item **OTHERCALLS** is defined as cumulative (C), which means that it applies to the historical database. **OTHERCALLS** should be defined as status (S) because it applies only to the real-time database.

To update your *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document with this change, replace pages A-35, A-36, A-67, A-68, A-75, A-76, A-84, A-85, A-94, A-95 with the following change pages.

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Database Item	Description	Type
<b>O_ACDTIME</b>	Talk time of all <b>O_ACDCALLS</b> (does not include <b>HOLDTIME</b> ). Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACWTIME</b>	Duration of all after call work associated with <b>O_ACDCALLS</b> . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of outbound calls queued to this split/skill that were not answered or abandoned as ACD split/skill calls. These include forced busy calls and calls with unknown dispositions.	C
<b>OLDESTCALL</b> (real-time)	Current number of seconds the oldest split/skill ACD call has been waiting in queue or ringing at an agent position.	S
<b>ONACD</b> (real-time)	Current number of <b>POSITIONS</b> that are on inbound and outbound ACD calls to this split/skill. <b>ONACD</b> includes <b>ONACDOUT</b> .	S
<b>ONACDAUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on <b>AUXOUT</b> calls with one or more ACD calls on hold for this split/skill. <b>ONACDAUXOUT</b> is a subset of <b>ONACDOUT</b> .	S
<b>ONACDOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on outbound calls to this split/skill. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
<b>ONACWIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on inbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWIN</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
<b>ONACWOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on outbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWOUT</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S



Database Item	Description	Type
<b>ON_AUXIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on inbound extension calls.	S
<b>ON_AUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on outbound extension calls.	S
<b>ON_HOLD</b> (real-time)	Current number of split/skill calls on hold at agent positions. Available on System 85, Generic 2, and Generic 3 switches.	S
<b>OTHER</b> (real-time)	Current number of <b>POSITIONS</b> doing <b>OTHER</b> work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent is on a direct agent call or in ACW for a direct agent call; the agent is dialing to place a call or to activate a feature; a personal call or a direct agent ACD call is ringing with no other activity. For Generic 1 and Generic 3 switches without EAS, agents are logged into multiple splits and doing work for a split other than this one (on an ACD call, in ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents are logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a skill other than this one). Agent <b>POSITIONS</b> shows up as in <b>OTHER</b> directly after the link to the switch comes up and directly after the agents log in before the <i>CentreVu</i> CMS is notified of the agent's work state. <b>OTHER</b> includes <b>DA_ONACD</b> and <b>DA_INACW</b> .	S
<b>OTHERCALLS</b>	Number of calls offered to this split/skill that did not abandon and were not answered by an ACD agent for this split/skill. <b>OTHERCALLS = BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUEUECALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> waited in queue until the disposition was known and the call left the split.	C

Table 13:

Database Item	Description	Type
<b>I_INOCC</b>	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>I_OUTOCC</b>	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (i.e., until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>INBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on inbound calls.	S
<b>INCALLS</b>	Number of inbound calls that were carried by this <b>TKGRP</b> . <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval. <b>INTRVL</b> applies to intrahour intervals only.	A
<b>MBUSY (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are maintenance busy.	S

Table 13:

Database Item	Description	Type
<b>MBUSYTIME</b>	Total time during the collection interval that trunks in the trunk group were maintenance busy.	C
<b>NUMINUSE (real-time)</b>	Current number of <b>TRUNKS</b> that are busy (on calls or maintenance busy). <b>NUMINUSE = INBOUND + OUTBOUND + MBUSY</b>	S
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> that were offered to one or more splits/skills and were answered by an agent in one of those splits/skills. <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on trunks in this trunk group that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk group that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>SHORTCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on outbound calls. <b>OUTBOUND</b> includes <b>ADJUNCTOUT</b> .	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by this <b>TKGRP</b> . <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C

**Table 13:**

Database Item	Description	Type
ROW_DATE (index)	Date on which data was collected.	C

Table 14:

Database Item	Description	Type
<b>INCALLS</b>	Number of inbound calls carried by this trunk. This includes calls with short holding times ( <b>SHORTCALLS</b> ), but does not include calls that had a trunk failure ( <b>FAILURES</b> ).  <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, or 60).  <b>INTRVL</b> applies to intrahour intervals only.	A
<b>ITN (index)</b>	Internal trunk number of the trunk.	A
<b>LOGID (real-time)</b>	Current agent (Login ID) handling the call. This is blank (NULL) when the trunk is idle.	S
<b>MBUSYTIME</b>	Length of time during the collection interval that this trunk was maintenance busy.	C
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were answered by an agent in one of those splits/skills.  <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table 14:

Database Item	Description	Type
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions.  <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions.  <b>OTHERCALLS</b> includes <b>SHORTCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by the trunk.  <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>PRIORITY (real-time)</b>	Priority at which call was queued. Without vectoring, the values are YES, NO, or as defined in Dictionary. With vectoring, the values are LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets a forced disconnect. Generic 3 switches with vectoring use MED for "no priority" and HIGH for "priority" calls that queue directly to a split without going through a vector, calls that queue to a split/skill via "route to" number of "messaging split/skill" vector commands, and calls that intraflow to a split.	S
<b>PRIORITY2-3 (real-time)</b>	Priority at which call was queued to a second or third split/skill, the values are: YES, NO, or as defined in Dictionary. With vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets forced disconnect (announcement).  Available on Generic 2.2 with vectoring and EAS, and Generic 3 switches with vectoring.	S
<b>QUEECOUNT (real-time)</b>	Number of ACD split/skill queues that the call is in. This is blank (NULL) when the trunk goes idle, gets forced busy, gets a forced disconnect, connects to a station or agent, or forwards out of the queue. Values: NULL, 1-3	S

Table 15:

Database Item	Description	Type
<b>INTIME</b>	Time spent by <b>INCALLS</b> in the <b>VECTOR</b> executing steps. <b>INTIME</b> stops accruing when the "stop" vector step is executed, when a blank step in the vector is reached, when busy or disconnect is sent, when the call abandons, when a "route to" command succeeds, when a "messaging split/skill" or "adjust routing" command succeeds, or when the split/skill or direct agent ACD call rings an agent.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, 60). <b>INTRVL</b> applies to intrahour intervals only.	A
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls processed by the vector.  Available on Generic 2.2 and Generic 3 switches with the look-ahead Interflow feature.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected to another switch by way of the look-ahead interflow feature.  Available on Generic 2.2 and Generic 3 switches with the look-ahead interflow feature.	C
<b>NUMVDNS</b>	Current number of VDNs that are assigned to this vector.	A
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> that connected to a non-ACD destination, were redirected out of the vector, were given a busy signal, or were disconnected.  <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> spent in the vector until the disposition was known.  <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another destination by way of a "go to vector", "route to", or "adjunct routing" command to a destination other than a split/skill or direct agent. (Calls that route to a split/skill or direct agent by way of a "route to," "adjunct routing," or "messaging split/skill" command are still tracked in the vector.)  <b>OUTFLOWCALLS</b> includes <b>GOTOCALLS</b> and <b>INTERFLOWCALLS</b> .	C

Table 15:

Database Item	Description	Type
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in the vector before being redirected. <b>OUTFLOWTIME</b> includes <b>GOTOTIME</b> .	C
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE</b> (index)	Date on which data was collected.	C
<b>STARTTIME</b> (real-time)	Start time for the interval data was collected.	S
<b>VDISCCALLS</b>	Number of calls forced to disconnect because the vector disconnect timer timed out or because the call reached a vector "stop" command without being queued.  Available on Generic 3 Version 2 and later switches.	C
<b>VECTOR</b> (index)	Vector number that this row represents.	A

Table 16:

Database Item	Description	Type
<b>INVECTOR</b> (real-time)	Current number of <b>INPROGRESS</b> calls that are being processed by a vector. Calls that are in queue and calls that are ringing are still counted as <b>INVECTOR</b> . Calls are no longer counted as <b>INVECTOR</b> when they connect to a station, are answered by an agent, abandon, or outflow from the VDN. <b>INVECTOR</b> includes <b>INQUEUE</b> and <b>INRING</b> .	S
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls in this VDN. Available on Generic 2.2 and Generic 3 switches.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches.	C
<b>MAXOCWTIME</b>	Maximum time during the collection interval that a caller waited in the VDN before being answered or connected, abandoning, being redirected, receiving busy signal or being disconnected. This applies only to the first disposition of the call.	C
<b>MAXWAITING</b>	Maximum number of calls in progress in the VDN during the collection interval.	C
<b>NOANSREDIR</b>	Number of split/skill ACD calls that rang at agent stations and then were automatically requeued to the split's/skill's queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later Generic 3 switches.	C
<b>NUMTGS</b>	Number of trunk groups assigned to this VDN.	A
<b>OLDESTCALL</b> (real-time)	Amount of time the oldest call has been waiting in this VDN to be answered.	S
<b>OTHERCALLS</b>	<b>OTHERCALLS</b> include forced busy, forced disconnect, outflow calls and non-ACD calls that were answered. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>CONNECTCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Duration of all <b>OTHERCALLS</b> until the calls leave the VDN (for example, calls drop, are sent to another VDN, are transferred, or are sent outside the switch). <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>CONNECTTIME</b> , <b>CONNTALKTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C

Table 16:

Database Item	Description	Type
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another VDN or to a destination outside the switch by way of a “route to” or “adjunct routing” command.  <b>OUTFLOWCALLS</b> includes <b>INTERFLOWCALLS</b> .	C
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in this VDN before being redirected.	C
<b>PERIOD1-9</b>	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
<b>PERIODCHG</b>	Indicates whether or not the periods for call profiles were changed during the collection interval.	A
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RETURNCALLS</b>	Number of calls that reached this VDN via the VDN return destination feature.  Available on Generic 3 Version 3 and later switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE (index)</b>	Date the information was collected.	C
<b>SERVICELEVEL</b>	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
<b>SKILLACWTIME1-3</b>	ACW time spent by agents for calls answered in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
<b>SKILLCALLS1-3</b>	Number of calls answered by agents in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C

## General Information

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### Audience

This chapter is written for customers who are upgrading from any field release of the Call Management System Release 3 Version 2 (R3V2 CMS) to the *CentreVu*<sup>™</sup> Call Management System Release 3 Version 4 (*CentreVu* CMS).

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### Introduction

This chapter describes the differences between the R3V2 CMS and the *CentreVu* CMS.

The chapter is organized in the following sections:

- Differences and Enhancements Overview
- Data, Database Items, and Calculations
- Real-Time Reports and Historical Reports
- Timetables and Shortcuts
- Dictionary
- Exceptions
- ACD Administration
- User Permissions
- System Setup
- Maintenance
- Custom Reports
- Forecast
- User Interface
- Miscellaneous

For a detailed description of the changes made in different issues of the R3V2 CMS software, please refer to the *CMS R3V2 Change Description, Issue 7* (AT&T 585-215-421) document.

## Differences and Enhancements Overview

This section overviews the major differences in and enhancements to the *CentreVu* CMS software in comparison to the R3V2 CMS.

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### **CentreVu CMS Documents**

The document set for *CentreVu* CMS is different than the R3V2 CMS document set. The *CentreVu* CMS documents available to you are:

- AT&T 585-215-800 — *CentreVu™ CMS R3V4 Administration*
- AT&T 585-215-801 — *CentreVu™ CMS R3V4 Reports*
- AT&T 585-215-802 — *CentreVu™ CMS R3V4 Custom Reports*
- AT&T 585-215-803 — *CentreVu™ CMS R3V4 Change Description*
- AT&T 585-215-804 — *CentreVu™ CMS External Call History Interface*
- AT&T 585-215-806 — *CentreVu™ CMS R3V4 Upgrades and Migrations*
- AT&T 585-215-807 — *CentreVu™ CMS R3V4 Sun\* SPARCserver† Computers Installation and Maintenance*
- AT&T 585-215-808 — *CentreVu™ CMS R3V4 Sun® Connectivity Diagram*
- AT&T 585-215-812 — *CentreVu™ CMS Forecast.*

In addition to paper documents, the following *CentreVu* CMS documents available on CD-ROM (AT&T 585-215-890):

- *CentreVu™ CMS Administration*
- *CentreVu™ CMS Reports*
- *CentreVu™ CMS Custom Reports*
- *CentreVu™ CMS External Call History*
- *CentreVu™ CMS Sun® SPARCserver™ Computers Upgrades and Migration*
- *CentreVu™ CMS Forecast.*

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\*Sun is a registered trademark of Sun Microsystems, Inc.

†SPARCserver is a trademark of SPARC International, Inc.

## Sun Platform

*CentreVu* CMS supports *Sun SPARCserver* 5, 10, and 20 computers running *Solaris*\* 2.4. All new CMS installations will be on *Sun* computers.

Refer to the *CentreVu*™ CMS R3V4 *Sun*® *SPARCserver*™ *Computers Installation and Maintenance* (AT&T 585-215-807) document for more information.

The *Sun* platform:

- Provides multiprocessor capabilities.
- Increases processor performance (approximately five times faster than the *INTEL*† platforms).
- Increases storage capacity (3-GB disk capacity which can increase to 24-GB disk capacity).
- Increases serial I/O capacity (up to 252 devices) which means you can have up to 252 terminals or any combination of terminals, printers, or modems.
- Improves real-time report refresh rate.
- Enhances system reliability using error correcting memory.
- Allows for cost-effective upgrades (for example, disk storage, memory, processor, etc.).
- Provides on-line *Solaris* help via *AnswerBook* software.
- Provides remote console functionality.
- Supports 2-GB internal or external disks.
- Uses *Solaris* 2.4 as the operating system with the *CentreVu* CMS software.
- Supports 150-MB, 2.5-GB, 5-GB, and 14-GB tape drives.
- Supports the Aurora SBus *Multiport*‡ cards.
- Supports 8, 16, and 64 port Network Terminal Servers (NTS).

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\*Solaris is a registered trademark of Sun Microsystems, Inc.

†INTEL is a registered trademark of Intel Corporation.

‡Multiport is a trademark of Aurora Technologies, Inc.

## ***Intel Platform***

*CentreVu* CMS supports the following *INTEL* platforms:

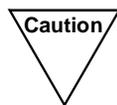
- AT&T 6386 WGS 25/S
- AT&T 6386 WGS 33/S
- AT&T *StarServer*<sup>®</sup> S
- 3332.

## Supported Switch Capacities

*CentreVu* CMS supports the following switch capacities:.

**Table 3-1:**

Item	R2V4	G2.2/ EAS	G1.1	G3i/ G3V2	G3r	G3V2/ V3/V4	Total CMS
Agent Positions	1023	1023/ 5115	400	400	1023	5200	5200
Agents Logged In	1023	1023/ 1023	400	400	1023	5200	5200
Agent Trace Active	25	25	25	25	25	25	25
BHCC (ISDN system)	25000	25000	5700	7000	40000	40000	40000
Call records (internal)	5000	5000	5000	5000	5000	5000	5000
Call Work Codes	0	1999	0	1999	1999	1999	1999
Exception Records	2000	2000	2000	2000	2000	2000	2000
Login IDs	10000	10000	10000	10000	10000	10000	10000
Login/Logout Records	999999	999999	999999	999999	999999	999999	999999
Splits/Skills	60	60/600	99	99	99	255	600
Trunk Groups	255	255	99	99	255	666	666
Trunks (measured+unmeasured)	4000	4000	400	400	4000	4000	4000
VDNs (measured)	2000	2000	n/a	500	2000	2000	2000
Vectors	128	511	n/a	256	512	512	2048
Vector Steps	15	15	n/a	15	15	32	32



Even though *CentreVu* CMS supports these capacities, you will not be able to upgrade unless you have sufficient free space on your disk to accommodate all the data you want to collect. Your current disk space allocation may specify more items to be measured for longer lengths of time than you actually have space for on your disk. If you do not have enough disk space, you must purchase more disks, make the length of time data is stored shorter, or lower the number of entities measured before you can upgrade.

---

## External Call History Interface

The External Call History Interface (ECHI) is now supported on the *INTEL* and *Sun* hardware platforms. Please refer to the *CentreVu™ CMS External Call History Interface* (AT&T 585-215-804) document for information on using the ECHI feature.

---

## Move Agents While Staffed

When running with a G3V4 switch, *CentreVu* CMS supports changing skills (in an EAS environment) and moving agents between splits (in a non-EAS environment) without requiring the agents to log off.

You can access the Move Agents While Staffed feature from the ACD Administration subsystem. Refer to the "ACD Administration" section of this chapter and Chapter 8, "ACD Administration," in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document for more information.

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## Vectoring

The following enhancements and additions have been made to the *CentreVu* CMS vectoring feature (when running with a G3V4 switch):

- **Multiple Music Sources** — allows you to change the "wait" vector step to hear a second audio/music message. For instance, if a caller is waiting in queue and has heard the first announcement, the vector can direct a second treatment to the caller.

If you try to assign an audio/music source in a "wait" vector step and your switch does not have Multiple Vector Audio/Music Sources, you will see a feature not enabled on switch message.

- **ANI Routing** — is a new conditional that allows routing decisions based on caller identity.
- **ASA Routing** — is a new conditional that allows routing decisions depending on the switch-based rolling Average Speed of Answer (ASA) for a given split/skill or VDN.
- **EWT Routing** — is a new conditional that allows routing decisions based on the Expected Wait Time (EWT) of a call.
- **VDN Calls Routing** — is a new conditional that allows making routing decisions based on the number of active incoming trunk calls for a VDN.
- **II Digits Routing** — is a new conditional that allows making routing decisions based on Information Indicator digits provided with a call.
- **Enhanced comparator and thresholds** — allows "goto" and "route to number" commands use of the complete set of comparators;

implements a “none” threshold for digits checking, and “active” or “latest” VDN thresholds for indirect VDN references.

- **Wildcard matching** — allows you to use + and ? for matching collected digits or ANI digits. Wildcard matching can only be used with the = or < > comparators.
- **“with coverage yes/no” parameter** — has been added to the “route to number” command to allow flexible routing control.
- **Abbreviated/pack vector steps** — enable vector steps to expanded to include additional commands and options.
- **Vector routing tables** — adds < >, >=, <=, = in table, not-in table comparators; tables administered on the switch that contain digit strings against which ANI digits and digits collected by Call Prompting can be tested.
- **Adding or deleting vector steps** — automatically modifies vector step numbers when you add or delete vector steps.

For more information on these vector enhancements, refer to the "ACD Administration" section of this chapter, Chapter 8, “ACD Administration,” and the “Call Vectoring and Related Generic 3 Features” appendix in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

## Average Speed of Answer (ASA)

*CentreVu* CMS computes average speed of answer (ASA) and uses ASA in existing reports as it did in R3V2 CMS. However, the G3V4 switch provides a Rolling ASA. The Rolling ASA is reported in exceptions reports and is available for use in custom reports.

For information on ASA, refer to "Exceptions" section of this chapter and Chapter 7, “Exceptions,” in the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

## Expected Wait Time (EWT)

The Expected Wait Time (EWT) is the estimated time a call will wait if it were queued to a split/skill at a specific priority. EWT measures only the time it takes to deliver the call to an agent. It does not include ringing time.

EWT is shown in the real-time Split Status and Skill Status reports and exceptions reports. EWT thresholds can be administered in the Exceptions subsystem. If you have a pre-G3V4 switch, the EWT columns/fields are shown but always remain blank.

For more information on EWT, refer to the "Exceptions" section of this chapter and Chapter 7, "Exceptions," in the *CentreVu™ CMS R3V4 Administration* (585-215-800) document.

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## Phantom Abandon Call Timer

In international areas where central offices do not provide the switch with disconnect supervision, all calls with talk times that are less than an administrable threshold can be counted as abandoned calls. *CentreVu* CMS supports a phantom abandon call timer that can be administered to count calls with talk times less than 10 seconds as a phantom abandoned call.

The Phantom Abandon Call Timer can be set from 1 - 10 seconds. Any calls whose total talktime or connecttime is less than the set number of seconds are pegged as **PHANTOMABNS**, instead of **ACDCALLS**. The abandon time for phantom calls is the time:

- For splits: from the time the call queued until the agent or answering station hangs up.
- For VDNs: from the time the call encountered the VDN until the agent or answering station hangs up.
- For vectors: from the time the call entered the vector until the agent or answering station hangs up.

When a call leaves a vector via a "route to split" command, the call is not pegged as an outflow, and can be pegged as a phantom abandon call if the call duration is shorter than the administered phantom abandon time.

The database item **PHANTOMABNS** records the total number of such calls. Also, these calls are counted as abandoned calls (**ABNCALLS**) rather than answered calls (**ACDCALLS**). The abandon time for these calls is equivalent to the time elapsed when the agent released the call.

When the phantom abandon call timer is not enabled, short ACD calls are not counted as phantom abandons, and the values of the **PHANTOMABNS** database items are 0.

Any call that has been put on HOLD, TRANSFERRED, or CONFERENCED is not recorded as a phantom abandon, even if it's duration is less than the setting of the phantom abandon call timer.

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# Data, Database Items, and Calculations

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## Data

No major changes have been made to the way data is handled in *CentreVu* CMS.

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## Database Items

For additional information on Database Items, please refer to Appendix A of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

The following database items have been added or changed:

### ACTIVECALLS

Applies to the real-time VDN table.

Switch-generated count of the number of active calls in the VDN. This includes only incoming trunk calls directly to the VDN. It does not include internal calls to the VDN, transfers to the VDN, or calls that route to the VDN after having been through another VDN.

Available on Generic 3 Version 4 switches.

### ASA

Applies to the real-time split/skill and VDN tables. Switch-provided rolling average speed of answer for this VDN. This value is sent to CMS whenever it changes on the switch (when a call is answered).

Available on Generic 3 Version 4 switches.

### EWTHIGH

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at HIGH priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at HIGH priority until being served. Time spent ringing at the agent is not included in this estimate.

Available with Generic 3 Version 4 switches.

### EWTLLOW

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at LOW priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at LOW priority until being served. Time spent ringing at the agent is not included in this estimate.

Available with Generic 3 Version 4 switches.

**EWTMEDIUM**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at MEDIUM priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at MEDIUM priority until being served. Time spent ringing at the agent is not included in this estimate.

Available on Generic 3 Version 4 switches.

**EWTTOP**

Applies to the real-time split/skill table.

Switch-calculated expected wait time for calls queued at TOP priority to this split/skill. The expected wait time is an estimate of how long a caller will wait in queue at TOP priority until being served. Time spent ringing at the agent is not included in this estimate.

Available on Generic 3 Version 4 switches.

**MOVEPENDING**

Applies to the real-time agent table.

Keeps track of a pending move for an agent. This database item can be populated by either the CNRCODE or the NAGLOGON message. When a CNRCODE message is sent to CMS in response to a MVAGSTFD message, if the RCODE for an agent is 45, indicating pending, the corresponding **MOVEPENDING** database item will be set to 1. Upon receiving the NAGLOGON message for this agent, CMS will reset the **MOVEPENDING** bit to the value of the "p" bit in the NAGLOGON message.

Once set, the **MOVEPENDING** database item is cleared for an agent when the conditions that caused the move to pend are resolved and CMS attempts to make the requested change. The database item is cleared whether or not CMS successfully completes the requested change.

Available on Generic 3 Version 4 and later switches.

**ONACDAUXOUT**

Applies to the real-time split/skill table.

Current number of **POSITIONS** that are on **AUXOUT** calls with one or more ACD calls on hold for this split/skill. **ONACDAUXOUT** is a subset of **ONAUXOUT**. This item was added to identify the number of agents in a split who currently have an ACD call on hold and are on an outbound extension call.

**PENDINGSPPLIT**

Applies to the real-time agent table.

Split/skill to which the agent will be moved. The move is pending until the agent is idle. In the case of a change of up to four skills in one request, **PENDINGSPPLIT** is set to the first new skill for the agent. It is possible for **PENDINGSPPLIT** to be blank or 0, even when **MOVEPENDING** is set. This can happen when the link to the switch comes up and a move is pending for an agent.

Available on Generic 3 Version 4 switches.

**PHANTOMABNS**

Applies to the real-time agent, split/skill, VDN, and vector tables. Number of ACD calls with talktime less than the value of the phantom abandoned call timer.

Available on Generic 3 switches.

**RETURNCALLS**

Applies to the historical VDN tables.

Number of calls that reached this VDN via the VDN return destination feature.

Available on Generic 3 Version 3 switches.

**TYPE**

Applies to the real-time Agent table.

In an EAS environment, **TYPE** is used to list the skill type (“p” for primary or “s” for secondary) of agent skills when the Find One and List All actions are specified for the ACD Administration: Multi-Agent Skill Change window.

Available on Generic 3 Version 4 switches with EAS.

**VDISCCALLS**

Applies to the historical VDN and vector tables.

Number of calls forced disconnected because the vector disconnect timer timed out or because the call reached the vector “stop” command without being queued.

Available on Generic 3 Version 2 and later Generic 3 switches.

## Calculations

For additional information on Calculations, please refer to Appendix A of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

- The <INT\_AUXTIME> calculation has been added. The calculation is used to display the stafftime in the Historical Reports Split/Skill Report daily report. The calculation definition is:

```
I_STAFFTIME - I_AVAILTIME - I_ACDTIME - I_ACWTIME -  
I_OTHERTIME - I_RINGTIME - I_DA_ACDTIME -  
I_DA_ACWTIME
```

# Real-Time Reports

For additional information on the Real-Time Reports subsystem, please refer to Chapter 3 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document and Chapter 2 of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

## Real-Time VDN Report

The VDN report has been updated to show the number of incoming trunk calls that are active for (being processed by) a VDN. The new column is *Active VDN Calls*. Figure 3-1 shows the updated VDN report.

If the *CentreVu* CMS is connected to a pre-G3V4 switch, or a G3V4 switch without vectoring, the *Active VDN Calls* column still appears, but the fields are always blank.

03/20/94 08:30 AM CentreVu(TM) CMS Windows: 1 of 1											
VDN	Calls Wait	Oldest Call	Avg Speed Answer	Calls Aban	Avg Aban Time	ACD Calls	Avg ACD Talk	Busy/Disc	VDN Flow In	VDN Flow Out	Active VDN Calls
Billing	16	1:05	:40	0		40	4:01	0	0	0	
Order	1	2:20	:27	4	:58	17	3:52	1	0	0	23
Compla	16	:55	:38	0		39	3:45	0	0	0	
Legal	2	3:00	:20	2	1:50	50	2:28	0	1	0	20
Educat	20	:50	:36	0		37	4:46	0	0	0	

  
**New Active VDN Calls Column**

Figure 3-1: VDN Report

## Real-Time Split Status and Skill Status Reports

The Split Status and Skill Status reports have been updated to include expected wait time information. Figure 3-2 and Figure 3-3 show what the reports now look like.

If the *CentreVu* CMS is connected to a pre-G3V4 switch, or a G3V4 switch without vectoring, the Expected Wait Time heading still appears, but the field is always blank.

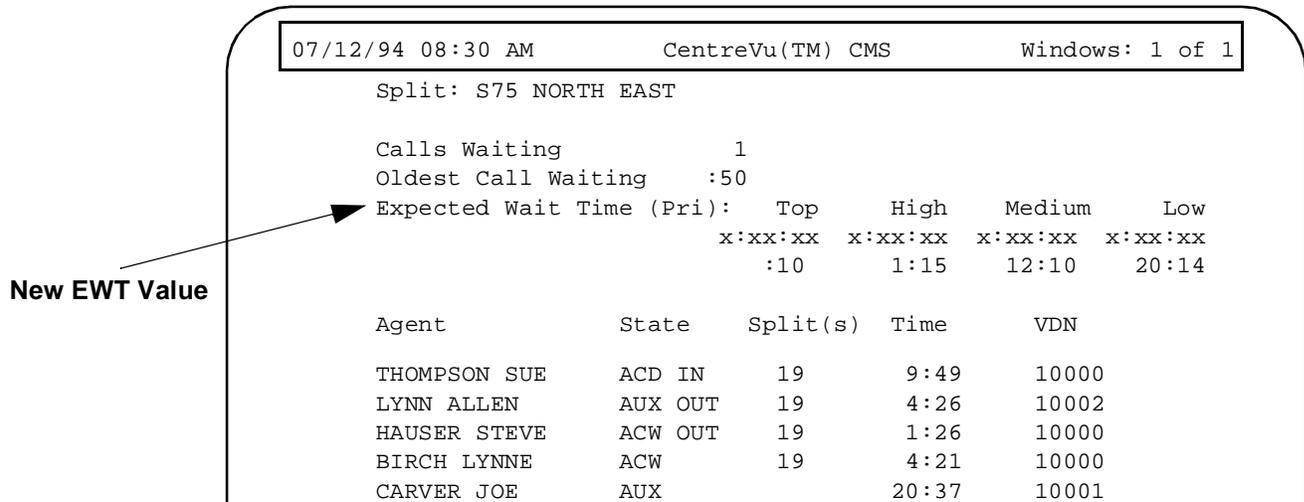


Figure 3-2: Split Status Report

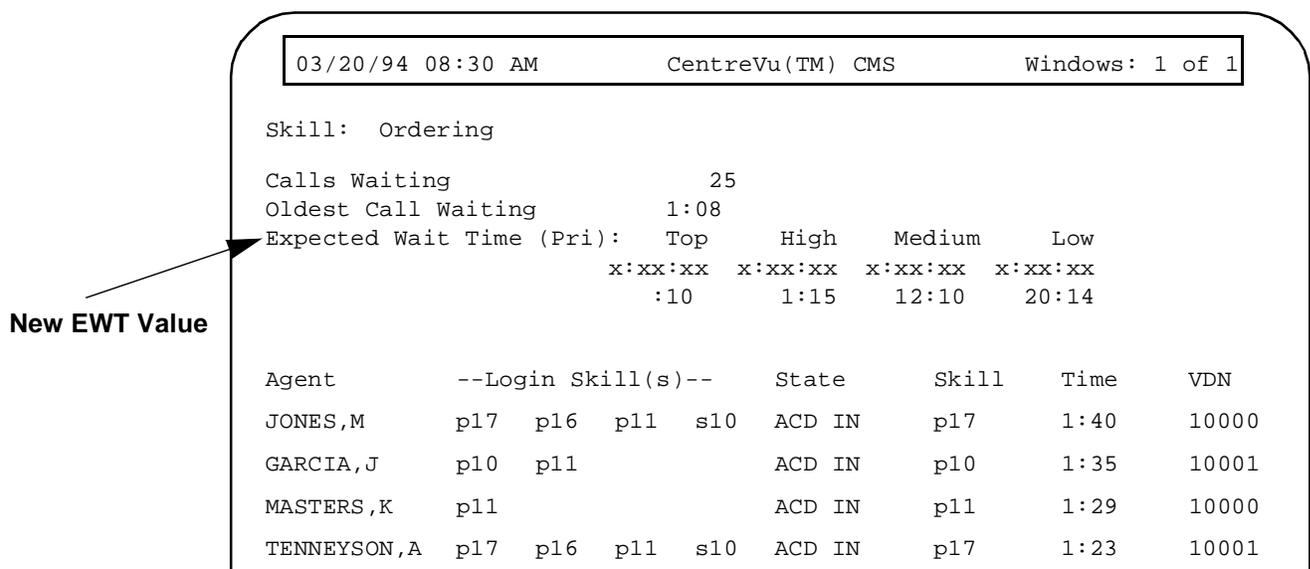


Figure 3-3: Skill Status Report

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## Historical Reports

For additional information on the Historical Reports subsystem, please refer to Chapter 4 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document and Chapter 3 of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

No changes were made to Historical Reports subsystem for the *CentreVu* CMS.

---

## Timetables and Shortcuts

For additional information on Timetables and Shortcuts, please refer to Chapter 5 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

No changes were made to Timetables and Shortcuts for the *CentreVu* CMS.

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## Dictionary

For additional information on the Dictionary subsystem, please refer to Chapter 6 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### Updates to Include New Database Items

The Dictionary subsystem was updated to include the new *CentreVu* CMS database items, including:

- ACTIVECALLS
- ASA
- EWTHIGH
- EWTLOW
- EWTMEDIUM
- EWTTOP
- MOVEPENDING
- ONACDAUXOUT
- PENDINGSPPLIT
- PHANTOMABNS
- RETURNCALLS
- TYPE
- VDISCCALLS.

# Exceptions

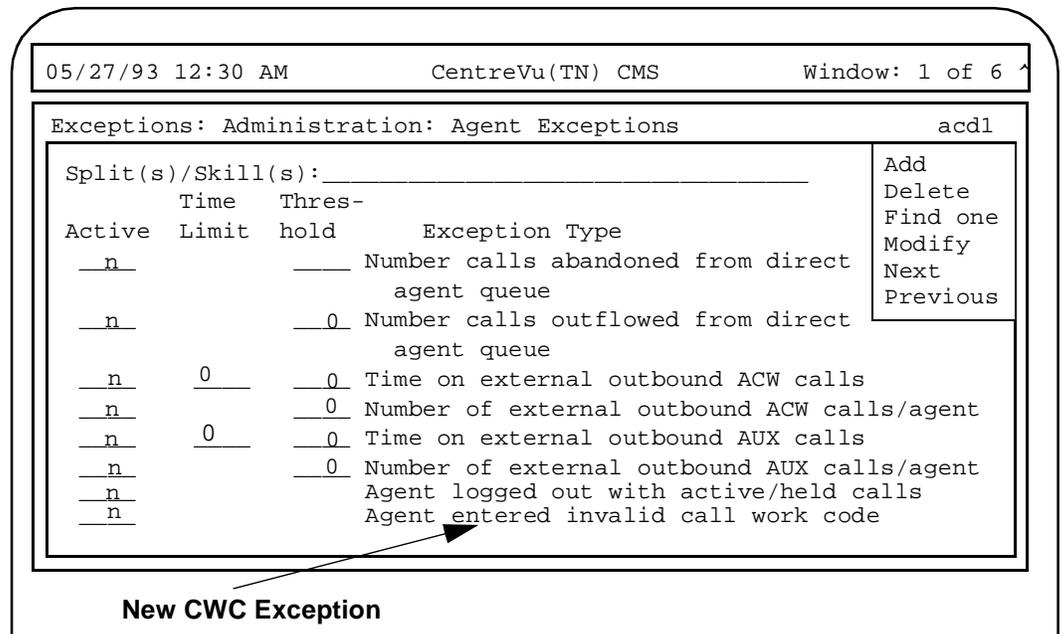
For additional information on the Exceptions subsystem, please refer to Chapter 7 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document and Chapter 4 of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

## Agent Exception

Agent exceptions now track when:

- An agent enters an invalid call work code (CWC).

The call work code exception has been added to the end of the Exceptions subsystem Administration: Agent Exceptions window, as shown in Figure 3-4.



**Figure 3-4: Agent Exceptions Administration Window #3**

When this exception is administered and an agent enters an invalid CWC (one that has not been administered), an entry is made in the Agent Exceptions Historical Report. An example of the report entry is shown in Figure 3-5.

- An agent could not be logged into a skill.

When this happens, an entry is logged in the Agent Exceptions Historical Report. An example of the report entry is shown in Figure 3-5.

09/20/95 08:30 AM		CentreVu(TM) CMS		Windows: 1 of 1	
Agent Exceptions					
Date: 5/27/93			Printed: 05/28/93 09:30 PM		
Split/Skill: 1			ACD 1		
Time	Agent Name	LoginID	Exception	Time Limit	Threshold
08:47AM	Klein, Cal	5641	Time on inbound ACD call (max)	300	2
09:32AM	Birkby, Emma	5555	Time available	300	1
10:16AM	Birkby, Emma	5555	Time on inbound ACD call (min)	10	3
11:35AM	Nguyen, Jenny	5234	Invalid call work code		
01:04PM	Klein, Cal	5641	Could not be logged in		

**New Unable to Login to Split/Skill Entry**  
**New Invalid CWC Exception Entry**

**Figure 3-5: Agent Exceptions Report**

---

## Split/Skill Exceptions

Split/Skill Exceptions now track:

- Rolling Average Speed of Answer (ASA).

The value in the *Average speed of answer (seconds)* exception field is calculated internally by CMS. However, the switch (Generic 3 Version 4 only) now sends the rolling ASA to *CentreVu* CMS via the ASA message. When CMS receives, for a split/skill, and ASA from the switch that exceeds the time limit specified in the Split/Skill Exception Administration, an occurrence is pegged. The Rolling ASA is triggered once per interval and cleared at the end of each interval.

The Rolling ASA exception has been added to the end of the Exceptions subsystem Administration: Split/Skill Exceptions window, as shown in Figure 3-6.

When the threshold for this exception is exceeded, an entry is made in the Split/Skill Exceptions Historical Report. An example of the report entry is shown in Figure 3-7.

- Expected Wait Time (EWT).

These exceptions can be administered, even if you do not have the applicable features.

EWT exceptions are triggered once per interval when the time limit exceeds the administered threshold, and cleared at the end of each interval.

The EWT exceptions have been added to the end of the Exceptions subsystem Administration: Split/Skill Exceptions window, as shown in Figure 3-6.

When the thresholds for the EWT exception are exceeded, entries are made in the Split/Skill Exception Historical Report. An example of the report entries is shown in Figure 3-7.

05/27/93 08:30 AM CentreVu(TM) CMS Window: 1 of 6 ^

Exceptions: Administration: Split/Skill Exceptions acd1

Split(s)/Skill(s): \_\_\_\_\_

Active	Time Limit	Thres- hold	Exception Type
:	:	:	· · · ·
:	:	:	· · · ·
<u>n</u>		<u>1</u>	Number calls transferred
<u>n</u>		<u>1</u>	Number calls offered while queue full
<u>n</u>	10	<u>1</u>	Expected Wait Time (pri Top) exceeds threshold
<u>n</u>	20	<u>2</u>	Expected Wait Time (pri High) exceeds threshold
<u>n</u>	40	<u>4</u>	Expected Wait Time (pri Medium) exceeds threshold
<u>n</u>	50	<u>4</u>	Expected Wait Time (pri Kiv) exceeds threshold
<u>n</u>	30	<u>4</u>	Rolling Average Speed of answer (seconds)

Add  
Delete  
Find one  
Modify  
Next  
Previous

**New Rolling ASA Exception**  
**New EWT Exceptions**

**Figure 3-6: Split/Skill Exception Administration Window**

09/20/95 08:30 AM CentreVu(TM) CMS Windows: 1 of 1

Split/Skill Exceptions

Date: 4/27/93 Printed: 04/28/93 09:30 PM  
ACD 1

Time	Split/Skill	Exception	Time Limit	Threshold
10:04AM	Catalog Sales	Average speed of answer	10	0
10:09AM	Catalog Sales	Expected wait time (pri top)	10	1
10:13AM	Customer Service	Number calls waiting		10
10:22AM	Catalog Sales	Expected wait time (pri high)	15	5
10:28AM	Service	Expected wait time (pri medium)	30	10
10:37AM	Calalog Sales	Expected wait time (pri low)	45	15
10:45AM	Catalog Sales	Number calls abandoned		15
10:53AM	Service	Rolling average speed of answer	20	10

**New EWT Entries**  
**New Rolling ASA Entry**

**Figure 3-7: Split/Skill Exceptions Report**

## VDN Exceptions

VDN Exceptions now track:

- Rolling Average Speed of Answer (ASA).

The switch now sends the rolling ASA to *CentreVu* CMS via the ASA message. When CMS receives, for a VDN or split/skill, an ASA from the switch that exceeds the time limit specified in the VDN Exception Administration, an occurrence is pegged. The Rolling ASA is triggered once per interval and cleared at the end of each interval.

The Rolling ASA exception has been added to the end of the Exceptions subsystem Administration: VDN Exceptions window, as shown in Figure 3-8.

When the threshold for this exception is exceeded, an entry is made in the VDN Exceptions Historical Report. An example of the report entry is shown in Figure 3-9.

Active	Time Limit	Thres-hold	Exception Type
.	.	.	.....
.	.	.	.....
.	.	.	.....
<u>n</u>		<u>7</u>	Number calls interflowed out of VDN
<u>n</u>		<u>3</u>	Number calls handled by backup split
<u>n</u>		<u>10</u>	Number unsuccessful lookahead interflow attempts
<u>n</u>		<u>8</u>	Number unsuccessful adjunct routing attempts
<u>n</u>	<u>30</u>	<u>3</u>	Rolling Average Speed of Answer (seconds)

New Rolling ASA Exception

**Figure 3-8: VDN Exceptions Administration Window**

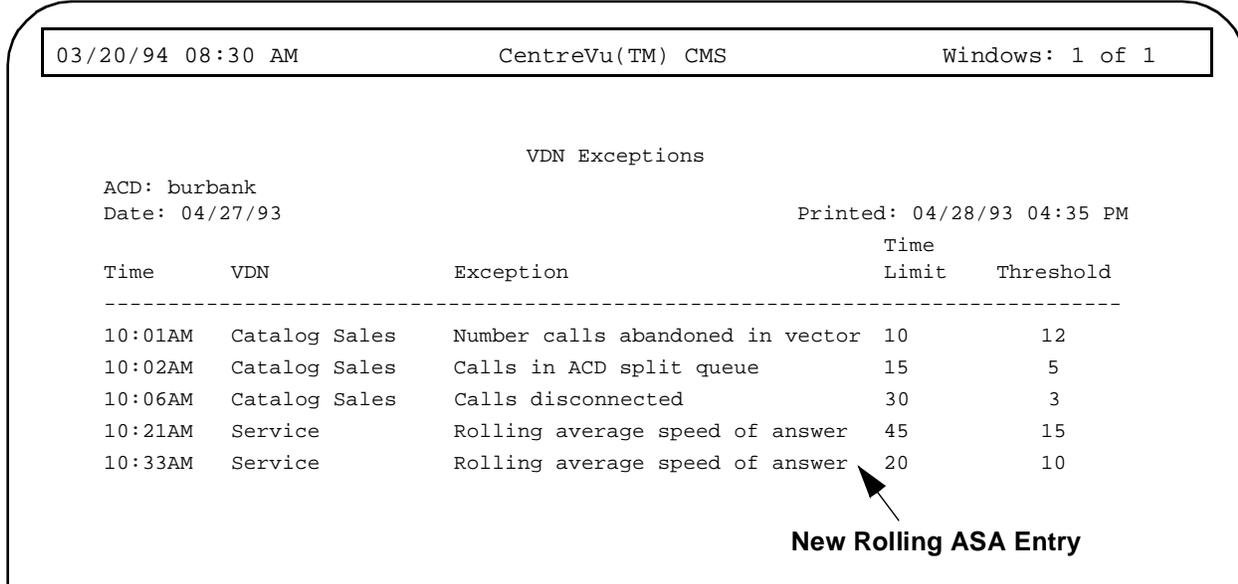


Figure 3-9: VDN Exceptions Report

### Real-Time Exceptions Log

The additions to Agent, Split/Skill and VDN exceptions administration result in additional entries to the Real-Time Exceptions Log. Figure 3-10 shows an example of each possible new entry.

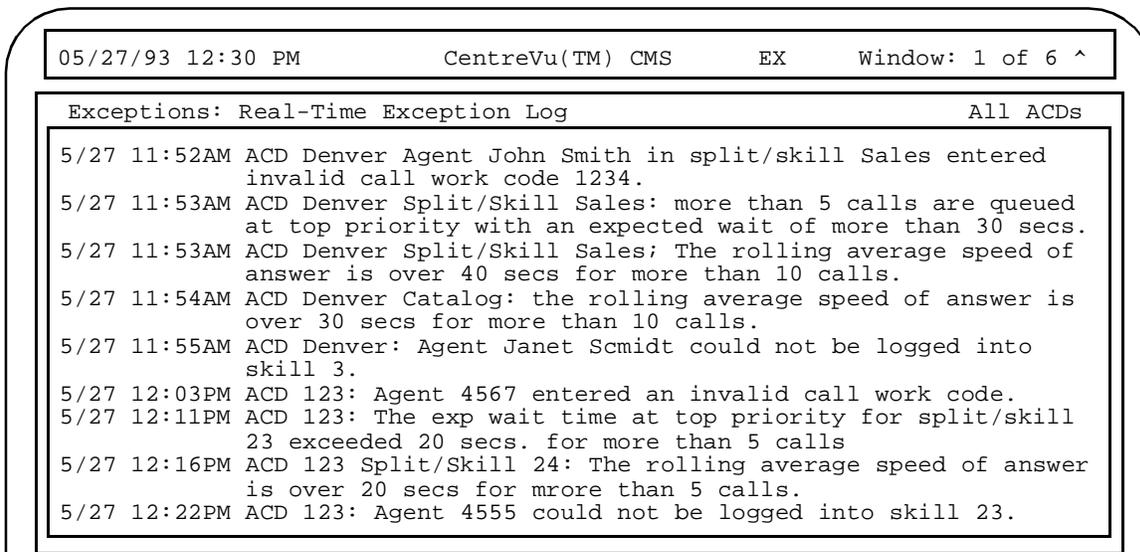


Figure 3-10: Real-Time Exceptions Log

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## ACD Administration

For additional information on the ACD Administration subsystem, please refer to Chapter 8 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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## Vectoring

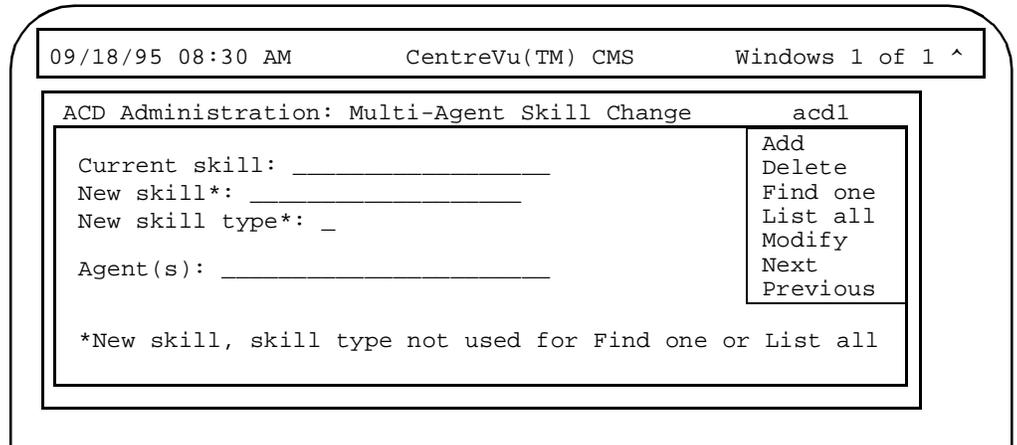
Vector commands in the Vector Commands window are now shown in abbreviated (packed) format, regardless of the type of switch the *CentreVu* CMS is connected to.

---

## Multi-Agent Skill Change Menu Option (G3V4 with EAS)

The Multi-Agent Skill Change menu item has been added to the ACD Administration subsystem menu for *CentreVu* CMSs that are connected to Generic 3 Version 4 switches with EAS.

When the Multi-Agent Skill Change menu option is selected, the window shown in Figure 3-11 displays. It allows you to change one skill for up to 32 agents.



**Figure 3-11: Multi-Agent Skill Change (G3V4 With EAS) Window**

## Move Extensions Between Splits (G3V4 non-EAS)

The Move Extensions Between Splits menu item has been updated for *CentreVu* CMSs that are connected to Generic 3 Version 4 switches without EAS. It now allows up to 32 agent extensions to be moved between splits *without* requiring the agents to log off. This command can still be used to move unstaffed agents. Figure 3-12 shows the Move Extensions Between Splits input window.

03/20/94 08:30 AM		CentreVu(TM) CMS	Windows 1 of 1 ^
ACD Administration: Move Extensions Between Splits			ACD1
Split moving from (optional):	<u>Custserv</u>	Find one List all Modify Next Previous	
Split moving to*:	<u>Sales</u>		
Extensions:	<u>2050-2060;2062</u>		
**"Split moving to" not used for Find one or List all			

**Figure 3-12: Move Extensions Between Splits Window**

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## User Permissions

For additional information on the User Permissions subsystem, please refer to Chapter 9 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

No changes have been made to the User Permissions subsystem for the *CentreVu* CMS.

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# System Setup

For additional information on the System Setup subsystem, please refer to Chapter 10 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

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## Switch Setup

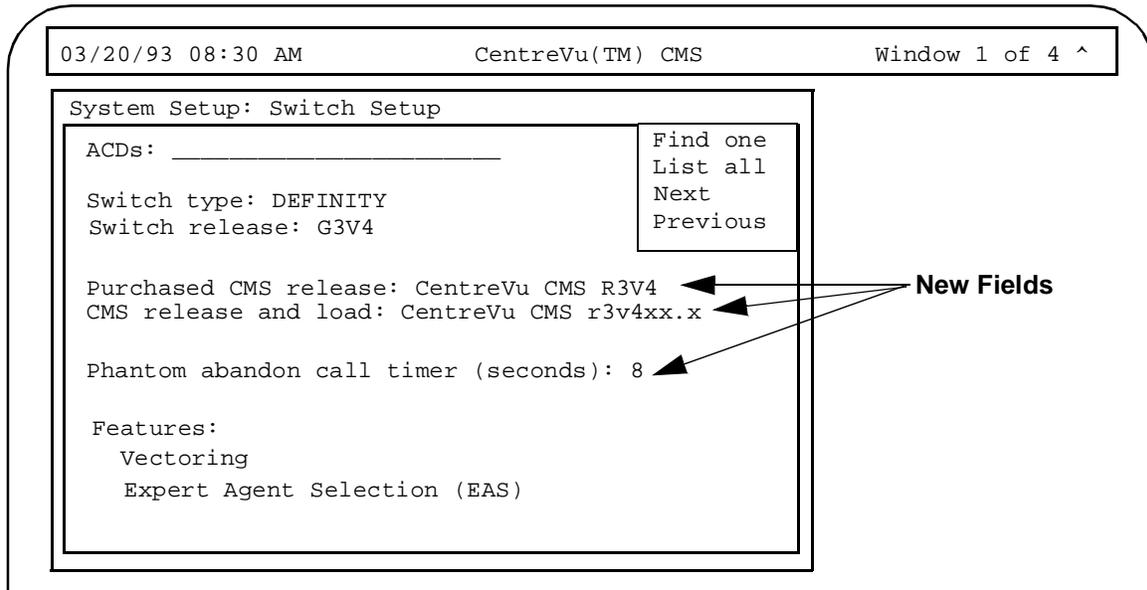
The following fields have been added to the Switch Setup window:

- Purchased CMS release:
- CMS release and load:

**Note** The schema for CentreVu CMS loads is r3v4xx.x, where xx.x designates the load name (for example, r3v4af.i).

- Phantom abandon call timer (seconds):

Figure 3-13 is an example of the window with the new fields.



**Figure 3-13: Switch Setup Window**

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## Maintenance

For additional information on the Maintenance subsystem, please refer to Chapter 11 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

No changes have been made to the Maintenance subsystem for *CentreVu* CMS.

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## Custom Reports

For additional information on the Custom Reports subsystem, please refer to the *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document.

No changes have been made to the Custom Reports capabilities for *CentreVu* CMS. However, custom reports created with *CentreVu* CMS (connected to a Generic 3 Version 4 switch) can include the *CentreVu* CMS capabilities described in this document.

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## Forecast

For additional information on the Forecast subsystem, please refer to the *CentreVu™ CMS Forecast* (AT&T 585-215-811) document.

No changes have been made to the Forecast subsystem *CentreVu* CMS.

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## User Interface

For additional information on the user interface, please refer to Chapter 2 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

No changes have been made to the user interface in *CentreVu* CMS.

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## Miscellaneous

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### Migration

Use Table 3-2 to determine if you need to migrate your R3V2 CMS data prior to installing *CentreVu* CMS. For instructions on migrating data, see the *CentreVu™ CMS Upgrades and Migration* (AT&T 585-215-806) document.

**Table 3-2:**

<b>R3V2 CMS Platform</b>	<b>CentreVu CMS Platform</b>	<b>Migrate?</b>
<i>INTEL</i> (single ACD)	<i>INTEL</i> (single ACD)	no
<i>INTEL</i> (multi-ACD)	<i>INTEL</i> (multi-ACD)	yes
<i>INTEL</i>	<i>Sun</i>	yes
<i>Sun</i> (single ACD)	<i>Sun</i> (single ACD)	no
<i>Sun</i> (multi-ACD)	<i>Sun</i> (multi-ACD)	yes
<i>INTEL</i> =WGS 6386/25, WGS6386/33, <i>StarServer</i> , and 3332 computers		
<i>Sun</i> = <i>Sun SPARCserver</i> 5, 10, and 20 computers.		

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## Change Pages — Reports Document (AT&T 585-215-801)

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### Appendix A

In the Split/Skill, Trunk Group, Trunk, Vector, and VDN database tables, the database item **OTHERCALLS** is defined as cumulative (C), which means that it applies to the historical database. **OTHERCALLS** should be defined as status (S) because it applies only to the real-time database.

To update your *CentreVu™ CMS Reports* (AT&T 585-215-801) document with this change, replace pages A-35, A-36, A-67, A-68, A-75, A-76, A-84, A-85, A-94, A-95 with the following change pages.

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Database Item	Description	Type
<b>O_ACDTIME</b>	Talk time of all <b>O_ACDCALLS</b> (does not include <b>HOLDTIME</b> ). Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACWTIME</b>	Duration of all after call work associated with <b>O_ACDCALLS</b> . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of outbound calls queued to this split/skill that were not answered or abandoned as ACD split/skill calls. These include forced busy calls and calls with unknown dispositions.	C
<b>OLDESTCALL</b> (real-time)	Current number of seconds the oldest split/skill ACD call has been waiting in queue or ringing at an agent position.	S
<b>ONACD</b> (real-time)	Current number of <b>POSITIONS</b> that are on inbound and outbound ACD calls to this split/skill. <b>ONACD</b> includes <b>ONACDOUT</b> .	S
<b>ONACDAUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on <b>AUXOUT</b> calls with one or more ACD calls on hold for this split/skill. <b>ONACDAUXOUT</b> is a subset of <b>ONACDOUT</b> .	S
<b>ONACDOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on outbound calls to this split/skill. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
<b>ONACWIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on inbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWIN</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
<b>ONACWOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on outbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWOUT</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S

## Change Page



Database Item	Description	Type
<b>ONAUXIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on inbound extension calls.	S
<b>ONAUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on outbound extension calls.	S
<b>ONHOLD</b> (real-time)	Current number of split/skill calls on hold at agent positions. Available on System 85, Generic 2, and Generic 3 switches.	S
<b>OTHER</b> (real-time)	Current number of <b>POSITIONS</b> doing <b>OTHER</b> work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent is on a direct agent call or in ACW for a direct agent call; the agent is dialing to place a call or to activate a feature; a personal call or a direct agent ACD call is ringing with no other activity. For Generic 1 and Generic 3 switches without EAS, agents are logged into multiple splits and doing work for a split other than this one (on an ACD call, in ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents are logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a skill other than this one). Agent <b>POSITIONS</b> shows up as in <b>OTHER</b> directly after the link to the switch comes up and directly after the agents log in before the <i>CentreVu</i> CMS is notified of the agent's work state. <b>OTHER</b> includes <b>DA_ONACD</b> and <b>DA_INACW</b> .	S
<b>OTHERCALLS</b>	Number of calls offered to this split/skill that did not abandon and were not answered by an ACD agent for this split/skill. <b>OTHERCALLS = BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUEUECALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> waited in queue until the disposition was known and the call left the split.	C

Table 17:

Database Item	Description	Type
<b>I_INOCC</b>	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>I_OUTOCC</b>	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (i.e., until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>INBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on inbound calls.	S
<b>INCALLS</b>	Number of inbound calls that were carried by this <b>TKGRP</b> . <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval. <b>INTRVL</b> applies to intrahour intervals only.	A
<b>MBUSY (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are maintenance busy.	S

Table 17:

Database Item	Description	Type
<b>MBUSYTIME</b>	Total time during the collection interval that trunks in the trunk group were maintenance busy.	C
<b>NUMINUSE (real-time)</b>	Current number of <b>TRUNKS</b> that are busy (on calls or maintenance busy). <b>NUMINUSE = INBOUND + OUTBOUND + MBUSY</b>	S
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> that were offered to one or more splits/skills and were answered by an agent in one of those splits/skills. <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on trunks in this trunk group that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk group that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>SHORTCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on outbound calls. <b>OUTBOUND</b> includes <b>ADJUNCTOUT</b> .	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by this <b>TKGRP</b> . <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C

Table 17:

Database Item	Description	Type
ROW_DATE (index)	Date on which data was collected.	C

Table 18:

Database Item	Description	Type
<b>INCALLS</b>	Number of inbound calls carried by this trunk. This includes calls with short holding times ( <b>SHORTCALLS</b> ), but does not include calls that had a trunk failure ( <b>FAILURES</b> ).  <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, or 60).  <b>INTRVL</b> applies to intrahour intervals only.	A
<b>ITN (index)</b>	Internal trunk number of the trunk.	A
<b>LOGID (real-time)</b>	Current agent (Login ID) handling the call. This is blank (NULL) when the trunk is idle.	S
<b>MBUSYTIME</b>	Length of time during the collection interval that this trunk was maintenance busy.	C
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were answered by an agent in one of those splits/skills.  <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table 18:

Database Item	Description	Type
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions.  <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions.  <b>OTHERCALLS</b> includes <b>SHORTCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by the trunk.  <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>PRIORITY (real-time)</b>	Priority at which call was queued. Without vectoring, the values are YES, NO, or as defined in Dictionary. With vectoring, the values are LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets a forced disconnect. Generic 3 switches with vectoring use MED for "no priority" and HIGH for "priority" calls that queue directly to a split without going through a vector, calls that queue to a split/skill via "route to" number of "messaging split/skill" vector commands, and calls that intraflow to a split.	S
<b>PRIORITY2-3 (real-time)</b>	Priority at which call was queued to a second or third split/skill, the values are: YES, NO, or as defined in Dictionary. With vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets forced disconnect (announcement).  Available on Generic 2.2 with vectoring and EAS, and Generic 3 switches with vectoring.	S
<b>QUECOUNT (real-time)</b>	Number of ACD split/skill queues that the call is in. This is blank (NULL) when the trunk goes idle, gets forced busy, gets a forced disconnect, connects to a station or agent, or forwards out of the queue. Values: NULL, 1-3	S

Table 19:

Database Item	Description	Type
<b>INTIME</b>	Time spent by <b>INCALLS</b> in the <b>VECTOR</b> executing steps. <b>INTIME</b> stops accruing when the "stop" vector step is executed, when a blank step in the vector is reached, when busy or disconnect is sent, when the call abandons, when a "route to" command succeeds, when a "messaging split/skill or "adjust routing" command succeeds, or when the split/skill or direct agent ACD call rings an agent.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, 60). <b>INTRVL</b> applies to intrahour intervals only.	A
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls processed by the vector.  Available on Generic 2.2 and Generic 3 switches with the look-ahead Interflow feature.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected to another switch by way of the look-ahead interflow feature.  Available on Generic 2.2 and Generic 3 switches with the look-ahead interflow feature.	C
<b>NUMVDNS</b>	Current number of VDNs that are assigned to this vector.	A
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> that connected to a non-ACD destination, were redirected out of the vector, were given a busy signal, or were disconnected.  <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> spent in the vector until the disposition was known.  <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another destination by way of a "go to vector", "route to", or "adjunct routing" command to a destination other than a split/skill or direct agent. (Calls that route to a split/skill or direct agent by way of a "route to," "adjunct routing," or "messaging split/skill" command are still tracked in the vector.)  <b>OUTFLOWCALLS</b> includes <b>GOTOCALLS</b> and <b>INTERFLOWCALLS</b> .	C

Table 19:

Database Item	Description	Type
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in the vector before being redirected. <b>OUTFLOWTIME</b> includes <b>GOTOTIME</b> .	C
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer. Available on Generic 3 switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions. Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition. Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE</b> (index)	Date on which data was collected.	C
<b>STARTTIME</b> (real-time)	Start time for the interval data was collected.	S
<b>VDISCCALLS</b>	Number of calls forced to disconnect because the vector disconnect timer timed out or because the call reached a vector "stop" command without being queued. Available on Generic 3 Version 2 and later switches.	C
<b>VECTOR</b> (index)	Vector number that this row represents.	A

Table 20:

Database Item	Description	Type
<b>INVECTOR</b> (real-time)	Current number of <b>INPROGRESS</b> calls that are being processed by a vector. Calls that are in queue and calls that are ringing are still counted as <b>INVECTOR</b> . Calls are no longer counted as <b>INVECTOR</b> when they connect to a station, are answered by an agent, abandon, or outflow from the VDN. <b>INVECTOR</b> includes <b>INQUEUE</b> and <b>INRING</b> .	S
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls in this VDN. Available on Generic 2.2 and Generic 3 switches.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches.	C
<b>MAXOCWTIME</b>	Maximum time during the collection interval that a caller waited in the VDN before being answered or connected, abandoning, being redirected, receiving busy signal or being disconnected. This applies only to the first disposition of the call.	C
<b>MAXWAITING</b>	Maximum number of calls in progress in the VDN during the collection interval.	C
<b>NOANSREDIR</b>	Number of split/skill ACD calls that rang at agent stations and then were automatically requeued to the split's/skill's queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later Generic 3 switches.	C
<b>NUMTGS</b>	Number of trunk groups assigned to this VDN.	A
<b>OLDESTCALL</b> (real-time)	Amount of time the oldest call has been waiting in this VDN to be answered.	S
<b>OTHERCALLS</b>	<b>OTHERCALLS</b> include forced busy, forced disconnect, outflow calls and non-ACD calls that were answered. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>CONNECTCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Duration of all <b>OTHERCALLS</b> until the calls leave the VDN (for example, calls drop, are sent to another VDN, are transferred, or are sent outside the switch). <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>CONNECTTIME</b> , <b>CONNTALKTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C

Table 20:

Database Item	Description	Type
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another VDN or to a destination outside the switch by way of a “route to” or “adjunct routing” command.  <b>OUTFLOWCALLS</b> includes <b>INTERFLOWCALLS</b> .	C
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in this VDN before being redirected.	C
<b>PERIOD1-9</b>	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
<b>PERIODCHG</b>	Indicates whether or not the periods for call profiles were changed during the collection interval.	A
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RETURNCALLS</b>	Number of calls that reached this VDN via the VDN return destination feature.  Available on Generic 3 Version 3 and later switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE (index)</b>	Date the information was collected.	C
<b>SERVICELEVEL</b>	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
<b>SKILLACWTIME1-3</b>	ACW time spent by agents for calls answered in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
<b>SKILLCALLS1-3</b>	Number of calls answered by agents in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C

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# Change Pages — Custom Reports Document (AT&T 585-215-802)

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## Appendix A

In the Split/Skill, Trunk Group, Trunk, Vector, and VDN database tables, the database item **OTHERCALLS** is defined as cumulative (C), which means that it applies to the historical database. **OTHERCALLS** should be defined as status (S) because it applies only to the real-time database.

To update your *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document with this change, replace pages A-35, A-36, A-67, A-68, A-75, A-76, A-84, A-85, A-94, A-95 with the following change pages.

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Database Item	Description	Type
<b>O_ACDTIME</b>	Talk time of all <b>O_ACDCALLS</b> (does not include <b>HOLDTIME</b> ). Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACWTIME</b>	Duration of all after call work associated with <b>O_ACDCALLS</b> . Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of outbound calls queued to this split/skill that were not answered or abandoned as ACD split/skill calls. These include forced busy calls and calls with unknown dispositions.	C
<b>OLDESTCALL</b> (real-time)	Current number of seconds the oldest split/skill ACD call has been waiting in queue or ringing at an agent position.	S
<b>ONACD</b> (real-time)	Current number of <b>POSITIONS</b> that are on inbound and outbound ACD calls to this split/skill. <b>ONACD</b> includes <b>ONACDOUT</b> .	S
<b>ONACDAUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on <b>AUXOUT</b> calls with one or more ACD calls on hold for this split/skill. <b>ONACDAUXOUT</b> is a subset of <b>ONACDOUT</b> .	S
<b>ONACDOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are on outbound calls to this split/skill. Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	S
<b>ONACWIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on inbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWIN</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S
<b>ONACWOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in ACW and on outbound extension calls. These agents also appear in either <b>INACW</b> or <b>DA_INACW</b> . <b>ONACWOUT</b> includes agents receiving or making extension calls from ACW associated with split/skill and direct agent ACD calls and from ACW not associated with an ACD call.	S



Database Item	Description	Type
<b>ON AUXIN</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE, or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on inbound extension calls.	S
<b>ON AUXOUT</b> (real-time)	Current number of <b>POSITIONS</b> that are in AUX work or AVAILABLE or, for Generic 2.2 and Generic 3 switches, with an ACD or AUXIN/AUXOUT call on hold, and on outbound extension calls.	S
<b>ON HOLD</b> (real-time)	Current number of split/skill calls on hold at agent positions. Available on System 85, Generic 2, and Generic 3 switches.	S
<b>OTHER</b> (real-time)	Current number of <b>POSITIONS</b> doing <b>OTHER</b> work. For Generic 3 switches, other work includes: while in Auto-In or Manual-In mode, an agent put any call on hold and performed no further action; the agent is on a direct agent call or in ACW for a direct agent call; the agent is dialing to place a call or to activate a feature; a personal call or a direct agent ACD call is ringing with no other activity. For Generic 1 and Generic 3 switches without EAS, agents are logged into multiple splits and doing work for a split other than this one (on an ACD call, in ACW, or on a personal call attributed to a split other than this one). For Generic 2.2 and Generic 3 switches with EAS, agents are logged into multiple skills and doing work for a skill other than this one (on an ACD call, in call-related ACW, or on a personal call attributed to a skill other than this one). Agent <b>POSITIONS</b> shows up as in <b>OTHER</b> directly after the link to the switch comes up and directly after the agents log in before the <i>CentreVu</i> CMS is notified of the agent's work state. <b>OTHER</b> includes <b>DA_ONACD</b> and <b>DA_INACW</b> .	S
<b>OTHERCALLS</b>	Number of calls offered to this split/skill that did not abandon and were not answered by an ACD agent for this split/skill. <b>OTHERCALLS = BUSYCALLS + DISCCALLS + OUTFLOWCALLS + DEQUEUECALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> waited in queue until the disposition was known and the call left the split.	C

Table 21:

Database Item	Description	Type
<b>I_INOCC</b>	Total trunk hold time for all inbound calls carried by trunks in this trunk group for this collection interval. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>I_OUTOCC</b>	Total trunk holding time for all outbound calls carried by trunks in this trunk group for this collection interval. Trunk hold time is the time from the initial trunk seizure until the trunk goes idle (i.e., until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>INBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on inbound calls.	S
<b>INCALLS</b>	Number of inbound calls that were carried by this <b>TKGRP</b> . <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval. <b>INTRVL</b> applies to intrahour intervals only.	A
<b>MBUSY (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are maintenance busy.	S

Table 21:

Database Item	Description	Type
<b>MBUSYTIME</b>	Total time during the collection interval that trunks in the trunk group were maintenance busy.	C
<b>NUMINUSE (real-time)</b>	Current number of <b>TRUNKS</b> that are busy (on calls or maintenance busy). <b>NUMINUSE = INBOUND + OUTBOUND + MBUSY</b>	S
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> that were offered to one or more splits/skills and were answered by an agent in one of those splits/skills. <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on trunks in this trunk group that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions. <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk group that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>SHORTCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTBOUND (real-time)</b>	Current number of <b>NUMINUSE</b> trunks that are busy on outbound calls. <b>OUTBOUND</b> includes <b>ADJUNCTOUT</b> .	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by this <b>TKGRP</b> . <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by trunks in this trunk group. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C

**Table 21:**

Database Item	Description	Type
ROW_DATE (index)	Date on which data was collected.	C

Table 22:

Database Item	Description	Type
<b>INCALLS</b>	Number of inbound calls carried by this trunk. This includes calls with short holding times ( <b>SHORTCALLS</b> ), but does not include calls that had a trunk failure ( <b>FAILURES</b> ).  <b>INCALLS = ABNCALLS + ACDCALLS + OTHERCALLS</b>	C
<b>INCOMPLETE</b>	Indicates whether or not data is complete for this collection interval. Data is incomplete whenever the link goes down and whenever tracking is aborted for calls, due to trunk failures (System 85 and Generic 2 switches), the trunk going maintenance busy with a call active (Generic 1 and Generic 3 switches), protocol failures, or when split/skill or VDN call profile is changed with data collection active. The value for interval tables indicates whether data is incomplete for the interval (0 = data complete, 1 = data incomplete). The value in the daily, weekly, and monthly tables indicates the number of incomplete intervals in the day, week, or month.	C
<b>INTIME</b>	Trunk holding time for all <b>INCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (that is, until the caller drops, the agent releases the call, or the switch disconnects the call). If an incoming call on a measured trunk is transferred off the switch, the incoming trunk remains in use for the call and accrues trunk holding time until the caller drops or the call is released.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, or 60).  <b>INTRVL</b> applies to intrahour intervals only.	A
<b>ITN (index)</b>	Internal trunk number of the trunk.	A
<b>LOGID (real-time)</b>	Current agent (Login ID) handling the call. This is blank (NULL) when the trunk is idle.	S
<b>MBUSYTIME</b>	Length of time during the collection interval that this trunk was maintenance busy.	C
<b>O_ABNCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were abandoned by the far end.  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C
<b>O_ACDCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were offered to ACD splits/skills and were answered by an agent in one of those splits/skills.  <b>O_ACDCALLS</b> includes <b>DA_ACDCALLS</b> .  Available on Generic 2.2 switches with the ASAI Gateway Interface feature and Generic 3 switches with the ASAI feature.	C

Table 22:

Database Item	Description	Type
<b>O_OTHERCALLS</b>	Number of <b>OUTCALLS</b> on this trunk that were not answered or abandoned as ACD split/skill calls. These include extension out calls, forced busy calls, short outgoing calls, and calls with unknown dispositions.  <b>O_OTHERCALLS</b> includes <b>SHORTCALLS</b> .	C
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> carried by this trunk that were not answered or abandoned as split/skill or direct agent ACD calls. These include forced busy calls, forced disconnect calls, calls that were connected to a non-ACD destination, short inbound calls, and calls with unknown dispositions.  <b>OTHERCALLS</b> includes <b>SHORTCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OUTCALLS</b>	Number of outbound calls that were carried by the trunk.  <b>OUTCALLS = O_ACDCALLS + O_ABNCALLS + O_OTHERCALLS</b>	C
<b>OUTTIME</b>	Trunk holding time for all <b>OUTCALLS</b> carried by this trunk. Trunk holding time is the time from the initial trunk seizure until the trunk goes idle (for example, until the far end drops, the agent releases the call, or the switch disconnects the call).	C
<b>PRIORITY (real-time)</b>	Priority at which call was queued. Without vectoring, the values are YES, NO, or as defined in Dictionary. With vectoring, the values are LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets a forced disconnect. Generic 3 switches with vectoring use MED for "no priority" and HIGH for "priority" calls that queue directly to a split without going through a vector, calls that queue to a split/skill via "route to" number of "messaging split/skill" vector commands, and calls that intraflow to a split.	S
<b>PRIORITY2-3 (real-time)</b>	Priority at which call was queued to a second or third split/skill, the values are: YES, NO, or as defined in Dictionary. With vectoring, the values are: LOW, MED, HIGH, TOP, or as defined in Dictionary. This is blank (NULL) when the trunk idles, gets forced busy, or gets forced disconnect (announcement).  Available on Generic 2.2 with vectoring and EAS, and Generic 3 switches with vectoring.	S
<b>QUEECOUNT (real-time)</b>	Number of ACD split/skill queues that the call is in. This is blank (NULL) when the trunk goes idle, gets forced busy, gets a forced disconnect, connects to a station or agent, or forwards out of the queue. Values: NULL, 1-3	S

Table 23:

Database Item	Description	Type
<b>INTIME</b>	Time spent by <b>INCALLS</b> in the <b>VECTOR</b> executing steps. <b>INTIME</b> stops accruing when the "stop" vector step is executed, when a blank step in the vector is reached, when busy or disconnect is sent, when the call abandons, when a "route to" command succeeds, when a "messaging split/skill" or "adjust routing" command succeeds, or when the split/skill or direct agent ACD call rings an agent.	C
<b>INTRVL</b>	Number of minutes in the interval (15, 30, 60). <b>INTRVL</b> applies to intrahour intervals only.	A
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls processed by the vector.  Available on Generic 2.2 and Generic 3 switches with the look-ahead Interflow feature.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected to another switch by way of the look-ahead interflow feature.  Available on Generic 2.2 and Generic 3 switches with the look-ahead interflow feature.	C
<b>NUMVDNS</b>	Current number of VDNs that are assigned to this vector.	A
<b>OTHERCALLS</b>	Number of <b>INCALLS</b> that connected to a non-ACD destination, were redirected out of the vector, were given a busy signal, or were disconnected.  <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> .  <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Time <b>OTHERCALLS</b> spent in the vector until the disposition was known.  <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another destination by way of a "go to vector", "route to", or "adjunct routing" command to a destination other than a split/skill or direct agent. (Calls that route to a split/skill or direct agent by way of a "route to," "adjunct routing," or "messaging split/skill" command are still tracked in the vector.)  <b>OUTFLOWCALLS</b> includes <b>GOTOCALLS</b> and <b>INTERFLOWCALLS</b> .	C

Table 23:

Database Item	Description	Type
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in the vector before being redirected. <b>OUTFLOWTIME</b> includes <b>GOTOTIME</b> .	C
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE</b> (index)	Date on which data was collected.	C
<b>STARTTIME</b> (real-time)	Start time for the interval data was collected.	S
<b>VDISCCALLS</b>	Number of calls forced to disconnect because the vector disconnect timer timed out or because the call reached a vector "stop" command without being queued.  Available on Generic 3 Version 2 and later switches.	C
<b>VECTOR</b> (index)	Vector number that this row represents.	A

Table 24:

Database Item	Description	Type
<b>INVECTOR</b> (real-time)	Current number of <b>INPROGRESS</b> calls that are being processed by a vector. Calls that are in queue and calls that are ringing are still counted as <b>INVECTOR</b> . Calls are no longer counted as <b>INVECTOR</b> when they connect to a station, are answered by an agent, abandon, or outflow from the VDN. <b>INVECTOR</b> includes <b>INQUEUE</b> and <b>INRING</b> .	S
<b>LOOKATTEMPTS</b>	Number of look-ahead interflow attempts for calls in this VDN. Available on Generic 2.2 and Generic 3 switches.	C
<b>LOOKFLOWCALLS</b>	Number of <b>INTERFLOWCALLS</b> that were redirected by way of the look-ahead interflow feature. Available on Generic 2.2 and Generic 3 switches.	C
<b>MAXOCWTIME</b>	Maximum time during the collection interval that a caller waited in the VDN before being answered or connected, abandoning, being redirected, receiving busy signal or being disconnected. This applies only to the first disposition of the call.	C
<b>MAXWAITING</b>	Maximum number of calls in progress in the VDN during the collection interval.	C
<b>NOANSREDIR</b>	Number of split/skill ACD calls that rang at agent stations and then were automatically requeued to the split's/skill's queue by the Redirection on No Answer feature because they were not answered. Available on Generic 3 Version 2 and later Generic 3 switches.	C
<b>NUMTGS</b>	Number of trunk groups assigned to this VDN.	A
<b>OLDESTCALL</b> (real-time)	Amount of time the oldest call has been waiting in this VDN to be answered.	S
<b>OTHERCALLS</b>	<b>OTHERCALLS</b> include forced busy, forced disconnect, outflow calls and non-ACD calls that were answered. <b>OTHERCALLS</b> includes <b>BUSYCALLS</b> , <b>CONNECTCALLS</b> , <b>DISCCALLS</b> , and <b>OUTFLOWCALLS</b> . <b>OTHERCALLS = INCALLS - ACDCALLS - ABNCALLS</b>	S
<b>OTHERTIME</b>	Duration of all <b>OTHERCALLS</b> until the calls leave the VDN (for example, calls drop, are sent to another VDN, are transferred, or are sent outside the switch). <b>OTHERTIME</b> includes <b>BUSYTIME</b> , <b>CONNECTTIME</b> , <b>CONNTALKTIME</b> , <b>DISCTIME</b> , and <b>OUTFLOWTIME</b> .	C

**Table 24:**

<b>Database Item</b>	<b>Description</b>	<b>Type</b>
<b>OUTFLOWCALLS</b>	Number of <b>INCALLS</b> that were redirected to another VDN or to a destination outside the switch by way of a “route to” or “adjunct routing” command.  <b>OUTFLOWCALLS</b> includes <b>INTERFLOWCALLS</b> .	C
<b>OUTFLOWTIME</b>	Time all <b>OUTFLOWCALLS</b> spent in this VDN before being redirected.	C
<b>PERIOD1-9</b>	Time periods defining the way answers/connects and abandons are collected for the call profiles.	A
<b>PERIODCHG</b>	Indicates whether or not the periods for call profiles were changed during the collection interval.	A
<b>PHANTOMABNS</b>	Number of ACD calls and calls that routed to an agent or extension with talk time less than the value of the phantom abandoned call timer.  Available on Generic 3 switches.	C
<b>RETURNCALLS</b>	Number of calls that reached this VDN via the VDN return destination feature.  Available on Generic 3 Version 3 and later switches.	C
<b>RINGCALLS</b>	Number of split/skill and direct agent ACD calls that rang at agent positions.  Available on Generic 2 and Generic 3 switches.	C
<b>RINGTIME</b>	Time split/skill and direct agent ACD calls spent ringing at agent positions independent of final disposition.  Available on Generic 2 and Generic 3 switches.	C
<b>ROW_DATE (index)</b>	Date the information was collected.	C
<b>SERVICELEVEL</b>	Number of seconds in which calls must be answered/connected to be considered acceptable.	A
<b>SKILLACWTIME1-3</b>	ACW time spent by agents for calls answered in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C
<b>SKILLCALLS1-3</b>	Number of calls answered by agents in each VDN skill preference.  Available on Generic 2.2 and Generic 3 Version 2 switches with EAS.	C

# General Information

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## Introduction

This chapter describes the major software differences between Issue 1.0 (r3v4aj.g) and Issue 1.1 (r3v4ao.e) of the *CentreVu*<sup>™</sup> Call Management System Release 3 Version 4 (*CentreVu* CMS) software.

The chapter is organized into the following sections:

- Installing This Issue of CMS on INTEL Platforms
- Installing This Issue of CMS on Sun Platforms
- Changes to Data, Database Items, and Calculations
- Changes to Reports
- Changes to Timetable and Shortcut
- Changes to Dictionary
- Changes to Exceptions
- Changes to ACD Administration
- Changes to User Permissions
- Changes to System Setup
- Changes to Maintenance
- Changes to Reports
- Changes to Forecast
- Changes to the User Interface
- Miscellaneous
- Compatibility
- Change Pages — Administration Document
- Change Pages — Installation and Maintenance Document
- Change Pages — Reports Document
- Change Pages — Custom Reports Document.

## Installing This Issue of CMS on *INTEL* Platforms

The following procedures allow you to upgrade your CMS software at your convenience. Follow these instructions carefully.

---

### Preupgrade Procedure

You **must** complete the following steps prior to beginning the upgrade.



**Failure to complete the preupgrade steps may result in an inability to recover from an unsuccessful upgrade, possible loss of data, and/or significant recovery time.**

1. As a precaution, ensure that copies of the current CMS R3V4 software load and the latest full backup tapes are available.

*Failure Recovery:* If you do not have a current CMS R3V4 software load, call the AT&T Call Center Helpline at 1-800-344-9670. If you do not have a current full maintenance backup available, perform a full maintenance backup before proceeding with these steps.

2. From the system console, log in as *root*.
3. Verify that the tape drive status light is off and the drive is not being used for any other purpose (for example, scheduled backups).

*Failure Recovery:* If the tape light remains on, do the following steps based on the host computer model you have:

*AT&T 6386 and StarServer<sup>®</sup> computers*

- a. Put a writable tape into the drive. Wait for the tape to reposition.
- b. Eject the tape.
- c. Put the tape back in and wait for it to reposition again.
- d. Enter this command at the # prompt: `> /dev/scsi/qtape1`
- e. The tape light should go out.

*3332 computers*

- a. Put a writable tape into the drive. Wait for the tape to reposition.
- b. The tape light should go out.

4. Verify that the tunable parameters are set to the recommended CMS values by entering:

```
/cms/toolsbin/chktunes
```

You will see the message `Checking the System Tunables for correct CMS values`. If a message displays indicating that the check was successful, continue with Step 5.

*Failure Recovery:*

If any messages display about the tunables not being correct, call the AT&T Call Center Helpline on 1-800-344-9670.

5. Enter the `cmsadm` command to display the CMS administration menu. Select the `backup` option.

If CMS is turned on, the program automatically turns it off just long enough to back up the real-time tables. CMS is on for almost all of the backup and for all of the verification. The program takes approximately 50 minutes to write each tape that is needed for the backup. For more information, see the “Performing a CMSADM Backup” section in Chapter 8 of the *CMS R3V2 Installation and Maintenance* (AT&T 585-215-122) document.

*Failure Recovery:* The following error messages are the most common during a `cmsadm` backup and recovery.

```
– Request failed. See /cms/install/logdir/backup.log  
for more information.
```

If the window displays this message, you need to restart the backup after correcting the problem. Follow these steps to correct the problem:

- a. Replace the tape in the tape drive. The tape may not be seated correctly, or the tape may have been removed during the backup.
- b. Turn off write protect if the black arrow in the upper left-hand corner of the cartridge tape is pointed to “safe.”
- c. The tape is bad if this message also displays on the console terminal:  

```
WARNING: ST01: HA 0 TC 3 LU 0: Err  
60503005 CMD 0000000A Sense Key 00000004 Ext  
Sense 00000000. Discard that tape and try another one.
```

The following error displays if you are performing a multiple tape backup, the tape you inserted is not the first tape (it is the second, third, etc.), and the tape is write protected.

```
- That didn't work, cannot open "/dev/scsi/qtape1"  
  Change to part X and press RETURN key. [q]  
  Permission denied.
```

You do not have to restart the backup. Simply remove the tape from the tape drive, turn off write protect by moving the black arrow to point opposite "safe," reinsert the tape into the drive, and continue the backup.

As the backup progresses, the program displays a series of dots to indicate that it is writing files to tape, one dot per file.

You may have a problem if you notice one of the following:

- You see that dots are not printing (wait at least 10 minutes or longer with a huge table).
- The tape is not spinning.
- Messages are not displayed informing you to change tapes or that the backup has completed.

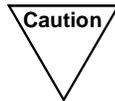
If you encounter problems, call the AT&T Call Center Helpline on 1-800-344-9670.

## Software Upgrade Procedure

The `installpkg` command will automatically upgrade your system.



**Make sure that you have the cartridge tape that contains the new CMS base load. The tape for this upgrade should specify that it is Issue 1.1 (load r3v4ao.e) and that it is for the *INTEL* platform.**



You must have completed the Preupgrade Procedure before you continue with the steps below. The upgrade procedure will result in approximately 30 to 60 minutes of outage on the CMS R3V4.



It is no longer necessary to turn off CMS; you will be prompted to do so in Step 11.

Use the following steps to upgrade your CMS software.

1. From the system console, log in as `root`.
2. Enter the `installpkg` command.
3. When prompted, select the cartridge tape option.
4. The program requests that the tape be inserted into the tape drive. Insert the CMS software package cartridge tape into the tape drive, wait for the tape drive to reposition, and then press **Return**.

*Failure Recovery:* For Steps 4 and 5, proceed through the tasks below until you recover from the tape drive failure:

- Retry:
    - a. Follow the prompts to exit the `installpkg` program.
    - b. Reposition the cartridge tape in the tape drive.
    - c. Restart the Software Upgrade Procedures.
  - Reboot the CMS by entering the `shutdown -i6 -g0 -y` command. Restart the Software Upgrade Procedures.
  - If tape problems persist, call the AT&T Call Center Helpline on 1-800-344-9670.
5. When prompted, press **Return** to retension the tape. Retensioning the tape takes approximately 3 minutes.

6. After the tape retentions, the program displays information on selecting the packages to be installed. Press **Return** to continue.
7. Select the Call Management System package, and press **Return**.
8. Press **Esc** to indicate that all selections have been made. Press **Return**. Press **Return** again in response to the `REMINDER!` message.

The program takes about 3 minutes to locate the CMS software on the tape and then verifies that the software packages required to run with CMS are present.

*Failure Recovery:* If a required software package is missing, an error message appears indicating that CMS cannot be installed. Press **Esc** to stop the upgrade. Since CMS is still running the old load, stopping the upgrade now is not service-affecting. Write down the missing package, and call the AT&T Call Center Helpline on 1-800-344-9670. If you turned CMS off, you can turn it back on.

9. Do this step only if you are upgrading to the `r3v4ao.e` load for the **first** time; otherwise, go to Step 10.

The program informs you that an `idbuild` is necessary and then rebuilds the *UNIX*<sup>\*</sup> operating system. Follow the steps below depending on whether the `idbuild` passes or fails.

**Idbuild passes** — An `IMPORTANT NOTICE` informs you that the machine must be rebooted. Also, a *UNIX* message indicates that the installation failed (but actually it did not), and another *UNIX* message tells you to press Enter to install other packages or Esc to skip these packages.

- a. Press either the **Return** key or the **Esc** key. (Both keys produce the same result since you are only installing the one CMS package.)
- b. After about 2 minutes, a message displays indicating an automatic shutdown is being initiated, you will need to reboot the system. You can reboot the system in one of two ways:
  - Press the **Return** key which requires a manual reboot. **Wait** for the prompt `Reboot the system now` to appear, and then press the Reset button on the CMS processor.



Do not press Reset until you see the `Reboot the system now` message; otherwise, file system damage may occur.

- Press the **Esc** key. The *UNIX* system prompt returns. Then, execute the `shutdown -i6 -g0 -y` command.

---

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

- c. Restart the Software Upgrade Procedure from Step 1 when the `Console Login:` prompt displays. As you proceed through these steps a second time, Step 9 will be skipped.

**ldbuild fails** — A message displays indicating that the `ldbuild` failed and that you will not be able to install this release of CMS.

- a. Press the `[Esc]` key to cancel the upgrade. The `#` prompt displays.
  - b. Call the AT&T Call Center Helpline on 1-800-344-9670 and report the `ldbuild` failure and the upgrade cancellation.
  - c. Log into CMS and verify that the CMS is still collecting data.
10. The program now asks if you backed up your file systems. If you followed the preupgrade instructions, you have already backed up your file system. Enter `y`.

If you did not follow the preupgrade instructions, enter `n` and refer to the Preupgrade Procedure for information on backing up your file system. Then, restart the Software Upgrade Procedure.

11. Next, the program asks if you want to turn off CMS. Enter `y` to proceed with the upgrade.

If you enter `n`, you will be returned to the system prompt.

If you answer `y`, the program continues:

```
Stopping UNIX log ... done
>>Retaining customer data.
/etc/conf/init.d/ilog
/etc/conf/node.d/osm
/etc/logit
/usr/bin/cms
/usr/bin/cmsadm
. . . .
. . . .
. . . .
```

The program takes about 5 to 10 minutes to remove the software associated with the previous issue of CMS. You may ignore any errors or warnings that occur during this step and the next. Critical errors will be detected during the package audit.

12. When the appropriate software has been removed, the program begins the download of the new issue of CMS.

```
Removal of Call Management System (xxxxxx) is complete
## Installing files from cartridge tape
. . . . .
. . . . .
. . . . .
. . . . .
```

The program takes about 10 to 20 minutes to download the CMS R3V4 software from the cartridge tape to the hard disk. As the software is downloaded, several rows of periods display to indicate progress. Next, a list of downloaded files displays.

13. After the download, the program audits the new package installation.

```
## Auditing package installation
```

The audit takes about 5 to 10 minutes to complete.

*Failure Recovery:* If the audit fails, perform the following steps:

- a. Write down the audit errors.
- b. Call the AT&T Call Center Helpline on 1-800-344-9670.
- c. Reboot CMS by entering the `shutdown -i6 -g0 -y` command.
- d. Restart the Software Upgrade Procedure.
- e. If the audit passes, proceed to Step 14. If the audit fails again, execute the `shutdown -i6 -g0 -y` command. Install the previous issue of CMS using the `installpkg` command.

14. If the audit is successful, the program upgrades your CMS data.

The upgrade of CMS data may take up to an hour — but in most cases takes significantly less time. Dots display to indicate progress.

*Failure recovery:* If the upgrade fails, call the AT&T Call Center Helpline on 1-800-344-9670.

In some cases, the *UNIX* kernel is rebuilt. If the rebuild fails, note the failure exactly, and call the AT&T Call Center Helpline on 1-800-344-9670.

15. If a message displays indicating an automatic shutdown is being initiated, you will need to reboot the system. You can do this in one of two ways:

- Press the **Return** key which requires a manual reboot. **Wait** for the prompt `Reboot the system now` to appear, and then press the Reset button on the CMS processor.



Do not press Reset until you see the `Reboot the system now` message; otherwise, file system damage may occur.

- Press the **Esc** key. The *UNIX* system prompt returns. Then, execute the `shutdown -i6 -g0 -y` command.
16. After the tape finishes rewinding (tape drive light is not lit), remove the cartridge tape.
17. After the CMS software is installed, enter the `cmsadm` command to display the CMS administration menu. Select the `run_cms` option, and turn on CMS to start collecting data.

The program takes a few minutes to initialize the system parameters. Turning on CMS initializes the communications link between the CMS software and the switch

## Post-Upgrade Procedure

After the upgrade, complete the following steps:

1. From the system console, log in as *root*.
2. Enter the `cmsadm` command to display the CMS administration menu. Select the `backup` option.

See Step 5 of the Preupgrade Procedure for information about the `cmsadm` backup and the failure recovery steps.

3. Enter `exit` at the `#` prompt.
4. Log in as the CMS administrator.
5. A full CMS Maintenance Backup **must** be done prior to any incremental backups that are either scheduled or manually completed.



If this step is not completed, any incremental backups will fail, since they must follow a full backup of the current load.

6. Contact the AT&T Call Center Helpline (1-800-344-9670), and notify the agent that the upgrade to the new issue of CMS has been completed.



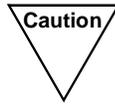
It is important to complete this step so the TSC can check the error logs and update its database.

This completes the upgrade of the Call Management System R3V4.

---

## Installing This Issue of CMS on *Sun* Platforms

The following procedures describe how to upgrade the CMS software on *Sun SPARCserver*\* computers. Follow these instructions carefully.



To do an upgrade, you must have sufficient free space on your disk to accommodate all the data you want to collect. See the “Preupgrade Procedures” section for details.

If your current disk space allocation specifies more items to be measured for longer lengths of time than you actually have space for on your disks, you must do one or more of the following:

- Purchase additional disks.
- Reduce the length of time for which the data is stored.
- Reduce the number of entities measured before you do an upgrade.

---

\* SPARCserver is a trademark of SPARC International, Inc.

## Preupgrade Procedures

Before you upgrade a system to a new base load or release, do the following:

- Do a full file system backup. See the *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance* (AT&T 585-215-807) document for information on performing a CMSADM backup.
- Make sure that you have the CD-ROM that contains the new CMS base load. The CD-ROM should specify that it is Issue 1.1 (load r3v4ao.e) and that it is for the *Sun* platform.
- Verify you have sufficient space in */tmp* by entering the `df -l /tmp` command.

Note

*CentreVu* CMS requires 100,000 blocks.

- Verify you have sufficient space in */cms* by doing the following:
  1. Determine the amount of available space by entering the `df -l /cms` command.
  2. Determine the amount of space required by the current CMS package by entering the following command.

```
pkgparam cms IBSblocks IBSinodes
```

The number of blocks and inodes are displayed.

Note

*CentreVu* CMS R3V4 requires 101,209 blocks and 1642 inodes.

3. Compute the difference between the old and new load for blocks and inodes, and compare the amount of available space computed in Step 1.

## Upgrade Procedures

**Prerequisites:** You must be logged in as *root*, the computer must be in run-level 2 or 3, all file systems must be mounted, and CMS must be turned OFF.

**Note**

The upgrade process will take approximately 1 hour to complete.

To upgrade CMS, use the following **required** procedures:

- Remove installed field updates (if present).
- Remove the current CMS base load.
- Install the new *Solaris*\* patches (if needed).
- Install the new *CentreVu* CMS base package.

## Removing Installed Field Updates

Do these steps to determine if a field update is installed.

1. Start the remove installed field update procedure by entering:

```
# pkginfo -x cms.*
```

The program responds:

```
cms                AT&T CentreVu (TM) Call Management System
                   (sparc) r3v4xx.x
cms.2              AT&T CentreVu (TM) Call Management System
                   (sparc) r3v4xx.x.x
```

**Note**

Write down the *CentreVu* CMS load number in case you need it for later reference.

If more than one package is displayed (for example, *cms .2*), then a field update is installed.

---

\* Solaris is a registered trademark of Sun Microsystems, Inc.

2. Enter the following command:

```
# pkgrm cms.2
```

The program responds:

```
The following package is currently installed:
  cms.2                Call Management System
                      (sparc) r3v4xx.x.x

Do you want to remove this package?
```

3. Answer *y*.

The program responds with a list of files that will be changed due to the removal of the update:

```
## Verifying package dependencies.
## Processing package information.
## Executing preremove script.
## Removing pathnames in class <ind>
/cms/install/bin/upd_save <shared pathname not removed>
/cms/install/bin/turn_on_cms <shared pathname not removed>
/cms/install/bin/turn_off_cms <shared pathname not removed>
/cms/install/autoconfig <shared pathname not removed>
/cms/install/auditmap <shared pathname not removed>
## Removing pathnames in class <edit>
>> Leaving sun patches installed.
## Removing pathnames in class <sun_fix>
>> Leaving sun patches installed.
## Removing pathnames in class <op_fix>
>> Leaving other package fix files installed.
## Removing pathnames in class <data>
>> Retaining customer files and directories.
## Executing postremove script.
```

If the removal is successful, this message displays:

```
Restoring old CMS software
/cms/install/auditmap
/cms/install/autoconfig
/cms/install/bin/turn_off_cms
/cms/install/bin/turn_on_cms

Updating installation software database.

Removal of Call Management System (r3v4xx.x.x) is complete
## Updating system information.

Removal of <cms.2> was successful.
```

The system prompt returns to your screen.

The installed field updates (if present) are removed from the CMS software. You can now remove the current CMS base package.

## Removing Current CMS Base Package

Do these steps to remove the current CMS base package:

1. Start to remove the current CMS base package by entering:

```
# pkgrm cms
```

The program responds:

```
The following package is currently installed:
cms                Call Management System
                   (sparc) r3v4xx.x

Do you want to remove this package?
```

2. Answer `y`. The system responds:

```
## Removing installed package instance <cms>

This package contains scripts which will be executed with
super-user permission during the process of removing this
package.

Do you want to continue with the removal of this package
[y,n,?,q]
```

3. Answer `y`. The system responds:

```
## Verifying package dependencies.
## Processing package information.
## Executing preremove script.

Do you want to preserve CMS data? [y,n,?]
```

4. Answer `y`.

The system responds:

```
CMS will be removed from this machine; the data will be
preserved.
```

```
Are you sure this is correct? [y,n,?]
```

5. Answer `y`. The system responds:

```
All file systems should be backed up before continuing.
See the Maintenance chapter in the Sun CMS Installation and
Maintenance Manual for instructions.
```

```
Have you backed up the file systems? [y,n,?]
```

**Note**

If you have not backed up the file systems, answer “n.”

Back up your file systems and restart the upgrade process.

6. Answer `y` if you have done backups. The system responds:

```
## Removing pathnames in class <ind>
/usr/lib/cms/trmaps
/usr/informix/etc/termcap
/usr/bin/cmssvc
.
.
.
```

If the removal is successful, this message displays:

```
Removal of <cms> was successful.
```

The system prompt returns to your screen.

After you remove the current CMS base package, you can install the *Solaris* patches, and then the new *CentreVu* CMS base package.

## Installing New Solaris Patches

If *Solaris* patches are available, you must install them on your system.

Do these steps to install new *Solaris* patches:

**Note** The CD-ROM containing the new patches will be required in the CD-ROM drive.

1. Remove the CMS CD-ROM from its case. If you have an external CD-ROM drive, follow the steps below. Otherwise, go to Step 2.
  - a. Place the CMS CD-ROM in the CD-ROM caddy. When the CD-ROM is properly inserted in the caddy, the CD-ROM label is visible.
  - b. Insert the CD-ROM caddy into the CD-ROM drive slot.
  - c. Go to Step 5.
2. Open the CD-ROM drive tray by pressing the eject button on the CD-ROM drive unit.
3. Gently press the CD-ROM in place in the CD-ROM disk tray. When the CD-ROM is properly inserted in the disk tray, the CD-ROM label faces up.
4. Push the CD-ROM drive tray in (towards the system unit) until it closes.
5. Enter the following command to verify the name of the CD-ROM:

```
# mount
```

6. The program responds with a list of devices and file systems currently mounted. Locate the device which corresponds to the CD-ROM drive. Use that path for the installation of the *Solaris* patches.

```
. . .  
. . .  
. . .  
/cdrom/cms#1 on /vol/dev/dsk/.....  
#
```

7. For example, start the upgrade procedure by entering:

```
# pkgadd -d /cdrom/cms#1
```

The system responds:

The following packages are available:

```

1 cms          CentreVu(TM) Call Management System
                (sparc) r3v4xx.x
2 spatches    CMS Supplied Solaris Patches
                (sparc) 1.0

```

Select package(s) you wish to process (or 'all' to process all packages). (default: all) [?,??,q]:

If the *spatches* package is displayed, you must install it.

**Note**

Do **not** select `all` to process all packages. The *spatches* package must be installed before the CMS software package.

8. Enter the number that corresponds to the *spatches* package (2 in this example). The system responds:

```
Processing package instance <spatches> from </dev/rmt/0>
```

```
CMS Supplied Solaris Patches
(sparc) 1.0
AT&T
```

This appears to be an attempt to install the same architecture and version of a package which is already installed. This installation will attempt to overwrite this package.

```
## Processing package information.
## Processing system information.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.
## Checking for setuid/setgid programs.
```

This package contains scripts which will be executed with super-user permission during the process of installing this package.

```
Do you want to continue with the installation of <spatches>
[y,n,?] y
```

9. To continue with the installation of this package, enter `y`. The system responds:

```
Installing CMS Supplied Solaris Patches as <spatches>

XX Installing part 1 of 1.
Spooling 100982-02
Spooling 100992-03
Spooling 100999-51
Spooling 101014-05
Spooling 101018-07
.
.
.

Patches successfully saved

[ verifying class <sun_fix> ]
## Executing postinstall script.

WARNING
Solaris patches have been spooled into /tmp/patches. To
install the Solaris patches, run the following command:
    /tmp/patches/install-patches

Once the Solaris patches are installed, a reboot is necessary.
The reboot command will be provided by the install_patches
script.
```

The program continues:

```
The following packages are available:
 1 cms          CentreVu(TM) Call Management System
                (sparc) r3v4xx.x
 2 spatches     CMS Supplied Solaris Patches
                (sparc) 1.0

Select package(s) you wish to process (or 'all' to process all
packages). (default: all) [?,?,q]:
```

10. Answer `q` to quit.

11. To install the *Solaris* patches, enter the following command:

```
# /tmp/patches/install_patches
```

**Note**

Once the *Solaris* patches are installed, a reboot is necessary. Be sure to run the `/tmp/patches/install_patches` command before rebooting.

The system responds:

```
# /tmp/patches/install_patches
@(#) installpatch 4.11 94/06/23

generating list of files to be patched
Save old verisons of files to be patched
/var/sadm/patch/100982-02/save/kernel
/var/sadm/patch/100982-2/save/kernel/fs
/var/sadm/patch/100982-2/save/kernel/fs/fifofs
XXX blocks
Installing patch packages
Doing pkgadd of SUNWcsr package:

Installation of <SUNWcsr.2> was successful.
generating
```

**Note**

Depending on the number and size of the *Solaris* patches being installed, the installation may take over an hour.

Response continues:

```
Patch installation finished
@(#) installation finished
generating list of files to be patched
Save old versions of files to be patched
/var/sadm/patch/100992-03/save/kernel
/var/sadm/patch/100992-03/save/kernel/drv
.
.
.
Installing patch packages
Doing pkgadd of SUNWcsr package:

Installation of <SUNWcsr.7> was successful.
Patch installation finished
To complete the solaris patch installation, one should reboot
with the following command: shutdown -y -i6 -g0
#
```

12. To complete the *Solaris* patch installation, you must reboot your system using the following command:

```
# shutdown -y -i6 -g0
```

The installation of the new patches is now complete. The system prompt returns to your screen. You are now ready to install the new CMS base package.

## Installing New *CentreVu* CMS Software

Do these steps to install the new *CentreVu* CMS base package:

**Note**

The CD-ROM containing the new *CentreVu* CMS software load will be required in the CD-ROM drive

1. Remove the CMS CD-ROM from its case. If you have an external CD-ROM drive, follow the steps below. Otherwise, go to Step 2.
  - a. Place the CMS CD-ROM in the CD-ROM caddy. When the CD-ROM is properly inserted in the caddy, the CD-ROM label is visible.
  - b. Insert the CD-ROM caddy into the CD-ROM drive slot.
  - c. Go to Step 5.
2. Open the CD-ROM drive tray by pressing the eject button on the CD-ROM drive unit.
3. Gently press the CD-ROM in place in the CD-ROM disk tray. When the CD-ROM is properly inserted in the disk tray, the CD-ROM label faces up.
4. Push the CD-ROM drive tray in (towards the system unit) until it closes.
5. Start the upgrade procedure by entering:

```
# pkgadd -d /cdrom/cms
```

The system responds:

```
The following packages are available:
 1 cms           CentreVu(TM) Call Management System
                  (sparc) r3v4xx.x
 2 spatches     CMS Supplied Solaris Patches
                  (sparc) 1.0

Select package(s) you wish to process (or 'all' to process all
packages). (default: all) [?,??,q]:
```

6. Enter the number that corresponds to the *CentreVu* CMS software package. The system responds:

```
Processing package instance <cms> from </dev/rmt/0>

CentreVu(TM) Call Management System
(sparc) r3v4xx.x

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All Rights Reserved

Using </cms> as the package base directory.

Installing the CentreVu(TM) Call Management System (r3v4xx.x).

This is an upgrade.

## Processing package information.
## Processing system information.
   xxx package pathnames are already properly installed.
## Verifying package dependencies.
## Verifying disk space requirements.
## Checking for conflicts with packages already installed.

The following files are already installed on the system and
are being used by another package:
    */cms/install/logdir/admin.log
    */etc/init.d/sysetup
    */etc/system
    .
    .
    .

*-conflict with a file which does not belong to any package.
Do you want to install these conflicting files? [y,n,?,q]
```

7. Answer *y*. The system responds:

```
## Checking for setuid/setgid programs.  
  
The following files are being installed with setuid and/or  
setgid permissions:  
    /cms/bin/mqpeek <setuid root>  
    /cms/bin/spi <setuid root>  
    /cms/toolsbin/cmsu <setuid root>  
    /cms/toolsbin/initSimConf <setuid root>  
    /cms/toolsbin/initSimConf <setuid root>  
    /cms/toolsbin/psx <setuid root>  
    /cms/toolsbin/psx <setuid root>  
    /cms/toolsbin/shmdump <setgid sys>  
  
Do you want to install these setuid/setgid files [y,n,?,q]
```

8. Answer *y*. The system responds:

```
This package contains scripts which will be executed with  
super-user permission during the process of installing this  
package.  
  
Do you want to continue with the installation of <cms>  
[y,n,?,q]
```

9. Answer *y*.

The system responds:

```
Installing CentreVu(TM) Call Management System as <cms>

## Executing preinstall script.
## Installing part 1 of 1.
[ verifying class <data> ]
.
.
.
/etc/SUNWconn/x25/template/cms.spin1.wan
/etc/rc0.d/K92cms
/usr/bin/cms
/usr/bin/cmsadm
/usr/bin/cmssvc
/usr/informix/etc/termcap
/usr/lib/cms/trmaps
[ verifying class <op_fix> ]
.
.
.

## Executing postinstall script.

## Upgrading Customer CMS data . . .
.....
Customer CMS data successfully upgraded.

Setting Solaris 2.4 system tunable parameters for CMS.
No changes to tunable parameters were required.

Installation of <cms> was successful.
#
```



If you made changes to your cms or cmssvc .profiles, the following message will appear:

A manual merge may be necessary to restore custom entries. The original content was saved in profile.save prior to changes.

The machine will either reboot if needed or return to the system prompt.



If you are instructed to run shutdown, use the displayed command.

The installation of the new *CentreVu* CMS base package is now complete. The system prompt returns to your screen.

10. Enter:

```
# eject cdrom
```

11. Remove the *CentreVu* CMS CD-ROM from the CD-ROM drive.

## Post-Upgrade Procedures

**Prerequisites:** You must be logged in as *root* and *CentreVu* CMS must be turned OFF.

Upgrading CMS uses the following required procedures:

- Verify the installation via `pkgchk`.
- Restart *CentreVu* CMS.
- Back up upgraded *CentreVu* CMS software.

## Verifying *CentreVu* CMS Software Installation

Do the following to verify the installation of the new *CentreVu* CMS software:

1. Enter `pkgchk` command:

```
# pkgchk -n cms
```

If the software installation is successful, the system prompt returns to your screen.

If errors are detected, see the *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance* (AT&T 585-215-807) document for information on checking installed software packages.

## Restarting CentreVu CMS

Do the following to restart the *CentreVu* CMS software:

1. Access the *CentreVu* CMS Administration menu by entering:

```
# cmsadm
```

The system responds:

```
AT&T CentreVu(TM) Call Management system Administration Menu

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

2. Enter 9 to select the *run\_cms* option. The system responds:

```
Select one of the following
 1) Turn on CMS
 2) Turn off CMS
Enter choice (1-2):
```

3. Enter 1 to turn on *CentreVu* CMS.

The system responds:

```
Turning on X25, please wait

Starting the X.25 software - please wait
X.25 has found a valid license
The network has been brought up.

Please wait for initialization.
```

The system prompt returns to your screen.

## Backing Up Upgraded CentreVu CMS Software

Do a full *CentreVu* CMS maintenance backup as soon as possible.

In the Back Up Data window, you should use these defaults:

- `y` (yes) for the `Verify volume can be read after backup` field.
- All ACDs
- ACD-specific data
- System administration data
- Historical data
  - Full.

See the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.



*CentreVu* CMS incremental maintenance backups will fail if a full maintenance backup is not done.

---

## Changes to Data, Database Items, and Calculations

---

### Data

No major changes have been made to the way data is handled in *CentreVu* CMS.

---

### Database Items

For additional information on Database Items, please refer to Appendix A of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

The following database items have been added or changed:

No changes or additions have been made to *CentreVu* CMS database items.

---

### Calculations

For additional information on Calculations, please refer to Appendix A of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

No changes or additions have been made to *CentreVu* CMS calculations.

---

## Changes to Reports

For additional information on the Historical Reports subsystem, please refer to Chapter 4 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document and Chapter 3 of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

For additional information on the Real-Time Reports subsystem, please refer to Chapter 3 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document and Chapter 2 of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

---

### Vector Reports

- The column heading “Other Calls Connected” is now correctly labeled “Other Calls.”

---

### Agent Reports

- For all Agent reports, the agent states and agent status outputs now include direct agent values.

---

### Relative Time

- The help reference to the Timetable documentation for information on relative time intervals has been removed. Relative time intervals are not being supported as a *CentreVu* CMS R3V4 feature.

---

## Changes to Timetable and Shortcut

For additional information on Timetables and Shortcuts, please refer to Chapter 5 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### Timetable

If there are too many timetables scheduled to run for a particular minute, Timetable — Copy leaves the new timetable unscheduled rather than failing. A message displays to tell you that the new timetable must be manually scheduled to run.

---

### Shortcut

No changes have been made to Shortcut.

---

## Changes to Dictionary

For additional information on the Dictionary subsystem, please refer to Chapter 6 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### Database Tables

- The Dictionary has been updated to make the **OTHERCALLS** database item accessible for the current split (`csplit`) and previous split (`psplit`) tables.

---

## Changes to Exceptions

For additional information on the Exceptions subsystem, please refer to Chapter 7 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document and Chapter 4 of the *CentreVu™ CMS R3V4 Reports* (AT&T 585-215-801) document.

No changes were made to the Exceptions subsystem in this issue of *CentreVu CMS*.

---

## Changes to ACD Administration

For additional information on the ACD Administration subsystem, please refer to Chapter 8 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### Agent Trace

- CMS no longer allows you to enter an agent login ID that is longer than permitted by your switch.

If you have error log entries indicating that Agent Trace (aar) is producing core dumps, contact the AT&T Call Center Helpline on 1-800-344-9670.

---

## Changes to User Permissions

For additional information on the User Permissions subsystem, please refer to Chapter 9 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

No changes were made to the User Permissions subsystem in this issue of *CentreVu CMS*.

---

## Changes to System Setup

For additional information on the System Setup subsystem, please refer to Chapter 10 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### **Load Pseudo-ACD**

- If you exit the Load Pseudo-ACD window while a pseudo-ACD is loading, and then open the window again, the data in the input fields reflects the status of what you had previously entered.

---

## Changes to Maintenance

For additional information on the Maintenance subsystem, please refer to Chapter 11 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### Backup/Restore Devices

- CMS supports the *SPARCstorage* UniPack 2.5-gigabyte (GB) QIC tape drive on *Sun* platforms. The SCSI cartridge tape - 2.5 GB option has been added to the Backup/Restore Devices window.

---

## Changes to Custom Reports

For additional information on the Custom Reports subsystem, please refer to the *CentreVu™ CMS Custom Reports* (AT&T 585-215-802) document.

---

### Database Items

- The **DA\_ACWOADJCALLS** database item from the `magent` database table can now be used in custom reports.
- The **DA\_ACWOOFFCALLS** database item from the `magent` database table can now be used in custom reports.
- The **OBSERVINGCALL** database item from the `call_rec` database table can now be used in custom reports.
- The **OTHERCALLS** database item from the `csplit` and `psplit` database tables can now be used in custom reports.

---

## Changes to Forecast

For additional information on the Forecast subsystem, please refer to the *CentreVu™ CMS Forecast* (AT&T 585-215-812) document.

---

### Agent Positions Required Report

- The length of the `Number of agents` input field on the input window was increased.
- The lengths of the `Agents Req'd` and `Calls Carried/Interval` output fields on the report were increased.

---

### Trunks Required Report

- The length of the `Number of trunks` input field on the input window was increased to allow 3000 - 4000 as input.
- The lengths of the `Trunks Req'd` and `Calls Carried/Interval` report output fields were increased.

---

### Trunk Performance Report

- The `Consider incomplete days (y/n)?` input field can now be used to instruct Forecast to include (or not include) interval trunk group data that is marked as incomplete. Formerly, these rows were not used in the calculations.
- The report now shows how many of the busy intervals used in the calculation were marked as incomplete.

---

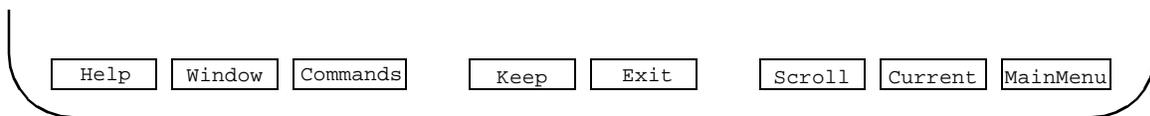
## Changes to the User Interface

For additional information on the user interface, please refer to Chapter 2 of the *CentreVu™ CMS R3V4 Administration* (AT&T 585-215-800) document.

---

### Screen-Labeled Keys (SLKs)

- Regardless of what terminal type you are using, you can now emulate the behavior of the CMS Screen-Labeled Keys (SLKs). To do this:
  1. Hold down the **CTRL** key and press the **p** key (CTRL-p).
  2. Type the number that corresponds to the SLK you want to invoke.For instance, if you wanted to run help, you would type:  
**CTRL-p 1.**
- For the NCR 2900/260lf terminal and other terminals that do not display their own key labels, CMS now displays the SLKs in a 4-4 format. This format matches the actual keyboard rather than the usual 3-2-3 format. See Figures 4-1 and 4-2.



**Figure 4-1: SLKs in a 3-2-3 Format**



**Figure 4-2: SLKs in a 4-4 Format**

- The `Save as default` SLK menu item has been disabled for the `Default Printer` and the `Current ACD` SLK menu items. To change the default printer or the current ACD, you need to do a `Modify` action. If you try to execute a `Save as default` for the `Default Printer` or `Current ACD` SLK menu items, the following message window displays:

```
Since none of the fields in this window allow defaults,
no defaults have been saved. However, the size of this
window has been saved.
```

---

## Miscellaneous

---

### AT&T *CentreVu* Supervisor

CMS software Issue 1.1 (r3v4ao.e) supports AT&T *CentreVu* Supervisor Version 1.0. *CentreVu* Supervisor is a windows-based interface to CMS that runs on a PC. *CentreVu* Supervisor offers you the advantage of using your own PC to log into CMS, view reports, manage calls, etc. In short, you can do everything you normally do with CMS from your PC. You can use *CentreVu* Supervisor to access and run the following CMS subsystems:

- Reports
- Dictionary
- Exceptions
- ACD Administration
- System Setup
- Maintenance
- User Permissions.

Call your AT&T Account Executive about purchasing *CentreVu* Supervisor.

---

### Correction — *INFORMIX* 5.04 Software

Issue 1 of this document incorrectly stated that you must update the *INFORMIX*<sup>\*</sup> software to version 5.04 to run *CentreVu* CMS R3V4 on an *INTEL* platform. *CentreVu* CMS R3V4 supports *INFORMIX* 4.10 on *INTEL* platforms. Therefore, you **do not** have to update the *INFORMIX* software for these machines.

---

### Installation

- If you run the `cmssvc acd_remove` command to remove an ACD and then execute the *UNIX* command `removepkg` or `pkgrm` before the `acd_remove` is complete, the following message displays:

```
There is an ACD removal in progress running in the
background. You must wait for this to complete before
continuing.
```

```
Check /cms/install/logdir/admin.log for status of the
remove.
```

---

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

- On the *Sun* platform, the QIC 2.5-GB tape drive replaces the QIC 150-MB tape drive. You can select the QIC 2.5-GB tape drive as the system's default when running the `cmssvc setup` command. Refer to the *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance, Issue 2* (AT&T 585-215-807) document for details on the QIC 2.5-GB tape drive.
- 

## CMSADM Backup

- The backup option is no longer available from the `cmssvc` menu. Now you have to invoke backups from the `cmsadm` menu.
  - CMS immediately turns on when the backup portion of a `cmsadm` backup is complete. Formerly, CMS was not turned back on until the tape verification was complete.
  - If you cancel a `cmsadm` backup, CMS returns to the state it was in when the backup was started. If CMS was on, it is automatically turned back on. If it was off, it continues to be off.
  - On the *Sun* platform only:
    - If your `cmsadm` backup requires only one tape, you are no longer prompted to insert the tape to begin the verification procedure.
    - The QIC 2.5-GB tape drive replaces the QIC 150-MB tape drive. You can select the QIC 2.5-GB tape drive during a `cmsadm` backup. Refer to the *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance, Issue 2* (AT&T 585-215-807) document for details on the QIC 2.5-GB tape drive.
- 

## Administration

- You can no longer use the quick `na` administration method to administer terminals, printers, and modems. You will have to use the complete `na` administration method.

---

# Compatibility

This section outlines the software, hardware, and switch compatibility requirements for this issue of *CentreVu* CMS.

---

## Software Compatibility

The following paragraphs outline software requirements for Issue 1.1 of R3V4 CMS to operate correctly.

CMS does not co-reside with other software packages. This includes packages that are running concurrently and packages that are only installed. CMS modifies the *UNIX* system tunable parameters automatically to accommodate system requirements.

This release of CMS software is compatible only with Version 1.6 and later of the CMS R2 Migration (PG-3E257). Earlier issues of CMS R2 will not migrate successfully.

## INTEL Platform

The following software is required for Issue 1.1 to operate correctly on the *INTEL* platform:

- *UNIX* System V Release 3.2.3 and associated utilities, including SCSI Support Package Version 2 and *UNIX* SVR 3.2.3 Maintenance Disk #1
- Korn Shell Version 11/16/88d 386 Release 2.0
- *INFORMIX* SE 4.10.UD1 (Runtime Version)  
*INFORMIX* SQL 4.10.UC2 (Development Version) is optional software with R3V4 CMS
- X.25 Network Interface Software Version 1.2.1 SL1.51.1.25.

## Sun Platform

The following software is required for Issue 1.1 to operate correctly on the *Sun* platform:

- *Solaris* 2.4 Hardware 3/95
- *SunLink*\* HSI/S 2.0 revision A, dated 6/93 (if you have the HSI/S card installed)
- 1.0 *Sun* Network Terminal Server revision A
- *SunLink* X.25 8.02 revision A, dated 10/94
- *INFORMIX* SE 5.04.UC1  
*INFORMIX* SQL 4.13.UD1 is optional.

---

\*SunLink is a registered trademark of Sun Microsystems, Inc.

## Hardware Compatibility

Issue 1.1 of the R3V4 CMS software is certified to run on the hardware outlined in the following paragraphs.

### ***INTEL* Platforms**

Issue 1.1 is certified to run on the following *INTEL* processor platforms:

- **6386 WGS 25/S and AT&T 6386 WGS 33/S**

For the WGS processors, the alternate console configuration is required. In addition to the base processor, the following may be added based on customer configuration needs:

- GPSC-AT/E X.25 kit(s) and 2-port RS232 cable(s)
- 4/16 MB Memory Expansion Board
- N80387-6386/25 or 6386/33 math coprocessor
- IPC 1600 Ports Card(s) and Ports Cabinet(s), or MEGAPLEX-96 board and Cluster Multiplexer(s)
- Remote Maintenance Package and software, Version 2.0.

- ***StarServer S***

For the *StarServer S* processor, the VGA 600 card and monitor are required for the console. In addition to the base processor, the following may be added based on customer configuration needs:

- Additional SIMM memory on the system board
- SCSI Streaming Tape Unit
- GPSC-AT/E X.25 kit(s) and 2-port RS232 cable(s)
- IPC 1600 Ports Card(s) and Ports Cabinet(s), or MEGAPLEX-96 board and Cluster Multiplexer(s)
- Remote Maintenance Package and software, Version 2.0.

- **3332**

For the 3332 processor, the following may be added based on your configuration needs:

- Additional SIMM memory on the system board
- SCSI Streaming Tape Unit
- GPSC-AT/E X.25 kit(s) and 2-port RS232 cable(s)
- MEGAPLEX-96 board (also IPC 1600 or Kickstart 2.5 board)
- Remote Maintenance Board (RMB).

## Sun Platforms

Issue 1.1 is certified to run on the following *Sun* processor platforms:

- *Sun SPARCserver 5*
  - *Sun SPARCserver 10*
  - *Sun SPARCserver 20.*
- 

## Switch Compatibility

Issue 1.1 of the R3V4 CMS software has been certified with ACD applications on the following switches:

- *DEFINITY*® Communications System Generic 3 Version 4 Issue 1.0 [QPPCN 784DR (G3r)] [QPPCN 785DR (G3i/s/vs)] and later
- *DEFINITY* Communications System Generic 3 Version 3 Issue 1.0 (QPPCN 701DR) and later
- *DEFINITY* Communications System Generic 3 Version 2 Issue 2.1 [QPPCN 644DR (G3i/s/vs)] [QPPCN 646DR (G3r)] and later
- *DEFINITY* Communications System Generic 3r Issue 8.5 and later (no QPPCN available)
- *DEFINITY* Communications System Generic 3s Issue 14.2 and later (no QPPCN available)
- *DEFINITY* Communications System Generic 3i Issue 13.3 (QPPCN 576DR) and later
- *DEFINITY* Communications System Generic 2.2 Issue 3.0 (with/without call center features) (QPPCN 696DR) and later
- *DEFINITY* Communications System Generic 2.1 Issue 3.3 (QPPCN 629DR) and later
- *DEFINITY* Communications System Generic 1.1 Issue 7.1 (QPPCN 559DR) and later
- System 85 R2V4 Issue 2.3 (QPPCN 560DR) and later.



It may be necessary to upgrade the switch release before installing or upgrading CMS.

---

## Change Pages — Administration Document

The following changes have been made to the *CentreVu* CMS Administration (AT&T 585-215-800) document. Please replace the applicable pages with the included change pages.

---

### Chapter 8 — ACD Administration

- To change agent skills, you only need read/write permission to the appropriate ACD. You do not need read/write permission to the skills involved in the change. The document has been updated to reflect this.  
Replace pages 8-13 and 8-14 with the updated page.
  - Updates to the agent trace feature have been made. Specifically, you cannot enter agent login IDs in the Activate Agent Trace window that are longer than permitted by your switch.  
Replace pages 8-37 and 8-38 with the updated page.
- 

### Chapter 11 — Maintenance

- The *SCSI cartridge tape - 2.5 GB* option has been added to the Backup/Restore Devices window.  
Replace pages 11-33 and 11-34 with the updated page.
- 

### Appendix B — Call Vectoring for Generic 3

- For G3V4 switches with the Vectoring (G3V4 Enhanced) option, the keyword matching capability has been disabled in the “hearing xxxxx” field of the “wait” vector step. A note has been added to specify to the reader where keyword matching is available.  
Replace pages B-29 and B-30 with the updated pages.

---

## Change Agent Skills (Generic 3 Version 2 or Later with EAS)

**Note**

This menu item appears only for Generic 3 Version 2 or later switches with the Expert Agent Selection (EAS) feature.

---

### Purpose

Use the Change Agent Skills window to view an agent's current skill assignments or to change up to four skills and the associated skill type (primary or secondary).

---

### Things to Know Before You Start

- When you change agent skills, the change is made in switch administration and remains in effect until you make another change.
- You cannot exit this window until the switch responds to your requested changes. You can, however, go to another window using the **MainMenu** or **Current** SLK.
- The skill that is administered as *First* has an impact on the way tracking is done for an agent. Extension calls, direct agent calls, and call-handling time are attributed to the first skill administered and successfully logged into.
- For Generic 3 Version 2 and Generic 3 Version 3 switches, the requested skill changes go into effect after the agent logs out.
- For Generic 3 Version 4 or later switches, the requested skill change takes place immediately for agents who are in the AUX work mode, available, or logged out. For agents who are handling calls (including non-ACD calls, calls on hold, and direct agent calls waiting in queue) or are in the ACW (After Call Work) work mode, the change is pending until the agent logs out, changes to AUX work mode, or completes all calls and after call work and becomes available. When the conditions specified above are met, the agent is automatically logged out and logged back in with the new skill set.

**Note**

For agents who frequently have calls on hold, skill changes can remain pending for a long time.

- Read Appendix D, “*CentreVu* CMS and the Expert Agent Selection Feature,” for information about EAS.
- See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.

## Prerequisite System Administration

- To change agent skills, you need **read/write** permission for the ACD Administration subsystem. See Chapter 9, “User Permissions—Feature Access.”
  - To view skill assignments, you need **read** permission for the ACD Administration subsystem.
- 

## Relationships to Other Subsystems

### Dictionary

To enter an Agent name in the `Agent` field or a Skill name in the `Skill` field, the name must first be entered in the Dictionary. See Chapter 6, “Dictionary.”

### Timetable

You can place the Change Agent Skills window on a timetable. See Chapter 5, “Timetable and Shortcut.”

**Note** When Timetable is used to change agent skills, information about the status of the change is not saved.

---

## Input Window

Use the Change Agent Skills window (Figure 8-9) to view an agent’s current skill assignments or to change up to four skills and the associated skill type (primary or secondary).

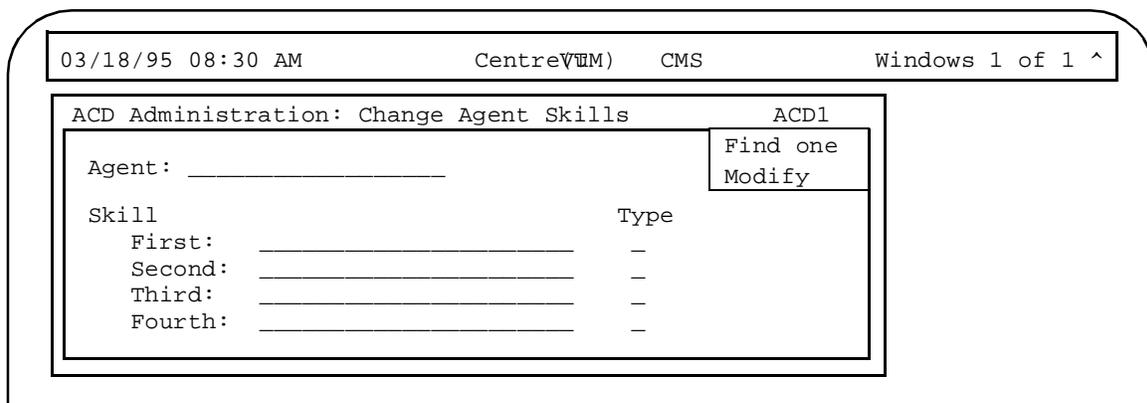


Figure 8-9: Change Agent Skills (Generic 3 Version 2 or Later with EAS)

## Input Window

Use the Split/Skill Call Profile Set window (Figure 8-18) to specify an acceptable service level for calls to wait in queue before being answered and to define the service level increments for splits/skills.

**Figure 8- 18: Split/Skill Call Profile Set Window**

## Field Descriptions

### Splits/Skills:

Enter the split or skill number(s) or name(s) (must be previously assigned in the Dictionary subsystem) you are searching for or modifying.

### Acceptable service level: (Required entry)

Enter the number of seconds that is acceptable for an ACD call to wait before connecting to an agent.

### Service level increments (seconds): (Required entry)

Enter a progressively greater number of seconds in each “to” field. The seconds before and after each word “to” define an increment in seconds of wait time.

Each of the nine increments can vary in length (for example, 0 to 15, 0 to 20, 0 to 26, 0 to 38, 0 to 43, etc.). Each increment represents a progressively longer wait time for the call and is used for both answered and abandoned calls.

# Activate Agent Trace

---

## Purpose

Use the Activate Agent Trace window to start or stop *CentreVu* CMS tracing of agent activities, including agent state changes.

---

## Things to Know Before You Start

- You can activate traces for a maximum of 25 agents. This limit applies to the number of agents administered to be traced across all ACDs. It does not take into account whether or not the agents are logged in.
  - The agent trace file rolls over (old records are overwritten by new records) when the number of records reaches your allocated number. You do not have to delete agent trace records. If you want to keep records of old agent traces, you should print them.
  - You cannot enter agent login IDs that are longer than permitted by your switch.
  - To list agents and dates for which there are data in the current trace file, select the List Agents Traced menu option.
  - See Chapter 2, “User Basics,” for the action list procedures, common rules for field entry items, and field editing information.
- 

## Prerequisite System Administration

- You must have Data Collection turned **on** for the ACD to start/stop agent traces. See Chapter 10, “System Setup—Data Collection.”
  - You need to specify what agent data and how much agent data are stored for use in historical reports before turning on an agent trace. See Chapter 10, “System Setup—Agent Trace Record Contents.”
  - To start or stop an agent trace, you need **write** permission for the ACD Administration subsystem. See Chapter 9, “User Permissions—Feature Access.”
  - To view agents being traced, you need **read** permission for the ACD Administration subsystem.
- 

## Relationships to Other Subsystems

### Historical Reports

You must start an agent trace before you can run an Agent Trace report. This report lists each agent activity and the time it occurred. The Agent Trace report can be helpful when evaluating how well individual agents are using their time. See Chapter 4, “Historical Reports,” for more information on the Agent Trace report.

## Input Window

You must complete this window (Figure 11-6) to assign a name and description to a full path name for a device. See Table 11-4 for descriptions of the fields on the Maintenance: Backup/Restore Devices input window.

```
03/10/95 00:30 AM          CentreVu(TM) CMS          Window 1 of 4 ^
Maintenance: Backup/Restore Devices
Device name: _____
Path: _____
Description: _____
Device type (Select one):
< > SCSI cartridge tape - 60 MB
< > SCSI cartridge tape - 150 MB
< > SCSI cartridge tape - 2.5 GB
< > SCSI cartridge tape - 5 GB
< > SCSI cartridge tape - 14 GB
Add
Delete
Find one
List all
Modify
Next
Previous
```

**Figure 11-6: Backup/Restore Devices Window**

## Input Fields

Table 11-4 includes definitions for and directions on completing all fields on the Maintenance: Backup/Restore Devices input window. See Figure 11-6 for an example of the input window.

**Table 4-1:**

Field	Definition
<b>Device Name:</b>	Enter a name you will use to refer to the device. For example, if you would like to refer to your storage device as <code>ddrive1</code> , enter <code>ddrive1</code> as the device name.
<b>Path:</b>	Enter the full <i>UNIX</i> system/ <i>Solaris</i> system path to access the specified storage device (for example, <code>/dev/scsi/qtape1</code> ).  The <i>UNIX</i> system/ <i>Solaris</i> system devices are described in your <i>UNIX</i> system/ <i>Solaris</i> system Administrator's Guide.
<b>Description:</b>	Enter a description that will help to identify the location or use of the storage device. For example, <code>tape drive B in computer room 221</code> .
<b>Device type (Select one):</b>	<p>&lt; &gt; SCSI cartridge tape - 60 MB</p> <p>&lt; &gt; SCSI cartridge tape - 150 MB</p> <p>&lt; &gt; SCSI cartridge tape - 2.5 GB</p> <p>&lt; &gt; SCSI cartridge tape - 5 GB</p> <p>&lt; &gt; SCSI cartridge tape - 14 GB</p> <p>Enter an <b>x</b> in the window next to the appropriate device type.</p> <p>Choose the correct capacity for your SCSI tape drive so that the approximation of the number of tapes needed for a full backup is accurate. Choosing the incorrect capacity does not affect the backup or restore operation or actual tape capacity.</p>

If a “wait” command is the last step in a vector (or is followed by a “stop” command), caller feedback continues beyond the specified wait time until the call is answered or the caller abandons the call. However, *CentreVu* CMS vector tracking of the call ends as soon as the specified wait interval expires.

#### Generic 3 Version 4

For Generic 3 Version 4 or later switches with the Vectoring (G3V4 Enhanced) option, the “wait” command can also have the following format:

wait-time xxx secs hearing xxxxx then xxxxxxxx

**Note**

The keyword matching capability has been disabled in the “hearing xxxxx” field. Therefore, you must type either the entire word (music, ringback, silence, or i-silent) or the extension. The keyword matching capability is enabled in the “then xxxxxxxx” field, so you can just type the first letter of the word (m for music, s for silence, c for continue, or r for ringback).

This new format adds the extension number of an audio or music source to the allowed values for the “hearing” option. The extension number you specify can be assigned to announcement or music equipment. If you specify an extension number for the “hearing” option, you must also specify a “then” option, which can be: silence, ringback, music, or continue. The “then” option is what the caller hears after the “wait” command times out (after the wait time you specify expires).

If you specify “continue” for the “then” option, the audio or music source you specified in the “hearing” option continues until a vector command that changes or stops the caller feedback is processed. If you specify something other than “continue” for the “then” option, the audio or music source specified for the “hearing” option is removed after the “wait” command times out and the feedback you specified for the “then” option is applied. If the audio or music source you specified for the “hearing” option cannot be connected, callers continue to hear the feedback (silence, ringback, or music) they are currently hearing.

This new “wait” command in effect combines the old “wait” and “announcement” commands into one command. With Generic 3 Version 4 and later switches, a single “wait” command can be used to delay vector processing while the caller hears, for example, an announcement followed by music.

If not already returned for an incoming call, answer supervision is sent to the serving switch just before a “wait hearing (extension number of audio or music source)” command is processed.

## Sample Vectors

This section shows examples of vectors that can be administered using the Vector Contents window and describes how the vectors work. See Chapter 8, "ACD Administration," for information about how to use the Vector Contents window to add a new vector or to copy, modify, or delete the contents of an existing vector.

### Vector 1— Information Announcement

The simplest vectors have only one step. Figure B-3 shows a vector that plays an announcement and then disconnects calls.

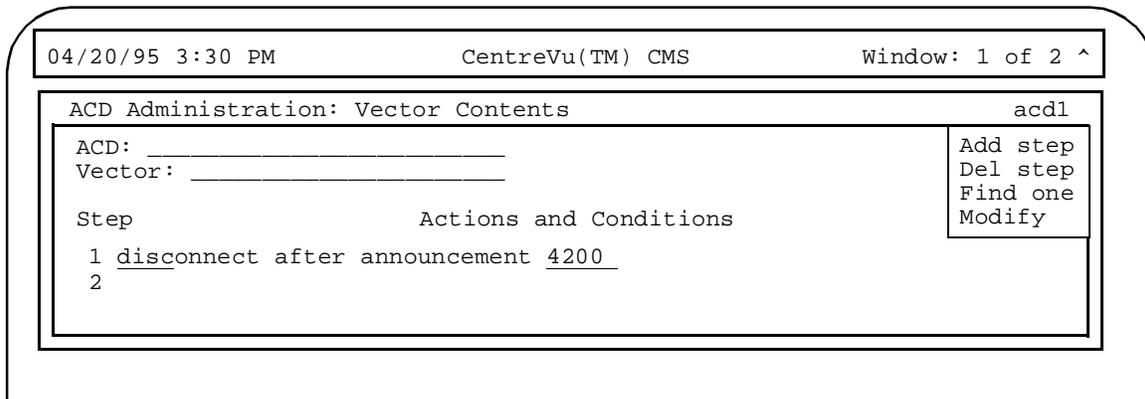


Figure B-3: Vector 1—Information Announcement

# Change Pages — Installation and Maintenance Document

The *CentreVu™ CMS R3V4 Sun® SPARCserver™ Computers Installation and Maintenance, Issue 2* (AT&T 585-215-807) document will be available in April 1996. Please refer to the Issue 2 document if you need information about these changes:

- Chapter 3**
  - Procedure for connecting external SCSI devices was updated to include the QIC 2.5-GB and the UniPack 14-GB tape drives.
  
- Chapter 4**
  - Procedure was added for administering terminals via the Aurora SBus *Multiport\** administration tool.
  - Options were updated for the 3715, 3830, and 3910 modems so they work with the following hardware:
    - SPARCserver A port
    - 8 or 16 port NTS
    - 64 port NTS
    - Aurora ports card.
  
- Chapter 8**
  - Procedures for recovering from a disk corruption or a disk crash were updated to include 2.1-GB disks.
  - Procedure for installing additional memory was updated to include the 2.1-GB disk.
  - Procedure for adding an Aurora SBus *Multiport* card was updated to include the Aurora SBus *Multiport* administration tool.
  
- Appendix D**
  - PEC explosion tables were updated to include the latest *CentreVu* CMS R3V4 hardware and software.
  - Procedure for installing external SCSI devices was updated to include the QIC 2.5-GB and the UniPack 14-GB tape drives.
  - Procedure for connecting external SCSI devices was updated to include the UniPack 14-GB tape drive.
  - Procedure for partitioning the hard disks was updated to include internal 2.1-GB disks.

\* Multiport is a trademark of Aurora Technologies, Inc.

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## Change Pages — Reports Document

The following changes have been made to the *CentreVu* CMS Reports (AT&T 585-215-801) document. Please replace the applicable pages with the included change pages.

---

### Chapter 3 — Historical Reports

- Changes were made to the Historical Reports Cross Reference. Specifically, the name of Table 3-38 has been corrected to read “Historical Split/Skill and VDN Report Items Cross Reference, and the % AUX Time line was removed from the table.

Replace pages 3-139 and 3-140 with the updated pages.

---

### Appendix A — Database Items and Calculations

- A correction was made to the INT\_AUXTIME calculation definition. Replace pages A-133 and A-134 with the updated pages.

Table 4-2:

Table 4-3: Report Heading	Table 4-4: Description	Table 4-5: Database Item, Calculation, or <Calculation Name>
<b>Table 4-6: Split/Skill II</b>	Table 4-7: The number of the answering split or skill associated with the call at its disposition in this segment. Calls that were not queued to a split or skill at the time of disposition will have this item set to -1. Calls that were queued to an unmeasured split or skill at the time of disposition will have this item set to zero.	Table 4-8: DISPSPLIT
<b>Table 4-9: Ans Agent</b>	Table 4-10: The login ID of the agent who answered the call in this segment.	Table 4-11: ANSLOGIN
<b>Table 4-12: Talk Time</b>	Table 4-13: The total talk time for the answering agent in this segment.	Table 4-14: TALKTIME
<b>Table 4-15: Hold Time</b>	Table 4-16: Total time call was put on hold by the answering agent, in seconds, in this segment. Note that in agent-to-agent calls, <b>ANSHOLDTIME</b> is accrued for the answering agent if the agent puts the call on hold, but not for the other agent (who continues to accrue talk time). Hold time is recorded for any type of call for Generic 2.2 and Generic 3 switches. Hold time is recorded only for ACD calls for System 85 and Generic 2.1 switches. Hold time is not recorded for Generic 1 switches.	Table 4-17: ANSHOLDTIME
<b>Table 4-18: After Call</b>	Table 4-19: Time spent, in seconds, in ACW (after call work) related to this call by the answering agent in this segment.	Table 4-20: ACWTIME
<b>Table 4-21: Trs</b>	Table 4-22: Whether or not an answering agent initiated a transfer on this segment (YES or NO). For Generic 2.2 and Generic 3 switches, this is set for any call transferred. For System 85 and Generic 2.1 switches, this is set for transfers to a measured VDN or split. For Generic 1 switches, this is set only if a measured call is transferred to a measured split or from a measured trunk to a measured trunk.	Table 4-23: TRANSFERRED
<b>Table 4-24: Cnf</b>	Table 4-25: Whether or not the answering agent initiated a conference on this segment (YES or NO).	Table 4-26: CONFERENCE
<b>Table 4-27: Ast</b>	Table 4-28: Whether or not the answering agent in this segment requested supervisor assistance on this call (YES or NO).	Table 4-29: ASSIST
<b>Table 4-30: Last Call Work Code</b>	Table 4-31: The last call work code entered by the answering agent in this segment. This database item applies to Generic 2.2 and Generic 3 switches only.	Table 4-32: LASTCWC

# Historical Reports Cross Reference

Tables 3-39 through 3-42 list the historical report items and the reports in which they appear.

**Table 4-33:**

Report Items	Historical Reports in Which They Appear									
	Split/Skill & VDN Status	Split/Skill & VDN Report	Split/Skill & Summary	Split/Skill & VDN Call Profile	Split/Skill & VDN Call Profile Graph	Outbound Split/Skill	Split/Skill & VDN Service Level Graph	Average Speed of Answer Graph	VDN Skill Preference	Multi-ACD Call Flow by VDN
% ACD Calls Answered							X	X		
% ACD Time			X							
% Abandoned						X				
% Answered			X							
% Answered within Service Level	X			X	X		X (VDN)			
ACD Calls	X	X	X							
ACD Calls Answered by Skill									X	
Abandoned Calls	X		X	X	X				X	X
Adjunct Routing										X
(Agent Time) ACD		X								
(Agent Time) ACT		X								
(Agent Time) AUX		X								
(Agent Time) Available		X								
(Agent Time) Ring		X								
(Agent Time) Staff		X								
Answered/Connected				X	X				X	X
Assists		X								
Auto-Paced Average Talk Time						X				
Average After Call		X	X						X	
Average After Call by Skill									X	
Average Hold Time		X								
Average Position Staffed			X							
Average Speed of Answer	X		X	X					X	
Average Talk Time		X	X						X	
Average Talk Time by Skill									X	
Average Time to Abandon	X		X	X					X	
Average Time in VDN									X	
Call Handled/Backup										X
Calls Busy/Disconnect										X
Calls Held		X								
Calls Offered									X	X
Calls Per Position			X							
Dequeued Average Que Time			X							
Dequeued Calls			X							
(Extension Out) Average Talk Time			X							
Extension Out Calls			X							
Flow In			X							
Flow Out			X							
Lookahead Interflow										X

Table 25:

Calculation Name	Calculation	Description
AVG_INB_ACD_TIME_SUM	$(\text{sum}(\text{TOTAL\_ACDTIME}-\text{O\_ACDTIME})) / \text{INBOUND\_ACDCALLS}$	Average inbound ACD time
AVG_INB_ACW_TIME_SUM	$(\text{sum}(\text{TOTAL\_ACWTIME}-\text{O\_ACWTIME})) / \text{INBOUND\_ACDCALLS}$	Average inbound ACW time
AVG_OUTB_ACD_SUM	$\text{sum}(\text{O\_ACDTIME}) / \text{sum}(\text{O\_ACDCALLS})$	Total outbound average ACD talk time
AVG_OUTB_ACD_TIME	$\text{O\_ACDTIME} / \text{O\_ACDCALLS}$	Outbound average ACD talk time
AVG_OUTB_ACW_SUM	$\text{sum}(\text{O\_ACWTIME}) / \text{sum}(\text{O\_ACDCALLS})$	Total outbound average ACW talk time
AVG_OUTB_ACW_TIME	$\text{O\_ACWTIME} / \text{O\_ACDCALLS}$	Outbound average ACW talk time
AVG_POS_STAFF	$\text{I\_STAFFTIME} / (\text{INTRVL} * 60)$	Average positions staffed
AVG_POS_STAFF_SUM	$\text{sum}(\text{I\_STAFFTIME}) / \text{sum}(\text{INTRVL} * 60)$	Average positions staffed total
AVG_TALK_TIME_IN	$(\text{ACWINTIME} + \text{AUXINTIME}) / (\text{ACWINCALLS} + \text{AUXINCALLS})$	Extension in calls average talk time
AVG_TALK_TIME_IN_SUM	$\text{sum}(\text{ACWINTIME} + \text{AUXINTIME}) / \text{sum}(\text{ACWINCALLS} + \text{AUXINCALLS})$	Extension in calls total average talk time
AVG_TALK_TIME_OUT	$(\text{ACWOUTTIME} + \text{AUXOUTTIME}) / (\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$	Extension out calls average talk time
AVG_TALK_TIM_OUT_SUM	$\text{sum}(\text{ACWOUTTIME} + \text{AUXOUTTIME}) / \text{sum}(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$	Extension out calls total average talk time
AVG_TRK_HOLD_IN_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Inbound total average trunk holding time
AVG_TRK_HOLD_OUT_SUM	$\text{sum}(\text{OUTTIME}) / \text{sum}(\text{OUTCALLS})$	Outbound total average trunk holding time
AVG_TRK_HOLD_TIME	$(\text{INTIME} + \text{OUTTIME}) / (\text{INCALLS} + \text{OUTCALLS})$	Average trunk holding time
AVG_TRK_HOLD_TIME_IN	$\text{INTIME} / \text{INCALLS}$	Inbound average trunk holding time
AVG_TRK_HOLD_TIM_OUT	$\text{OUTTIME} / \text{OUTCALLS}$	Outbound average trunk holding time
AVG_VDN_TIME	$(\text{INTIME} / \text{INCALLS})$	Average VDN time
AVG_VDN_TIME_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Average time in VDN total
AVG_VEC_TIME	$\text{INTIME} / \text{INCALLS}$	Average vector time
AVG_VEC_TIME_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Average vector time total
BUSY_DISCONNECT	$(\text{BUSYCALLS} + \text{DISCCALLS})$	Number of calls that were busy and disconnected
CALLS_PER_POS	$(60 * \text{INTRVL} * \text{ACDCALLS}) / \text{I\_STAFFTIME}$	Calls per position

Table 25:

Calculation Name	Calculation	Description
CALLS_PER_POS_SUM	$(\text{sum}(60 * \text{INTRVL}) * \text{sum}(\text{ACDCALLS})) / \text{sum}(\text{I\_STAFFTIME})$	Calls per position total
EXT_CALL_IN	$(\text{ACWINCALLS} + \text{AUXINCALLS})$	Incoming extension calls
EXT_CALL_OUT	$(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$	Outgoing extension calls
EXT_IN_TIME	$(\text{I\_ACWINTIME} + \text{I\_AUXINTIME})$	Time on incoming extension calls
EXT_OUT_TIME	$(\text{I\_ACWOUTTIME} + \text{I\_AUXOUTTIME})$	Time on outgoing extension calls
INBOUND_ACDCALLS	$(\text{sum}(\text{TOTAL\_ACDCALLS} - \text{O\_ACDCALLS}))$	Total inbound ACD calls
INT_AUXTIME	$\text{I\_STAFFTIME} - \text{I\_AVAILTIME} - \text{I\_ACD\_TIME} - \text{I\_ACW\_TIME} - \text{I\_OTHER\_TIME} - \text{I\_RING\_TIME} - \text{I\_DA\_ACD\_TIME} - \text{I\_DA\_ACW\_TIME}$	Total AUX time
PERCENT_ACD_TIME	$100 * ((\text{I\_ACD\_TIME} + \text{I\_ACW\_TIME}) / \text{I\_STAFFTIME})$	Percent ACD time
PERCENT_ACD_TIME_SUM	$100 * (\text{sum}(\text{I\_ACD\_TIME} + \text{I\_ACW\_TIME}) / \text{sum}(\text{I\_STAFFTIME}))$	Percent ACD time total
PERCENT_ALL_BUSY	$100 * (\text{ALLINUSETIME} / \text{SECS\_PER\_DAY})$	Percentage of time all trunks in use
PERCENT_ALL_BUSY_D	$100 * (\text{ALLINUSETIME} / \text{d\_secs.SECSPERDAY})$	Percentage of time all trunks in use in the day
PERCENT_ALL_BUSY_M	$100 * (\text{ALLINUSETIME} / \text{m\_secs.SECSPERMN})$	Percentage of time all trunks in use in the month
PERCENT_ALL_BUSY_W	$100 * (\text{ALLINUSETIME} / \text{w\_secs.SECSPERWK})$	Percentage of time all trunks in use in the week
PERCENT_ALL_BUSY_SUM	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{SECS\_PER\_DAY}))$	Percentage of time all trunks in use
PERCENT_AL_BSY_SUM_D	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{d\_secs.SECSPERDAY}))$	Percentage of time all trunks in use in the day
PERCENT_AL_BSY_SUM_M	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{m\_secs.SECSPERMN}))$	Percentage of time all trunks in use in the month
PERCENT_AL_BSY_SUM_W	$100 * (\text{sum}(\text{ALLINUSETIME}) / \text{sum}(\text{w\_secs.SECSPERWK}))$	Percentage of time all trunks in use in the week

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## Change Pages — Custom Reports Document

The following changes have been made to the *CentreVu* CMS Custom Reports (AT&T 585-215-801) document. Please replace the applicable pages with the included change pages.

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### Appendix A — Database Items and Calculations

- A correction was made to the INT\_AUXTIME calculation definition.  
Replace pages A-133 and A-134 with the updated pages.

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Table 26:

Calculation Name	Calculation	Description
AVG_INB_ACD_TIME_SUM	$(\text{sum}(\text{TOTAL\_ACDTIME}-\text{O\_ACDTIME})) / \text{INBOUND\_ACDCALLS}$	Average inbound ACD time
AVG_INB_ACW_TIME_SUM	$(\text{sum}(\text{TOTAL\_ACWTIME}-\text{O\_ACWTIME})) / \text{INBOUND\_ACDCALLS}$	Average inbound ACW time
AVG_OUTB_ACD_SUM	$\text{sum}(\text{O\_ACDTIME}) / \text{sum}(\text{O\_ACDCALLS})$	Total outbound average ACD talk time
AVG_OUTB_ACD_TIME	$\text{O\_ACDTIME} / \text{O\_ACDCALLS}$	Outbound average ACD talk time
AVG_OUTB_ACW_SUM	$\text{sum}(\text{O\_ACWTIME}) / \text{sum}(\text{O\_ACDCALLS})$	Total outbound average ACW talk time
AVG_OUTB_ACW_TIME	$\text{O\_ACWTIME} / \text{O\_ACDCALLS}$	Outbound average ACW talk time
AVG_POS_STAFF	$\text{I\_STAFFTIME} / (\text{INTRVL} * 60)$	Average positions staffed
AVG_POS_STAFF_SUM	$\text{sum}(\text{I\_STAFFTIME}) / \text{sum}(\text{INTRVL} * 60)$	Average positions staffed total
AVG_TALK_TIME_IN	$(\text{ACWINTIME} + \text{AUXINTIME}) / (\text{ACWINCALLS} + \text{AUXINCALLS})$	Extension in calls average talk time
AVG_TALK_TIME_IN_SUM	$\text{sum}(\text{ACWINTIME} + \text{AUXINTIME}) / \text{sum}(\text{ACWINCALLS} + \text{AUXINCALLS})$	Extension in calls total average talk time
AVG_TALK_TIME_OUT	$(\text{ACWOUTTIME} + \text{AUXOUTTIME}) / (\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$	Extension out calls average talk time
AVG_TALK_TIM_OUT_SUM	$\text{sum}(\text{ACWOUTTIME} + \text{AUXOUTTIME}) / \text{sum}(\text{ACWOUTCALLS} + \text{AUXOUTCALLS})$	Extension out calls total average talk time
AVG_TRK_HOLD_IN_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Inbound total average trunk holding time
AVG_TRK_HOLD_OUT_SUM	$\text{sum}(\text{OUTTIME}) / \text{sum}(\text{OUTCALLS})$	Outbound total average trunk holding time
AVG_TRK_HOLD_TIME	$(\text{INTIME} + \text{OUTTIME}) / (\text{INCALLS} + \text{OUTCALLS})$	Average trunk holding time
AVG_TRK_HOLD_TIME_IN	$\text{INTIME} / \text{INCALLS}$	Inbound average trunk holding time
AVG_TRK_HOLD_TIM_OUT	$\text{OUTTIME} / \text{OUTCALLS}$	Outbound average trunk holding time
AVG_VDN_TIME	$(\text{INTIME} / \text{INCALLS})$	Average VDN time
AVG_VDN_TIME_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Average time in VDN total
AVG_VEC_TIME	$\text{INTIME} / \text{INCALLS}$	Average vector time
AVG_VEC_TIME_SUM	$\text{sum}(\text{INTIME}) / \text{sum}(\text{INCALLS})$	Average vector time total
BUSY_DISCONNECT	$(\text{BUSYCALLS} + \text{DISCCALLS})$	Number of calls that were busy and disconnected

Table 26:

Calculation Name	Calculation	Description
CALLS_PER_POS	$(60 * INTRVL * ACDCALLS) / I\_STAFFTIME$	Calls per position
CALLS_PER_POS_SUM	$(\text{sum}(60 * INTRVL) * \text{sum}(ACDCALLS)) / \text{sum}(I\_STAFFTIME)$	Calls per position total
EXT_CALL_IN	$(ACWINCALLS + AUXINCALLS)$	Incoming extension calls
EXT_CALL_OUT	$(ACWOUTCALLS + AUXOUTCALLS)$	Outgoing extension calls
EXT_IN_TIME	$(I\_ACWINTIME + I\_AUXINTIME)$	Time on incoming extension calls
EXT_OUT_TIME	$(I\_ACWOUTTIME + I\_AUXOUTTIME)$	Time on outgoing extension calls
INBOUND_ACDCALLS	$(\text{sum}(TOTAL\_ACDCALLS - O\_ACDCALLS))$	Total inbound ACD calls
INT_AUXTIME	$I\_STAFFTIME - I\_AVAILTIME - I\_ACD\_TIME - I\_ACW\_TIME - I\_OTHER\_TIME - I\_RING\_TIME - I\_DA\_ACD\_TIME - I\_DA\_ACW\_TIME$	Total AUX time
PERCENT_ACD_TIME	$100 * ((I\_ACD\_TIME + I\_ACW\_TIME) / I\_STAFFTIME)$	Percent ACD time
PERCENT_ACD_TIME_SUM	$100 * (\text{sum}(I\_ACD\_TIME + I\_ACW\_TIME) / \text{sum}(I\_STAFFTIME))$	Percent ACD time total
PERCENT_ALL_BUSY	$100 * (ALLINUSETIME / SECS\_PER\_DAY)$	Percentage of time all trunks in use
PERCENT_ALL_BUSY_D	$100 * (ALLINUSETIME / d\_secs.SECSPERDAY)$	Percentage of time all trunks in use in the day
PERCENT_ALL_BUSY_M	$100 * (ALLINUSETIME / m\_secs.SECSPERMN)$	Percentage of time all trunks in use in the month
PERCENT_ALL_BUSY_W	$100 * (ALLINUSETIME / w\_secs.SECSPERWK)$	Percentage of time all trunks in use in the week
PERCENT_ALL_BUSY_SUM	$100 * (\text{sum}(ALLINUSETIME) / \text{sum}(SECS\_PER\_DAY))$	Percentage of time all trunks in use
PERCENT_AL_BSY_SUM_D	$100 * (\text{sum}(ALLINUSETIME) / \text{sum}(d\_secs.SECSPERDAY))$	Percentage of time all trunks in use in the day
PERCENT_AL_BSY_SUM_M	$100 * (\text{sum}(ALLINUSETIME) / \text{sum}(m\_secs.SECSPERMN))$	Percentage of time all trunks in use in the month
PERCENT_AL_BSY_SUM_W	$100 * (\text{sum}(ALLINUSETIME) / \text{sum}(w\_secs.SECSPERWK))$	Percentage of time all trunks in use in the week