297-2671-150

Call Center Management Information System

CC MIS System Description

Release 6.0.1 Standard 1.0 May 2007

NORTEL

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This product is intended for deployment in a light industrial, non-domestic environment and complies with the relevant EMC standards, EN55022 (class A) and EN50082-1. Since this is class A equipment, in a domestic environment this equipment may cause radio interference in which case the user may be required to take adequate measures.

Revision history

May 2007	Standard 1.0 for Release 6.0.1
June 2005	Standard 1.0 for Release 6.0.
July 2002	Standard version for Release 5.2.

Contents

Chapter 1

How to get help

This section explains how to get help for Nortel products and services.

Getting help from the Nortel Web site

The best way to get technical support for Nortel products is from the Nortel Technical Support Web site:

www.nortel.com/support

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products. From this site, you can:

- download software and related tools
- download technical documents, release notes, and product bulletins
- sign up for automatic notification of new software and documentation
- search the Technical Support Web site and the Nortel Knowledge Base for answers to technical issues
- open and manage technical support cases

Getting help over the phone from a Nortel Solutions Center

If you do not find the information you require on the Nortel Technical Support Web site, and you have a Nortel support contract, you can also get help over the phone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7835).

Outside North America, go to the following Web site to obtain the phone number for your region:

www.nortel.com/callus

Getting help from a specialist by using an Express Routing Code

You can use an Express Routing Code (ERC) to more quickly route your call to the appropriate support specialist. To locate the ERC for your product or service, go to:

www.nortel.com/erc

Getting help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.

Chapter 2

About this document

In this chapter

Subject

This Nortel Technical Publication (NTP) provides a high-level overview of the Call Center Management Information System (CC MIS) as it is used with the Meridian SL-100 (MSL-100) and DMS-100 switch. In this document, the term DMS-ACD refers to the following switch types:

- MSL-100
- DMS-100

Applicable systems

This NTP applies to CC MIS Release 6.0.1 systems linked to an MSL-100 (Meridian 1 Options 111-211), DMS-500, or DMS-100 supporting the Batch Change Supplement (BCS) 35 and 43 protocol versions.

The Automatic Call Distribution Management Information System (ACD-MIS) Interface Specification version that corresponds to each BCS version is as follows:

- BCS 35 = Version 9
- BCS 43 = Version 11

Nortel recommends using BCS 43, if available, on your switch.

Intended audience

This NTP is intended for individuals who are interested in the features and capabilities of the Call Center MIS application.

How to use this guide

This NTP provides descriptive information about CC MIS. It contains the following information:

- Chapter 2: "About this document"—Provides an overview of this book and lists the documentation related to the product.

- Chapter 3: "System components and capacities"—Introduces the product. A complete listing of system capacities is also included in this chapter.
- Chapter 4: "Functions and features"—Describes the functions and the software features of the product.
- Appendix A: "Example reports"—Contains an example of each standard report format and agent event report.
- Appendix B: "Supported data streams"—Contains a complete listing of supported messages.

Related information

This section explains where to find additional information about CC MIS and Automatic Call Distribution (ACD).

NTPs

Where appropriate, references to documents specific to a particular component are listed in the description sections.

For more information about CC MIS, see the following NTPs:

- *CC MIS Getting Started Guide* (297-2671-175)
- *CC MIS Release Notes* (297-2671-211)
- *CC MIS Installation and Maintenance* (297-2671-545)

For more information about ACD, see the following NTPs:

- *ACD Product Guide* (297-2041-010)
- *ACD Server Product Guide* (297-2041-011)
- *ACD Planning and Engineering Guide* (297-2041-101)
- *ACD Planning and Engineering Guide - Canada* (297-2041-104)
- *ACD Administration Guide* (297-2041-301)
- *ACD Translations Guide* (297-2041-350)
- *ACD Maintenance Guild* (297-2041-500)

- *ACD Trouble Locating and Clearing Procedures* (297-2041-503)
- *M5212 ACD Set General Description* (297-2041-900)
- *ACD End-User Load Management* (297-2041-901)
- *Network ACD General Description (up to BCS 34)* (555-8101-100)

Online

To access Nortel documentation online, click the Technical Documentation link under Support on the Nortel home page:

www.nortel.com/documentation

CD-ROM

To obtain Nortel documentation on CD-ROM, contact your Nortel customer representative.

Chapter 3

System components and capacities

In this chapter

Concepts

Introduction to ACD

With Automatic Call Distribution (ACD), a relatively small number of operators (called agents) can efficiently handle a large number of incoming calls. The ACD feature resides on the Digital Multiplex Switch (DMS)-ACD switch that receives incoming calls. The ACD feature accepts and equitably routes calls to available agents.

Introduction to CC MIS

Call Center Management Information System (CC MIS) is a tool for managing the agents who handle ACD calls. CC MIS helps supervisors plan, manage, and monitor their ACD operation by collecting statistics on the performance of network configuration and personnel.

CC MIS reports these statistics to supervisors in one of the following three ways:

- a numeric or graphic, real-time online display
- a series of standard management reports
- custom management reports

CC MIS provides a variety of optional features, all of which may not be available on your system. Check with your local sales representative to learn about the features available to you.

Figure 1 on page 17 illustrates a potential basic system configuration for CC MIS Release 6.0.

Figure 1: Overview of basic (stand-alone) CC MIS

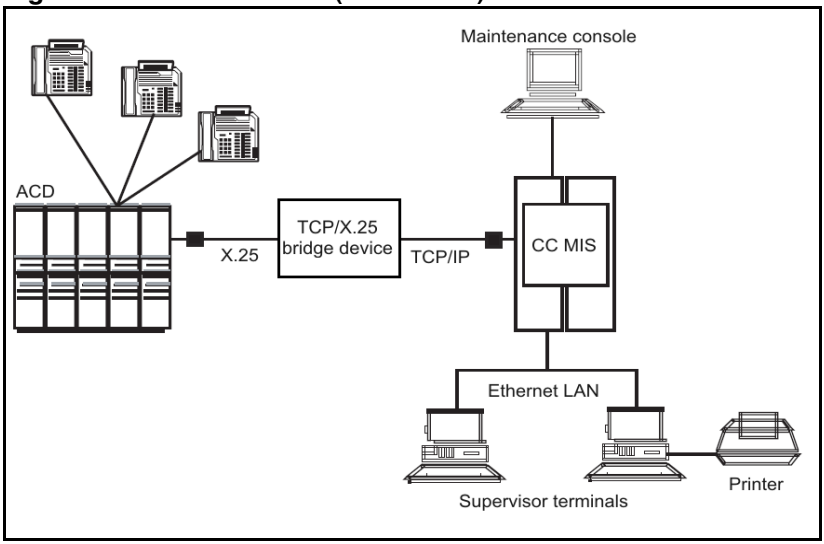


Figure 2 on page 18 illustrates a potential Service Bureau configuration for CC MIS Release 6.0. Service Bureau enables a service provider (for example, a telecommunications company) to install and maintain a CC MIS system and to create partitions on the system that serve individual customers of the telecommunications company. Each partition represents the portion of the ACD that belongs to the customer.

Note: A pool is the collection of all groups and positions that are associated with a specific switch link. Subpools are a further division of these resources within the pool that can be used to partition the ACD resources to each of the end customers.

Figure 2: Overview of Service Bureau

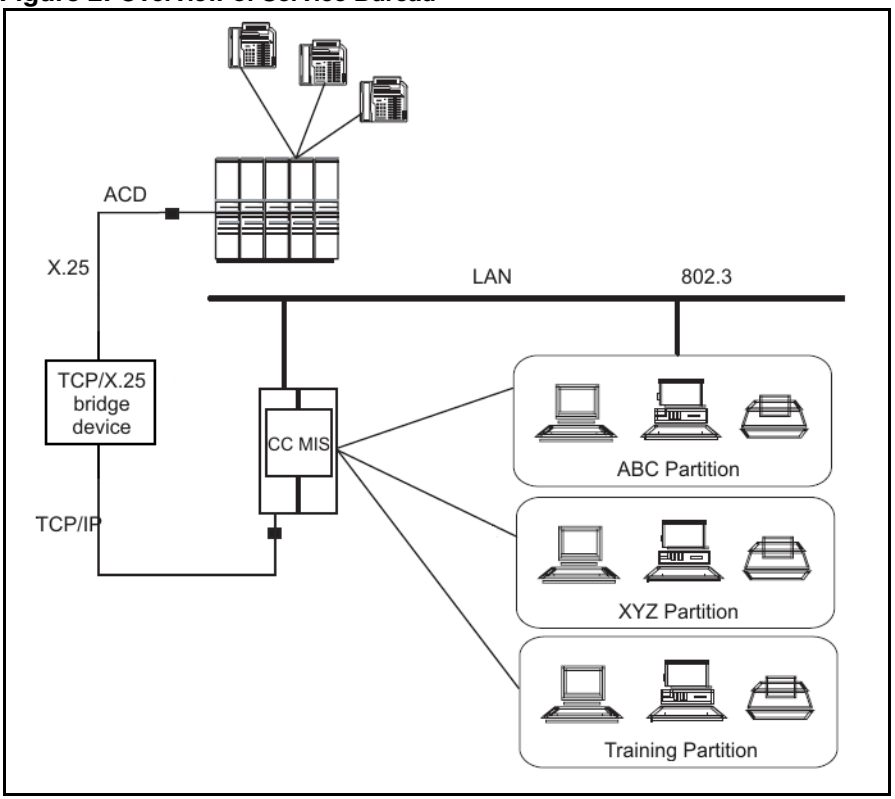
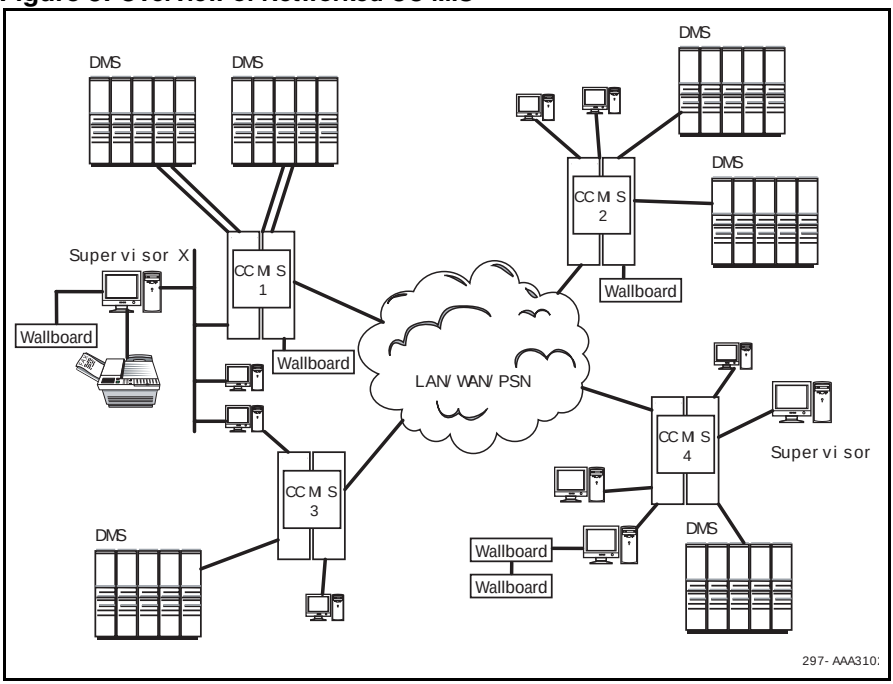


Figure 3 on page 19 illustrates a potential network configuration for CC MIS Release 6.0, with which you can view partitions on other CC MIS nodes within a defined network using Network Access Partitions (NAP). A NAP is a partition that provides access to other partitions in the network. Use NAPs to access local partitions in a CC MIS network. NAPs can exist only on a network node.

Figure 3: Overview of Networked CC MIS



The following sections provide information about each CC MIS component, as well as information about the DMS-ACD as it pertains to the CC MIS.

ACD provisioning

For the CC MIS system to operate properly with the ACD switch, the ACD switch must have the packages listed in Table 1.

Table 1: ACD packages required for CC MIS (Part 1 of 2)

Package number (See Note 1)	Description
NTX000AA	Bilge
NTX001AA	Common Basic
NTX901AA	Local Feature I
NTX100AA	IBN Basic
NTX106AA	IBN-P Business Set
NTX108AA	IBN Display Feature
NTX273AA	Multi-Protocol Controller BX.25
NTXE65AA	MPC X.25 Interface (See Note 2)
NTXE98AA	High Speed MPC (See Note 3)
NTX560AB	Network Operations Protocol - Generic RO Service
NTX407AB	ACD Call Processing (See Note 4)
NTX415AA	ACD Basic (See Note 4)

Table 1: ACD packages required for CC MIS (Part 2 of 2)

Package number (See Note 1)	Description
NTX416AJ	ACD Enhanced (See Note 4)
NTX991AF	ACD Mgmt Rep 2-way datastream
NTXA52AB	ACD Remote Load Mgmt

Note 1: The alphabetic suffixes (for example, AA, AB, AC) can increment on an individual package in any switch release. Use the alphabetic suffix for the most current generally available package associated with the switch load.

Note 2: This package is required if you use the link redundancy option or if the link speed is greater than 19 200 baud. Optionally, you can use package NTXN85AA (CCITT 1984 X.25) instead of NTXE65AA, without benefit or impact to CC MIS. CCITT is the International Telegraph and Telephone Consultive Committee.

Note 3: This package is required if the link speed is greater that 19 200 baud or if the switch load is pre-BCS 35 and Enhanced Multi-Protocol Controller hardware is used.

Note 4: This package is not required for CC MIS but can be required for certain ACD features that you purchased. For details about package requirements for ACD features, see the appropriate ACD NTPs.

Switch links

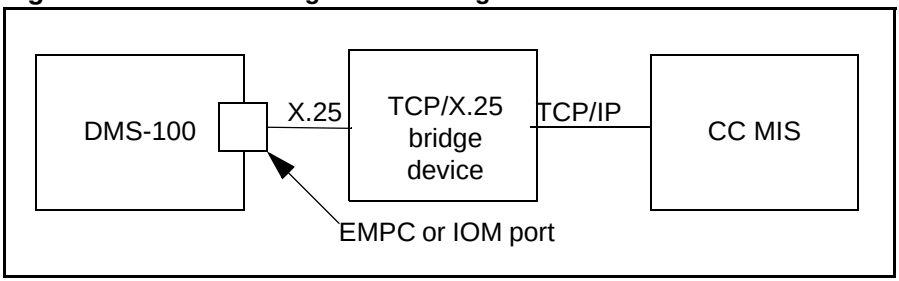
CC MIS supports up to 12 switch links, each of which can be defined as either a single (nonredundant) link or a redundant link (if you purchase the redundant link option). You can define these switch links to connect to any DMS-ACD switch in the customer's network, including multiple connections to the same switch, if desired.

Each switch link maps to only one ACD pool on the target switch, regardless of the switch to which the link connects. In addition, you can associate each ACD pool with only a single switch link at any time.

Physical link

The physical link between the CC MIS and the DMS-ACD consists of a Transmission Control Protocol/Internet Protocol (TCP/IP) connection to a TCP/X.25 bridge device, and an X.25 connection from the TCP/X.25 bridge device to the DMS-ACD, as shown in Figure 4.

Figure 4: Switch link using a TCP/IP bridge device



The Nortel Advanced Remote Node (ARN) is the legacy Nortel solution used to provide the TCP/X.25 bridge. However, as of June 30, 2007, you can no longer order the ARN, along with the associated hardware and cables, as part of a CC MIS solution. For more information, see the *Product*

Advisory Bulletin Announcing the Call Center Management Information System (CC MIS) Replacement Options for the Advanced Remote Node (ARN) Router (PAA-2007-0045-Global). You can access this bulletin from the Nortel Partner Information Web site (www.nortel.com/pic).

Nortel has tested the following original equipment manufacturer (OEM) solutions for use as a TCP/X25 bridge device:

- Athena Access from Develcon (www.develcon.com)
- FarLinx TCP-X25 Gateway from FarSite Communications (www.farsite.co.uk)

For more information about TCP/X.25 bridge devices, see *CC MIS Installation and Maintenance* (297-2671-545).

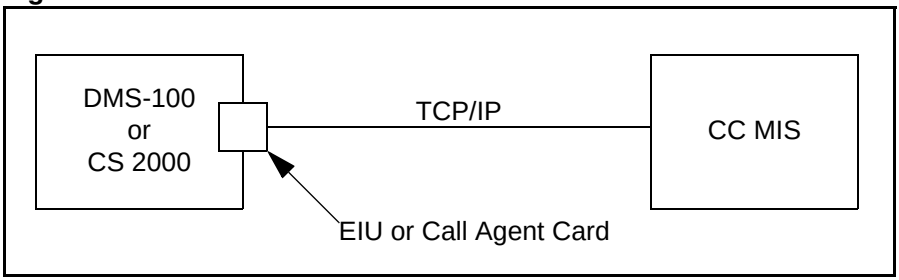
Alternatively, if the target switch supports a direct TCP/IP connection, no TCP/X.25 bridge device is required and CC MIS can connect directly to the switch as shown in Figure 5 on page 24.

On the switch side of the X.25 connection, an Enhanced Multi-Protocol Controller (EMPC) card (1X89BA or 1X89BB) or IOM port provides the physical connection to the switch. Clocking for the X.25 link can range from 9.6 kilobytes per second (Kb/s) to 56 Kb/s (512 Kb/s with IOM) and can use an RS-232 or V.35 interface. The interface type used is transparent to CC MIS. If the DMS-ACD switch and the TCP/X.25 bridge device are more than 100 cable-feet apart, synchronous modems are required between the DMS-ACD switch and the TCP/X.25 bridge device.

Note: Although you can no longer purchase the 1X89AA (MPC) card, support is available. Links that use this card are limited to a maximum of 19.2 Kb/s.

For the direct TCP/IP connection to the switch, the physical connection at the switch uses an Ethernet Interface Unit (EIU) port; or, in the case of the Communication Server 2000 series (CS 2000 series) Compact switch, the connection uses a Call Agent Card.

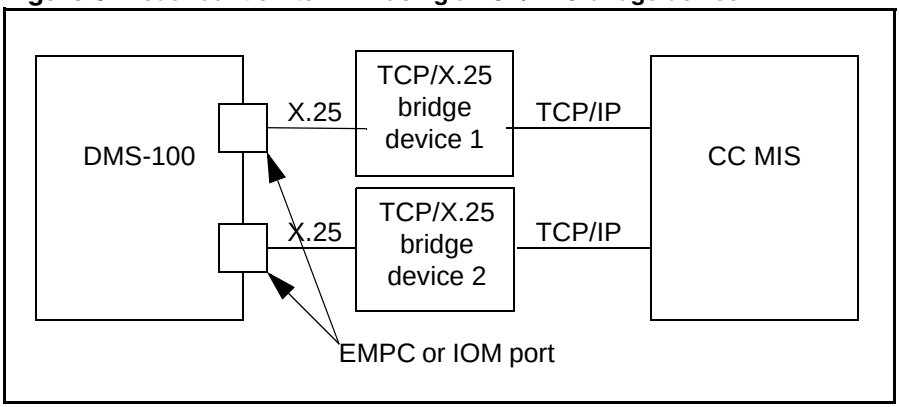
Figure 5: Direct TCP/IP switch link



Redundant link option

With the redundant link option, you can define a backup (redundant) link for each active link. Figure 6 shows a redundant switch link using a TCP/X.25 bridge device.

Figure 6: Redundant switch link using a TCP/X.25 bridge device



If the link fails between the CC MIS and DMS-ACD, data loss occurs. A redundant link reduces the amount of data lost, but does not prevent data loss entirely. Data loss occurs during the time it takes CC MIS to recognize the link failure and to establish a new connection using the alternate link (this can take up to 2 minutes). When a link fails, CC MIS retries the connection, alternating between the two possible IP addresses (TCP/X.25 bridge devices) associated with the switch link.

A switchover to an alternate link occurs in the following situations:

- A connection request made by CC MIS to the DMS-ACD times out.
- A connection request made by CC MIS to the DMS-ACD is refused.
- An established connection to the DMS-ACD is lost.

If the redundant link is operational and the communication path is open between the DMS-ACD and CC MIS, it can take up to 2 minutes for a link switchover to complete. The amount of time depends on the following factors:

- the time CC MIS takes to recognize the connection loss to the switch
- the time the DMS-ACD takes to recognize the loss of connection with CC MIS and to release the ACD pool associated with the connection
- the time CC MIS takes to reconnect to the switch and log on again

Link failures

The failure of any link to the switch generates a log message in the CC MIS system log and another log message in the DMS-ACD log. When the connection between the CC MIS and the DMS-ACD is lost, the following events occur:

- The connection status icon on the Windows-based supervisor screen indicates a link failure to the switch.
- CC MIS attempts to reestablish the link. During this time
  - Supervisors remain logged on, but no agent or call state transitions occur.
  - No historical or real-time data is accumulated.
- If the connection to the switch is restored within 5 minutes
  - Link indicators are reset to indicate the links are up.
  - CC MIS receives current event data from the switch.
  - All event data generated during the link outage is lost.
- If the connection is not restored within 5 minutes, the system performs an automatic configuration update after the link is restored.

Logical link

At the logical level, each CC MIS switch link can represent an ACD pool on the target switch. Within that ACD pool, use subpools to partition the ACD resources among multiple customer partitions defined on the CC MIS.

To establish a connection to the switch at the logical level, CC MIS must know and associate the following information (configured in various tables within the DMS-ACD) and associated with the switch link definition stored in the CC MIS configuration database:

- Network Operation Services (NOS) logon parameters
- ACD pool name and password (defined in table ACDMISPL)
- ACD subpool names and passwords (defined in table ACDMISSP)

You cannot add, change, or delete information in these ACD tables through CC MIS. The NOS logon and ACD pool information must match the information in the DMS-ACD tables to establish a connection to the DMS-ACD.

Data stream support

CC MIS supports the ACD MIS data stream defined by the Q.209 protocol specification. Through a protocol version setting in the ACDMISPL table on the switch, various versions of this protocol can be provided to the CC MIS system. The CC MIS system supports protocol versions BCS 35 and BCS 43. Although the CC MIS protocol handler can accept any message received from the switch for either of these protocol versions, CC MIS does not actually use all of these messages. For a complete list of supported messages, see Appendix B, “Supported data streams,” on page 187.

Note: Nortel recommends that you use the highest supported protocol version whenever possible.

CC MIS server

CC MIS Release 6.0 ports the CC MIS software to the Linux operating system. In Release 6.0, CC MIS is a software solution that operates on hardware that is supplied (and maintained) by the customer. This is also known as platform vendor independent (PVI) hardware.

CC MIS Release 6.0.1 introduces support for Red Hat Enterprise Linux Version 4.

The CC MIS server must run the Red Hat Enterprise Linux Version 3 or Version 4 operating system on a system with an Intel Pentium or Intel Xeon processor. At this time, only the English version of the operating system is supported.

Nortel ensures that the CC MIS application is compatible with the latest Red Hat Enterprise Linux operating-system updates.

For detailed CC MIS server requirements, see *CC MIS Installation and Maintenance* (297-2671-545).

Note: CC MIS Release 6.0 does not support the Motorola 88K/SVR4 platform or the Motorola PowerPC/AIX platform.

The CC MIS server contains the CPU, the operating system, the hard disk, the CD-ROM drive. The CC MIS server communicates with the DMS-ACD.

Uninterruptible power supply

Nortel recommends the use of an uninterruptible power supply (UPS) to prevent power failure to the server if a sudden power loss occurs. The selected UPS must interact with the Linux operating system to perform an orderly system shutdown.

The UPS must provide approximately 10 minutes of power to the server after the normal power supply fails, after which the UPS interacts with the operating system to perform a controlled system shutdown. The CC MIS application shuts down gracefully as part of a normal operating-system shutdown. The UPS lessens the possibility of database problems due to power failure.

For detailed UPS requirements, see *CC MIS Installation and Maintenance* (297-2671-545).

Optical Drive

The CC MIS server requires an optical drive to load operating-system (Red Hat Enterprise Linux) and application (CC MIS) software. Nortel recommends that you install a DVD-ROM drive on the CC MIS server.

Tape drives

Release 6.0 does not support the use of tape drives for software installation or backups. Backups are stored on a user-specified file system.

Hard disk

CC MIS stores historical data on the server hard disk. The disk size must be a minimum of 36 GB. The required size of the drive is based on customer configuration and database requirements, such as the number of agents, the number of ACD groups, and the desired storage retention for historical data. Additional space (approximately 6 GB) is required for the Linux operating system.

RAID

Nortel recommends the use of a server that supports a hardware Redundant Array of Independent Disks (RAID) capability. Software RAID is not supported.

RAID provides the following benefits:

- maintains redundant data across the physical disks in the RAID array, such that system operation is not interrupted by the failure of any one disk
- protects the operating system, application software, and databases
- automatically repairs the array when a failed disk is replaced with a new disk, using data stored on the other disks in the array

Note: RAID does not eliminate the possibility of database integrity problems that can occur due to a power failure while a database is actively updated. If a database integrity problem does occur, restore the database from the most recent backup.

Maintenance interface

Engineers maintain CC MIS through the Maintenance interface. Using this interface, engineers can perform the following functions:

- perform diagnostics
- adjust CC MIS configuration and logon parameters to the switch
- add and delete partitions
- view and print logs
- perform routine backup, restore, and software upgrade functions for the CC MIS system
- establish and modify CC MIS network parameters

Engineers perform these CC MIS configuration and maintenance functions by logging on to the CC MIS server (Linux) using the ccmis user ID. You can log on at either the physical console associated with the server (consisting of a monitor, a keyboard, and a mouse) or through dial-up or Telnet access to the server. The Maintenance interface is completely text-based for easy remote access.

For more information about the Maintenance interface, see *CC MIS Installation and Maintenance* (297-2671-545).

Supervisor terminals

Supervisors manage their agents through menus accessed at a supervisor terminal. The terminal is a personal computer (PC) that runs Windows 2000 Professional or Windows XP Professional and has the CC MIS client software installed. CC MIS online Help contains procedures to assist supervisors in using CC MIS.

Connection to the CC MIS server

Supervisor terminals can connect to the server through either of the following methods:

- direct local area network (LAN) connection from the client to the server
- serial connection to a terminal server port configured in the CC MIS application as a supervisor terminal

  If you use a terminal server for the connection, the supervisor terminal can connect to the terminal server port through either a direct serial connection or by using dial-up modems. All serial port configuration, such as baud rate and modem control settings, is configured on the terminal server. You must configure the serial port as 8N1 (8 bits, no parity, 1 stop bit).

Printers

Any printing performed using the Maintenance interface is directed to the Linux system default printer (if a system default printer is defined). Configuration reports, however, can be sent to the system default printer or to any report destination defined in any configured partition.

Note: Set up the system default printer using Linux printer configuration utilities.

For the Supervisor interface, reports can be sent to any printer configured in the Windows operating system on which the Supervisor interface is running. To use a Windows printer in CC MIS, you must first configure the Windows printer in CC MIS using the Client Services Setup screen in the Supervisor interface. For details, see *CC MIS Installation and Maintenance* (297-2671-545).

After the Windows printer is configured in CC MIS, any supervisor within the CC MIS partition can send reports to the printer, provided the Supervisor interface client is running on the supervisor PC.

Wallboards

Supervisors can display information on wallboards. A wallboard is a message board, mounted in the ACD group office. The CC MIS application supports a variety of monochrome or multicolor LED wallboards.

Wallboards are usually mounted on the wall of a call center office where the call center agents can easily view them. Supervisors use the wallboard to notify agents about current ACD group statistics and to provide administrative information. While a message is displayed, any real-time values imbedded in the message are recomputed and redisplayed every 2 seconds.

CC MIS supports the following wallboard types:

- Spectrum (including multiline and multicolor models)
- Daktronics (single-line, monochrome)
- Generic

CC MIS supports up to 64 wallboard chains. A wallboard chain is a set of up to five uniquely addressable wallboards daisy-chained and attached to the system using a single connection point.

Spectrum wallboards can connect to the system using serial ports on either terminal servers or supervisor terminals. CC MIS can also use IP-connected wallboards, available from Spectrum. Daktronics and Generic wallboards can connect to the system only through a serial port on a terminal server. Generic wallboards cannot be daisy-chained because no concept of an address is associated with a generic wallboard.

CC MIS supports multiline text, multicolor characters, and variables within the message text. Only Spectrum wallboards support the multiline text and multicolor character capabilities.

Quick Messages can be sent from the Wallboard Message Definition window or the Wallboard Run Table window. Quick Messages are defined and instantly sent from the same window.

Purchasable options

In addition to the baseline product, you can purchase the following software options:

- Multiple Partitions
- Multiple Data Links
- Multilingual Supervisor interface
  (English, Canadian French, and Latin-American Spanish)
- Link Redundancy
- Terminal Capacity
- Networking
- Simple Network Management Protocol (SNMP)

System capacities

This section summarizes all system limits within the CC MIS system. Table 2 summarizes the system limits for a CC MIS node, and Table 3 on page 38 describes partition limits.

Table 2: CC MIS system node limits (Part 1 of 3)

Entity	Linux server limits
Supervisor terminals	2000 (2GB or more of memory is required on the server if more than 1000 terminals are used.)
Printers attached directly to CC MIS	1
Printers attached to supervisor terminals	1 for each PC
Wallboard chains	64
Wallboards on each wallboard chain	5 Wallboards connected to a single port can be individually addressed or programmed with a common address. If they are individually addressed, each wallboard must be datafilled in the CC MIS configuration and can then display a unique message.
ACD groups	1024
ACD groups (Networked)	3000

Table 2: CC MIS system node limits (Part 2 of 3)

Entity	Linux server limits
ACD-DNs	17 x maximum ACD groups (1024 possible ACD Groups x 17 ACD-DNs for each ACD Group) CC MIS supports up to 64 ACD-DNs for each ACD group; however, the total ACD-DNs cannot exceed the specified number.
ACD-DNs (Networked)	32767
ACD subgroups (supervisors)	9999 The actual maximum allowed on the system is determined by the license keycode.
ACD subgroups (Networked)	30 000
Agent positions	9999 The actual maximum allowed on the system is determined by the license keycode.
Agent positions (Networked)	30 000
System partitions	64 with each NAP consuming 4 regular partitions
Switch links	12 ■ Controlled by license keycode ■ Each link can be configured as nonredundant or redundant if the redundant link option is purchased

Table 2: CC MIS system node limits (Part 3 of 3)

Entity	Linux server limits
Switch links (Networked)	240 (12 links x 20 nodes)
Network nodes	20
Virtual nodes for NAP	100

Table 3: CC MIS system partition limits (Part 1 of 4)

Entity	Limit
ACD group definitions (3000 on a NAP)	1024 Although each partition can define the maximum number of groups, only the system limit can be active across the CC MIS node at any given time.
ACD-DN definitions (51 000 on a NAP)	17 408 Although each partition can define the maximum number of DNs, only the system limit can be active across the CC MIS node at any given time.
Agent IDs	9999
Line-of-business codes	1000
Walkaway codes	1000
MIS supervisor login IDs	2048
Privilege Level Definitions	256

Table 3: CC MIS system partition limits (Part 2 of 4)

Entity	Limit
Scope Definitions	256
ACD Groups in Scope Definition	256
Subgroups in Scope Definition	256
Change orders	100
List Types	7
Lists of each list type	500
Elements for each list	100
Schedule definitions	200
Scheduled reports for each schedule definition	100
Scheduled change orders for each schedule definition	100
Custom formulas per statistics group for each partition	250 The number of custom formulas for real-time statistics is 100. CC MIS currently supports seven statistics groups, including the real-time statistics group.
Public display quadrant definitions (graphic or tabular)	250
Personal display quadrant definitions (graphic or tabular) for each supervisor	5

Table 3: CC MIS system partition limits (Part 3 of 4)

Entity	Limit
Public display screen definitions	250
Personal display screen definitions for each supervisor	5
Public tabular report formats	250
Personal tabular report formats for each supervisor	5
Public graphic report formats	250
Personal graphic report formats for each supervisor	5
Public report parameter definitions for each partition	500
Personal report parameter definitions for each supervisor	5
Spectrums within each type (answer delay, abandon delay, call duration)	10
Threshold definitions	256
Periods	13
Shifts	5
Wallboard display definitions	250
Wallboard message definitions	250
Log events for each agent per day	9999 (see Note 1)
Days of log event records stored	9999 (see Note 1)
Days of interval records stored	9999 (see Note 1)

Table 3: CC MIS system partition limits (Part 4 of 4)

Entity	Limit
Days of daily records stored	9999 (see Note 1)
Weeks of weekly records stored	9999 (see Note 1)
Months of monthly records stored	9999 (see Note 1)
Note 1: This value is determined within the database Storage Calculator, which defines the historical database with enough storage to hold the specified amount.	

The CC MIS system user can specify names for certain objects. Depending on the object type, a specific limit exists to the number of characters in the object name. Additionally, display limits can prevent some characters from being displayed under certain conditions. For example, each ACD group can be assigned a textual name (as opposed to the directory number [DN]), which normally identifies the group).

In the ACD Group Definition window, the user can enter up to 16 characters for the group name.

In other areas of the system (for example, configuration control), all characters are displayed. In reports, the column width of the report field determines the number of characters printed. For standard reports, the column width for group name fields is 16. However, the user can create custom report formats and decrease the column width. Microsoft Windows imposes additional limits on the number of characters that can be displayed for object names. As in typical graphical user interfaces (GUI), proportional width fonts are used to display text. This means that some characters use more space (such as W) than other characters (such as i).

For the CC MIS Supervisor interface, field widths accommodate the maximum number of characters allowed for an object name by using an average character width.

Therefore, if a user chooses the maximum number of characters to name an object, the complete name is displayed in all situations, provided the average width of all the characters chosen does not exceed the average width used to design the displays. If the name includes a large number of capital letters (especially W), the name may not be completely visible on all screens. However, if the name includes mostly lowercase characters, then more than sufficient room should exist to display the name on all screens.

The basic guideline to follow when defining names for objects is to avoid over-use of capital letters because these letters are typically wider than the lowercase equivalent. If you follow this guideline, then all user-defined names should be completely displayable. Nortel also recommends the use of abbreviations and that you ensure that the displayable portion of a name is unique.

All names that are delivered with the product (that is, names of standard objects) should not exceed any field width.

To help the user enter names in the Supervisor interface, the entry fields accommodate the largest number of characters with the average character width. If the user enters a name that exceeds this width without exceeding the maximum number of characters for the object, the Supervisor interface scrolls horizontally as additional characters are entered.

Table 4 contains the limits for each object name.

Table 4: Limits when defining object names (Part 1 of 3)

Object type	Maximum characters
ACD Group Name	16
Primary/Supplementary DN **Note:** This is a numerical value only.	16
Logical Group Name	16
ACD-DN Name	16

Table 4: Limits when defining object names (Part 2 of 3)

Object type	Maximum characters
Supervisor Login ID **Note:** This is a numerical value only.	4
Supervisor Name	16
Supervisor Password (not displayed)	16
Privilege Level Name	20
Scope Name	20
Agent Name	16
Agent ID **Note:** This is a numerical value only.	4
Agent Comment	20
User Defined Threshold Name	10
Time Frame Period Name	16
Customer Name	16
Walkaway Reason	30
Walkaway Code Descriptor	3
Employee ID	14
Line-of-business Code Name	30
Schedule Name	40
List Name	16
Report Parameter Definition Name	40

Table 4: Limits when defining object names (Part 3 of 3)

Object type	Maximum characters
Report Format Definition Name	55
Formula Name (Reports)	64
Graphical Report Data Axis Title	20
Graphical Report Key Axis Title	20
Report Parameter Definition Name	40
Tabular Report Custom Heading (each line)	132
Display Quadrant Definition Name	40
Display Quadrant Custom Heading (each line)	32/65 **Note:** The small value is for half-width quadrants while the large value is for full-width quadrants.
Display Screen Name	40
Formula Name (Displays)	64
Wallboard Message Definition Name	100
Wallboard Display Definition Name	40
Formula Name (Displays)	64
Wallboard Message Definition Name	100

Chapter 4

Functions and features

In this chapter

Introduction

CC MIS performs the following functions to help manage ACD operations:

- data collection
- reporting
- configuration control

In addition to these functions, CC MIS provides the following software features:

- three modes of operation
- graphical Supervisor interface
- standard and customizable real-time displays and reports
- administration of supervisor profiles by system administrators
- maintenance and administration of the CC MIS system
- enhanced security for better control over access to CC MIS
- multiple user partitions
- multilingual capability
- networking of CC MIS systems

Note: For information about features that are hardware-dependent, see “System components and capacities” on page 15.

Enhancements in Release 6.0

CC MIS Release 6.0 provides the following changes and enhancements.

Supervisor interface

The CC MIS Supervisor interface offers the following changes and enhancements:

- Individual walkaway code thresholds—The expanded Walkaway Code Definition window includes an optional code-specific threshold field to allow different thresholds to be assigned to each walkaway code. This change affects when a position in the walkaway state is highlighted on the Agent Status display. In previous releases, positions in walkaway state were highlighted based on the single walkaway threshold value associated with the ACD group of the position. This functionality remains as the default in Release 6.0 but provides some flexibility about when a position in the walkaway state should enter a highlighted state.
- System reports to e-mail or file destinations—CC MIS system reports (that provide a list of various CC MIS database tables) can be sent to files on disk or as e-mail in the same manner currently used for historical reports.
- Report delimiters for reports saved as files—Use the Client Services Filing tab to specify a text file to be prepended to each report saved to disk. The text in this prepended file can serve as a delimiter used to parse data if the report is sent to an external system for processing.
- Use of Windows Installer for CC MIS Client Setup program—The CC MIS Client Setup program no longer uses the InstallShield program. Instead, the program uses the Microsoft Windows Installer program. The operation and use of the setup program remains largely the same; however, the user interface in the installation program is slightly different.
- Sending reports as e-mail messages from the server—The CC MIS server can generate reports as e-mail messages directly, without requiring the report to be sent from an e-mail account that is accessible to one or

more CC MIS clients. This feature increases security and eliminates the need for a selected CC MIS client to run at all times. This functionality is supported only on the Linux platform.

Note: This feature requires that the Linux Sendmail program is properly configured on the server. This capability is provided partition by partition through a new setting in the Partition Options screen of the CC MIS Configuration utility.

- Security Banner—The Customer Options screen is changed to add an option to enable or disable a security banner dialog box to be displayed either upon successful connection to the server or upon each successful supervisor logon. Default text for the security notice is provided, which the customer can modify through the Customer Options screen. The default text for the security banner is as follows:

  ```
  WARNING!  This computer system and network is PRIVATE
  and PROPRIETARY and may only be accessed by authorized
  users.  Unauthorized use of this computer system or
  network is strictly prohibited and may be subject to
  criminal prosecution, employee discipline up to and
  including discharge, or the termination of vendor/
  service contracts.  The owner, or its agents, may
  monitor any activity or communication on the computer
  system or network.  The owner, or its agents, may
  retrieve any information stored within the computer
  system or network.  By accessing and using this
  computer system or network, you are consenting to such
  monitoring and information retrieval for law
  enforcement and other purposes.  Users should have no
  expectation of privacy as to any communication on or
  information stored within the computer system or
  network, including information stored locally or
  remotely on a hard drive or other media in use with
  this computer system or network.
  ```

  The Security Banner dialog box has OK and Cancel buttons to close the dialog box. If you click the Cancel button, the connection or logon action is cancelled.

Note: You can provide a security notice on the Maintenance interface by creating a text file named /etc/motd. This file, if it exists, is displayed immediately after a Linux user logs on but before the shell starts.

Maintenance interface

The CC MIS Maintenance interface offers the following changes and enhancements:

- The maint user ID is replaced with a ccmis user ID. The ccmis user ID is used to log on to the CC MIS server to perform CC MIS maintenance and administration functions.
- With some exceptions, you can enter host names anywhere you can enter an IP address. The use of host names requires that a name resolution protocol be configured on the server (DNS or NIS).
- The Operating System Configuration option was removed from Maintenance and Administration main menu.
- A Reboot option was added to the Run State Utilities menu.
- The Backup and Restore Utilities menu has the following changes:
  - Tape backup is no longer supported. Instead, a user-specified directory is used to back up CC MIS. The user can configure this directory to point to any device that can be mounted as a Linux file system, including an additional hard disk, a Network File System (NFS)-mounted file system, or any other network storage device that can be configured as a writable file system.
  - An Import option was added to the Backup and Restore Utilities menu, with which you can import selected CC MIS databases from other CC MIS systems over a TCP/IP connection. CC MIS Release 6.0 systems can import data from PowerPC/AIX or 88K/SVR4 CC MIS systems that run Release 5.2 or later.
- The Diagnostics menu has the following changes:
  - The Diagnostic > Log utility is modified to print logs to the default system printer.
  - The Configuration > Disk Storage command replaces the Display Free Disk Space.

- The Link Trace command is renamed to Trace Switch Link.
- The default system printer is used to print the link trace.
- The TCP/IP Switch Link Diagnostics command is removed.
- The Test Input/Output (I/O) Ports command is removed.
- The Reset Modem Port command is removed.

- The Configuration menu has the following changes:
  - The CC MIS Configuration utility has two modes: Display Only and Updates Allowed. The utility starts in Display Only mode. If the administrator must make a change, an explicit mode change is required using the Get Update Access Rights option on the main menu to switch to Updates Allowed mode.
  - A 2-minute inactivity timeout is available in Updates Allowed mode. If the timeout expires, the user is forced from the Configuration utility and returned to the main Maintenance and Administration menu.
- The Configuration > System Configuration > LAN Parameters section is removed on the Linux system. This configuration is performed directly through operating-system utilities.
- The Configuration > System Configuration > Maintenance Printer Definition section is removed.
- Direct X.25 connection to the switch is not supported. Links to the switch must be made using a TCP/X.25 bridge device that is configured to provide an IP-to-X.25 bridge. You cannot configure an X.25 switch link on Linux systems. Instead, you can define live TCP/IP switch links and simulator links.
- The Configuration > Disk Allocation option is changed to Configuration > Disk Storage. An Add function key is added to the Disk Storage screen so that users can add a new file system to CC MIS to store CC MIS data.
- A Host Email Support option is added to the Configuration > Partition Configuration > Partition Options screen to send reports directly from the CC MIS server, by e-mail.
- The Configuration > Partition Configuration > Printers Configuration option is removed. Only PC-attached printers can be configured as a destination for reports in the Supervisor interface.

- The Printer Configuration report is removed.
- CC MIS does not use printers configured on the CC MIS server to print reports generated in a customer partition. The Microsoft Windows printer interface provides a standard interface to print CC MIS reports. Printing from the CC MIS Maintenance and Administration interface is directed to the system default printer. The current set of Configuration Reports available within the CC MIS configuration utility can print to any client-attached printer, be sent to an e-mail address (if Sendmail is configured), or be saved as a text file on disk.

For detailed information about the Maintenance interface, see *CC MIS Installation and Maintenance* (297-2671-545).

Data collection

CC MIS collects information about the ACD operation and stores the data in a historical database. The database performs the following functions:

- maintains data elements for the length of time required by the customer
- provides report generation for any time period for which the data was collected and stored

CC MIS provides flexible report generation as a result of the way it collects and stores data and generates reports.

Collecting and storing data

CC MIS stores historical data in the following granularities:

- Interval data—Data collected for specified time periods (intervals) that is stored for a specified number of days. Intervals can be 5, 10, 15, 30, or 60 minutes and can be different lengths for each hour of the day.
- Daily data—24 hours of interval data that is stored for a specified number of days
- Weekly data—7 days of daily data that is stored for a specified number of weeks
- Monthly data—Monthly data that is stored for a specified number of months

In addition, CC MIS can combine some of these granularities at report generation time to provide the following manufactured granularities:

- Shift data—A combination of the appropriate and available Interval records
- Period data—A combination of the appropriate and available daily records

Impact of storage parameters on reports

When you configure the database, you define the number of days, weeks, and months for which data is stored in these categories. The number of days for which you keep this data determines the time periods for which you can generate valid reports.

You can request reports for time periods that extend beyond the data retention values set for the database. However, these reports provide data only for the time periods supported by the data retention values. Periods that extend beyond the data retention values are listed, but no values are provided.

Impact of storage parameters on disk space

The length of time that data is saved, with the number of agent positions and ACD groups, determines the amount of disk space required for the historical database. When you configure a partition, the system calculates the amount of disk space required for the partition historical database, based on the data storage options, data retention periods, ACD group and position maximums, and other usage parameters entered in the Storage Calculator.

Database configuration parameters

You can configure the historical database to meet the requirements of your installation. Set the configuration parameters based on the following information:

- the size of your ACD operation according to the number of
  - ACD groups, positions, Supplementary DNs (SDN), and agents
  - line-of-business codes used by an ACD group
  - walkaway codes used by an ACD group
  - source and destination ACD groups used for overflow and transfers
  - agent events per day

- position moves per day
- ACD-DN reassigns per day

Note: The Storage Calculator provides an Analyze Configuration soft key to help determine many of these values. This soft key examines the ACD configuration information downloaded from the switch to determine the numbers of ACD groups, positions, and ACD-DNs, and looks at group overflow configuration to attempt to determine the maximum number of overflow combinations between ACD groups.

- the hours of operation according to the number of
  - shifts
  - operational hours per day and week
- the storage duration of data

The system ensures that the database configuration values are not exceeded for the number of ACD groups and the number of positions.

When these values are exceeded, the system generates a warning log message to indicate the values are exceeded but continues to store data until the maximum limits of the product are reached or the database capacity is exceeded. When the configured limit (disk space for the partition) is reached, the oldest data is deleted to make room for new data.

Note: No data type has precedence over other data types with regard to storing or dropping data.

Changing the configuration parameters

While the system is operational, a maintenance engineer can view and change the database configuration. If configuration parameters are changed, you can lose data. If you decrease any database configuration parameters (such as the number of ACD groups or the number of days of interval data) and reduce the database Size Limit field, then CC MIS removes the oldest data stored in the database until the current disk usage is within the new limit.

System partition databases

You can customize system partition databases for a particular user. When a partition is added to the system, the administrator can adjust disk resources using the Configuration > Partition Configuration Partition Options > Disk Allocation command. You must perform Storage allocation for each partition.

When defining a partition, you must follow the procedures specified in *CC MIS Installation and Maintenance* (297-2761-545). Plan to spend from 5 to 15 minutes to define a partition.

Multitenant local partitions

You can logically partition a node so that multiple customers can coexist on a single node. You can have up to 64 local customer partitions. Each local partition contains its own system and historical database, which means that partitions can run in various modes. For example, a partition for Customer A can run in training mode while a partition for Customer B is in product mode. You can add or delete partitions while the system runs without disturbing other partitions. You can independently start or stop partitions to allow transitions between the training, precut, and product modes without affecting other partitions.

For more information about these modes, see “Modes of operation” on page 57.

Add or delete partitions using the commands on the Configuration > Partition Configuration menu in the Maintenance interface. Start and shut down partitions by selecting the Run State Utilities command and then selecting the Partition Startup and Shutdown option.

When the networking option is enabled, in addition to local partitions, you can define Network Access Partitions (NAP) to view and consolidate data from local partitions on other nodes within the defined network.

Modes of operation

With the CC MIS application, you can have partitions running in different modes. CC MIS partitions operate in the following modes:

- training mode
- precut mode
- product mode

You can have one partition in product mode (running a live link), while another is in training mode (running with a simulator link). Converting a partition from one mode to another does not affect other partitions.

When you first create a partition, the partition is in setup mode. The partition cannot be transitioned from setup mode until you complete enough datafill to allow the transition. The CC MIS application does not allow a partition to transition from setup mode if necessary datafill is missing.

Training mode

When a partition is in training mode, supervisors train on the product without affecting live calls. In training mode, no connection exists between the partition and the DMS-ACD, and only training data is collected and reported.

When a partition is in training mode, CC MIS interacts with a simulator to provide training data. The simulator uses call scenarios and configuration control typical to the ACD environment. During training, supervisors can adjust load management values and move position assignments through the configuration control capability of CC MIS. As a result, the simulator generates ACD switch responses that are identical to ACD processing in a live environment.

Precut mode

While a partition is in precut mode, system engineers can enter all administration data into the new partition databases in preparation for transition to product mode. While running a partition in precut mode, it is possible to run with a simulator link; however, Nortel recommends that you use the actual live link to access the real switch configuration information while various system definitions are being defined (such as scopes and ACD group definitions). During precut mode, the following information is established:

- link and subpool parameters
- database storage parameters
- ACD group, agent names, and threshold values
- supervisor profiles, privilege levels, and scope definitions
- custom report definitions, display definitions, and schedules

Although CC MIS collects statistical data in precut mode, this data is deleted upon transition to product mode. In precut mode, you can establish parameters that affect the collection of statistics (such as threshold definitions) prior to going live. After you define these parameters, the transition to product mode removes the statistical information captured during precut mode so that the data collected prior to establishing the proper threshold values does not skew reports that are generated in product mode.

Product mode

By transitioning from precut mode to product mode, CC MIS collects live data based on the configuration of its ACD groups and agents. CC MIS stores the information it receives based on the configuration database. In product mode, CC MIS connects the local partition and the DMS-ACD and begins collecting live data based on the configuration of its ACD groups and agents. The transition to product mode erases all statistical data captured by the partition in precut mode.

Simultaneous training and product modes

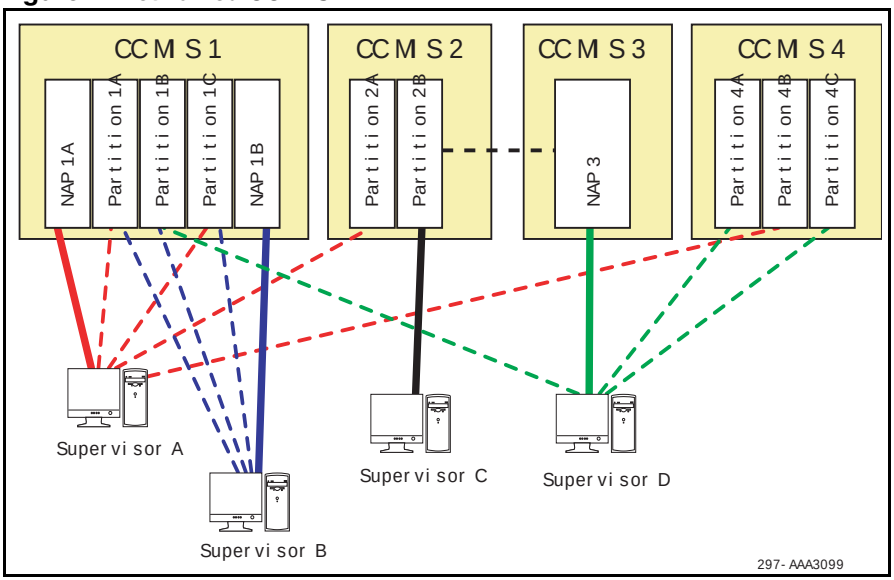
Transition from training to product mode on a partition occurs without affecting the states of other partitions. The switch simulator program can run while an active switch link also runs. For single-user installations, the multiple partitions are useful because a small partition can remain in training mode. New supervisors can train on the system before they move to a live partition.

Networked CC MIS

You can network CC MIS systems to access partitions on separate nodes. When networking is enabled, you can specify network nodes (nodes that compose the network) and define NAPs to access specified partitions within the defined network. With the Networking feature, supervisors can view CC MIS partitions on nodes other than the one to which they are connected (see Figure 7).

Note: Solid lines indicate direct connections. Dashed lines indicate the ability of NAP to view partitions defined in the Virtual Network for the NAP.

Figure 7: Networked CC MIS



User interface

Supervisors and system administrators access system functions through screens and menus, provide input to the screens through the keyboard and a mouse, and have access to online Help.

CC MIS uses PCs as supervisor terminals. Supervisors can print reports to printers attached to the PC.

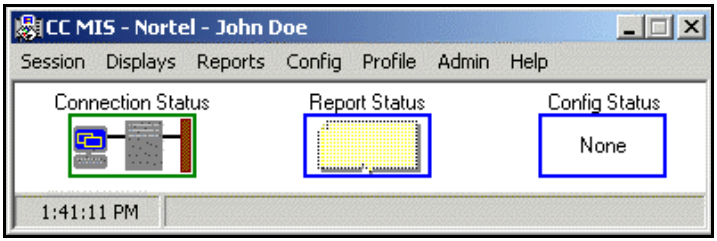
The main menu

The supervisor selects functions from the main menu, which appears when the supervisor logs on. However, a supervisor's main menu displays only the functions that are enabled in the supervisor's profile; therefore, the main menu can be different for each supervisor.

Most functions on the main menu have submenus and commands to guide supervisors through CC MIS.

Figure 8 shows the main menu with all CC MIS options enabled.

Figure 8: CC MIS main menu



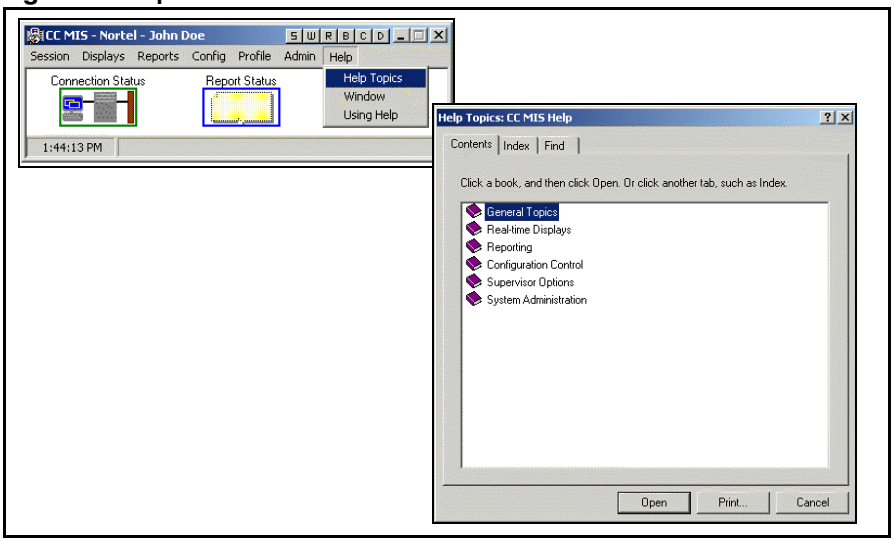
Online Help

The online Help system provides information about using the product and its screens to perform functions.

Using the Windows online Help

The Windows online Help system is available from the main menu, accessed through the Help drop-down menu (see Figure 9).

Figure 9: Help menu



From the Help menu, you can access the information in the Help file in three different ways, as described in Table 5.

Table 5: Online Help commands

Command	Explanation
Help Topics	List all the topics for which help exists. You can double-click a topic to view the corresponding information.
Window	Display the Help screen that contains information specific to the current window.
Using Help	View information about how to use the Help system in Windows.

Real-time displays

CC MIS provides two types of real-time displays:

- Agent Status
- Queue Statistics (see page 64)

Agent Status display

The Agent Status display provides the status of individual agent positions.

CC MIS updates the information on the display as soon as it is notified by the ACD switch. Figure 10 on page 65 shows the Agent Status display.

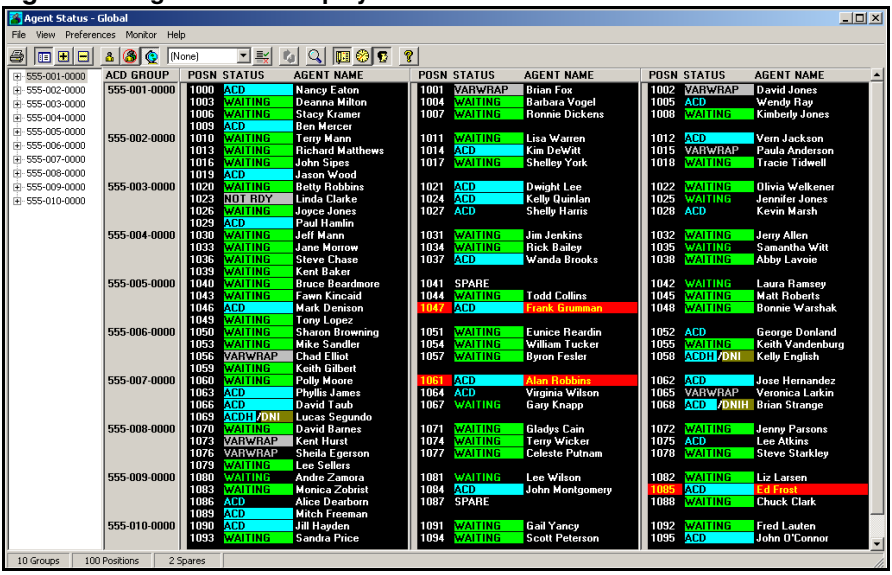
You can define thresholds for the states of an agent position so that when a position remains in the state for too long, the position is highlighted to call attention to it.

While in the Agent Status display, the supervisor selects the global, scope, or subgroup view through a menu command.

- The global view shows all agent positions currently monitored by the CC MIS system partition.
- The scope view shows all agent positions that are assigned to any subgroup listed in the supervisor's scope definition.
- The subgroup view restricts the view to all agents within a specific subgroup in the supervisor's scope definition.

Note: The options enabled in the supervisor's profile determine the views available. Specifically, the global view may not be available to the supervisor due to a privilege restriction.

Figure 10: Agent Status display



The following are features of the Agent Status display window:

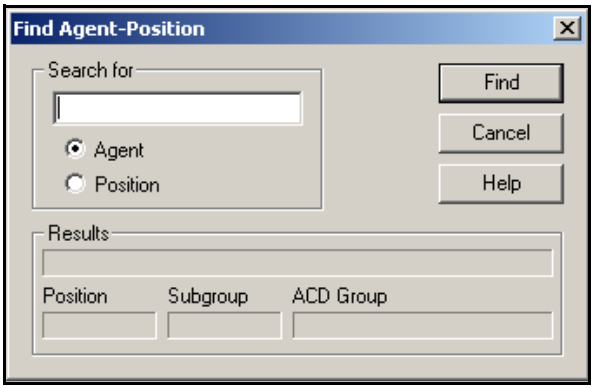
- Agent, ACD group, and Subgroup Detail windows
- A Navigator pane shows the relationship between ACD groups and subgroups. The Navigator pane allows easy navigation between subgroups and facilitates drag-and-drop reassignment of positions to different subgroups.

  Note: The supervisor must have Position Reassignment privileges to use this feature.
- The Agent Status display lets a supervisor hide spare positions (that is, choose whether spare positions are displayed).
- State duration timers provide a real-time view of the length of time each position has been in its current state.
- Position states are highlighted whenever the position is in the current state longer than the defined threshold value for that state.

Locating an agent or position

You can locate an agent or position using the View > Find command on the Agent Status window. Figure 11 shows the Find Agent-Position dialog box.

Figure 11: Find Agent–Position



Note: In Agent mode, you can enter either an agent ID or an agent name (you must enter the complete name).

Tracking of dual DNs

A CC MIS supervisor can view the status of two DN keys. Activate this option using the Preferences > Dual DN Status command. When activated, a second timer for the second DN is displayed.

Agent Detail window

Right-click any position ID and select Detail to display the Agent Detail window. The Agent Detail window contains an Options menu with the following real-time agent statistics:

- Call Totals
- Average Durations
- Time Allocations

ACD Group Detail window

Right-click any ACD Group ID to display the ACD Group Detail window.

Subgroup Detail window

Right-click any Subgroup ID to display the Subgroup Detail window.

Layout of the display

You can select the layout, either vertical or horizontal, for the display so that you can review position status in the way that is preferable to you. Select the layout in the Preferences menu on the Agent Status display.

Viewing duration in the display

You can view the amount of time that each agent spends in each ACD state. A timer is available for primary ACD states and secondary DN states for each agent. To enable this feature, the supervisor selects Preference > Durations from the Agent Status display.

Hold time for duration in the display

You can specify how the timers in the duration field operate. When hold time is enabled, the current elapsed time for the ACD or DN call is reset and begins to increment when the call is placed on hold. This value is displayed with an underline in the duration field. To enable this feature, the supervisor selects Preferences > Hold Time from the Agent Status display.

Queue Statistics display

The Queue Statistics display provides statistics that reflect the efficiency with which an ACD group handles the call load. Standard Queue Statistics displays are provided so that you can view commonly required information about the groups you supervise.

The system provides four standard Queue Statistics displays:

- Standard Tabular Queue display (see Figure 12 on page 68)
- Standard Graphic Queue display (see Figure 13 on page 69)
- Graphic Grade of Service display (see Figure 14 on page 70)
- ACD Group Summary display (see Figure 15 on page 71)

In addition, you can create your own display to view information specific to your ACD operation. The display you create is based on the statistics collected by CC MIS, standard formulas provided by CC MIS, and custom formulas created by your system administrators to support your ACD operation. The displayed information is refreshed at the rate defined by the supervisor's profile (2 to 60 seconds).

By providing the ability to customize real-time displays, CC MIS gives you the flexibility required to manage ACD operation.

Figure 12: Standard Tabular Queue Statistics display

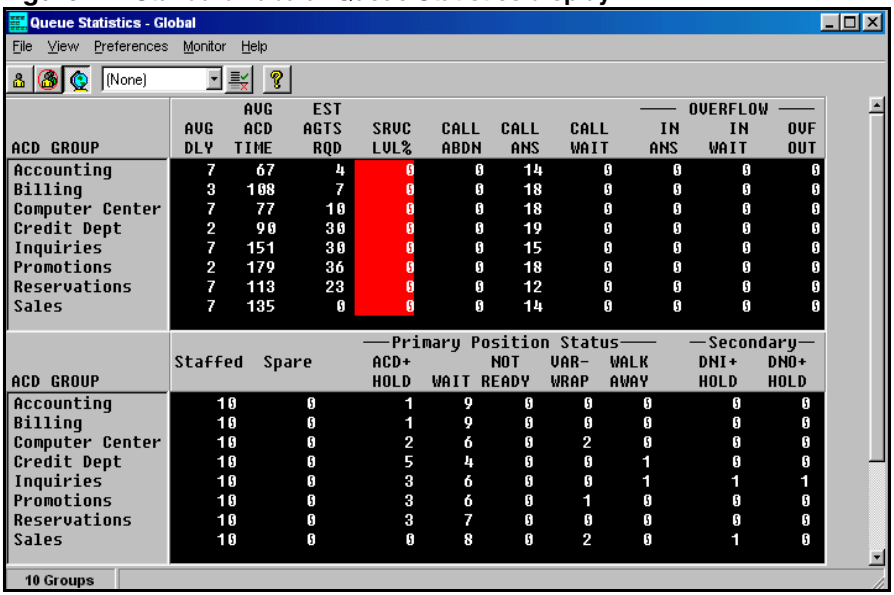


Figure 13: Standard Graphic Queue Statistics display

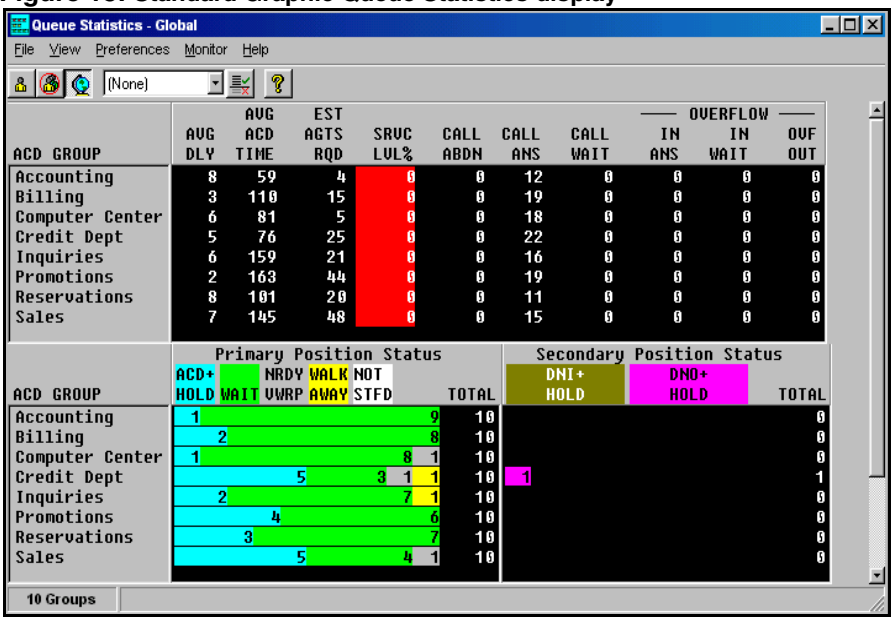


Figure 14: Graphic Grade of Service display

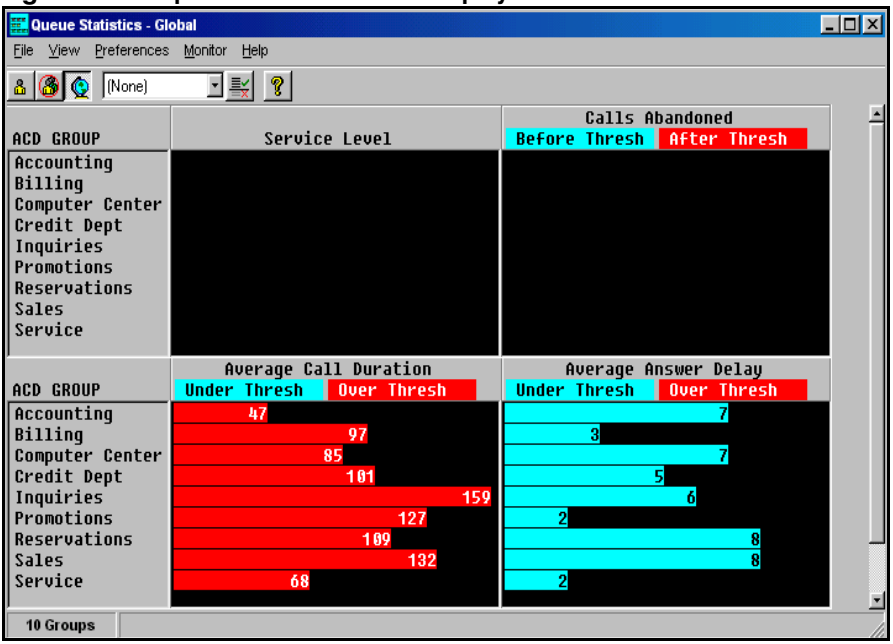
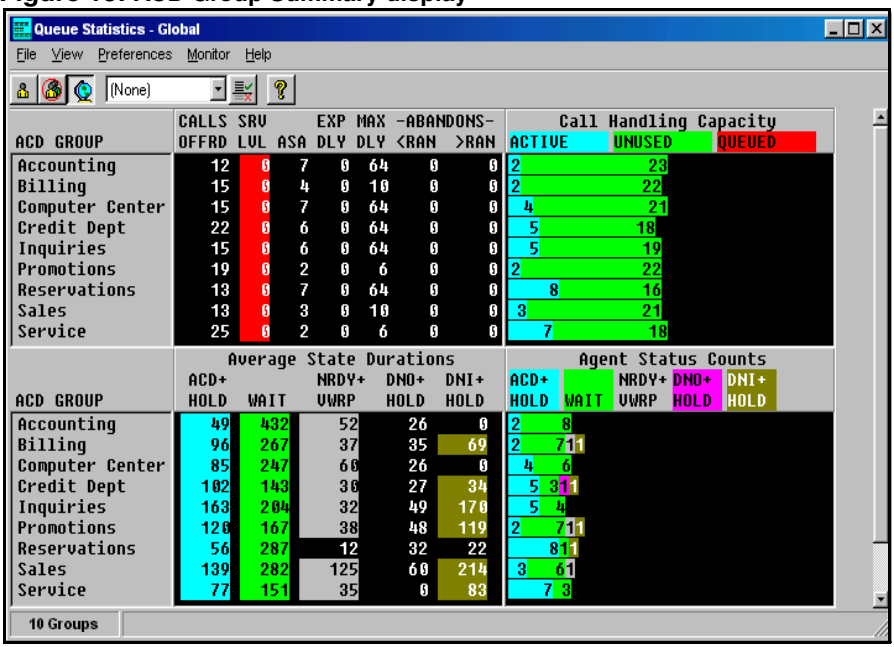


Figure 15: ACD Group Summary display



Reporting

With CC MIS, you can generate historical reports, agent log reports, and system reports.

- Historical reports are customizable reports that contain information about call events.
- Event log reports are noncustomizable reports that contain information about agent logon and logoff events and walkaways.
- System reports are noncustomizable reports that contain information about the CC MIS configuration. An example of a system report is the Agent Database Report, which lists all agents defined on the system and their configuration information.

Note: For examples of these reports, see Appendix A, “Example reports”.

Generating historical reports

With CC MIS, you can define the presentation and contents of historical reports that contain call event information. You can define the statistics that are included in the report, the time period of the report, and the format of the report.

Possible statistics groups

CC MIS groups the data it collects into six statistics groups. Each group has key fields that allow control over the order and totaling of data in the reports. The groups are as follows:

- Destination ACD group statistics—maintains statistics by ACD group
- Overflow statistics—maintains statistics associated with each distinct combination of source and destination ACD group
- Agent statistics—maintains statistics associated with specific agents to keep data separate for agents that move between supervisors and groups

- Line-of-business codes—maintains statistics associated with line-of-business (LOB) code data by group and agent
- ACD-DN—maintains statistics by ACD-DN (primary and supplementary)
- Walkaway—maintains statistics associated with walkaway codes by ACD group and by agent

Note: You can completely disable each of the last three statistics groups in the Storage Calculator, or you can configure them to store data by agent or ACD group. Storing these statistics by agent provides the most detailed information but requires the most disk space.

Report formats

The report format determines the statistics provided in the report and the format of the report (tabular or graphical). A tabular format presents data as numbers in columns. A graphical format presents data as line graphs, stacked line graphs, vertical or horizontal bar charts, and pie charts.

Standard report formats

CC MIS provides a comprehensive set of standard report formats. These formats contain information commonly used by any ACD operation. The information is either a raw statistic collected by CC MIS or data that results from a formula that combines the raw statistics mathematically. Appendix A, “Example reports” on page 95, contains a complete list of standard reports and examples of each report.

Custom report formats

You can create your own report formats with CC MIS. By creating your own report formats, you select the statistics that appear in the report and the format of the report.

Data Export report format

You can create standard or custom tabular reports in a Data Export format. The differences between the Data Export report and the standard format are as follows:

- The Data Export reports have no column headings, total lines, or total indication lines.
- The report title is the topmost line of the report.
- Each key field is repeated on every detail line.
- Key fields are enclosed in double quotation marks (“ ”) and all fields are delimited by commas (,), which is compatible with the Comma Separated Value (CSV) format used by many spreadsheet packages.

The Data Export report can be directed to a printer port to which a device such as a PC or other computer is attached. This computer monitors for data and extracts it as CC MIS sends it. Additionally, the report can be directed to a disk file on a supervisor terminal that is configured through Client Services.

Standard and custom report formulas

When creating custom report formats, you can use either of the following:

- any of the standard formulas provided with the system
- the Formula Definition capability to build custom formulas using any raw statistics collected by CC MIS.

After you define these custom formulas, you can use them in any custom report formats you define.

Using spectrums

Reports can provide information about spectrums, which are fields that are time-based and consist of multiple time-value categories. Three different spectrums are available:

- answer delay
- abandon delay
- ACD call duration

CC MIS provides standard spectrum definitions that you can modify. When you modify the spectrums, you distribute the time values (in seconds) into a time spectrum of up to 10 categories for reporting.

Report parameters

Report parameters determine the database records that are included in the report. The parameters identify the report format, the time frame of the data to retrieve, the method to sort and total the data in the report, and the specific key fields to extract.

Reporting by logical groups

With the ACD switch software, you can define groups of agents that process ACD calls.

You can associate multiple groups so the historical data for all the groups is combined for reporting. As a result, you report by logical groups.

Requesting reports

You can generate reports as they are needed, or you can set up a recurring schedule. In addition, you can view historical reports on your terminal; you can send them to a printer or to a file; or you can send an e-mail message with the report in the body of the e-mail message or as an attachment.

Event log reports

CC MIS provides five event log reports for agents, including an Agent Trace Report. These reports are not customizable as are other historical reports. However, they require the definition of report parameters to determine the data to extract from the database.

Note: For examples of these reports, see “Event log reports” on page 174.

System reports

CC MIS provides a comprehensive set of system reports. These reports correspond to the system administration data built primarily from data entered through the screens that are accessible from the Admin menu of the Supervisor interface. These reports are not customizable and do not require the definition of report parameters to determine the data to extract from the database.

Printing reports

All reports generated through the CC MIS Supervisor interface are printed to printers configured in the Windows operating system of the supervisor terminals. To make a Windows printer available to the CC MIS system for printing reports, you must configure the printer in CC MIS using the Client Services window of the Supervisor interface.

You can configure only one Windows printer in Client Services for each supervisor terminal. After you configure this printer, it is available for all supervisors to use, provided the CC MIS supervisor software is running on that supervisor terminal. If a report is sent to a printer for which the CC MIS Supervisor interface is not currently running, the report is queued for printing and prints when the Supervisor interface next starts on that terminal.

In addition to printers, use the Client Services window to configure the supervisor terminal as a destination for reports saved as files or reports sent as e-mail. When an e-mail report is sent to a supervisor terminal for distribution through e-mail, an e-mail profile on the supervisor terminal is used as the source of the e-mail message.

Configuration control

CC MIS provides access for supervisors to configure elements controlled by the ACD switch. Table 6 identifies the elements you can change through CC MIS.

Table 6: Abilities provided through configuration control (Part 1 of 6)

Element to control	Ability provided
Agent position assignments	Reassign agent positions between ACD groups by changing the subgroup to which the position is assigned. This capability is also provided as a drag-and-drop operation in the Agent Status display.
Agent set parameters for an ACD group	Specify the multistage Queue Threshold type as Call Queue size or Call Wait time. Specify the threshold value that triggers the indicator on the agent set. Specify the number of digits displayed to agents in the ACD group. Specify the default LOB code for the ACD group. Specify the wrap-up time required by agents when they finish a call, thereby defining the amount of time an agent is considered not ready for the next call.

Table 6: Abilities provided through configuration control (Part 2 of 6)

Element to control	Ability provided
Queue sizes for an ACD group	Specify the maximum number of calls that the incoming call queue can have at one time. Specify the maximum number of seconds a call can be held in the incoming call queue before being answered by an agent. Specify the number of logical calls that can be queued. Specify the number of transferred calls allowed to wait in queue for agents in a group. Specify the number of seconds a call waits at a given priority level before being promoted to the next higher level.
Time overflow parameters for an ACD group	Specify if priority 0 calls are the only type of calls to time overflow. Specify when the timer starts on overflow calls; either immediately when queued or when the call reaches priority 0. Specify the number of seconds that a call remains in the incoming call queue before being offered to another group. Change the order in which call queues are handled. Change the time delay threshold time. Change the table and index value that determines the time delay threshold route.

Table 6: Abilities provided through configuration control (Part 3 of 6)

Element to control	Ability provided
Overflow targets for an ACD group	Specify the primary DN or group name of ACD groups to receive overflow calls for an ACD group. Change the table and index value that determines the route for new calls presented to a group that exceed the maximum queue size or wait time.
Recorded announcements for an ACD group	Specify the recorded announcement threshold for an ACD group. Specify the audio group for an ACD group. Specify the audio group used to give forced incoming announcements. Specify the audio group used to give forced overflow announcements. Specify the ACD group to provide forced incoming announcements and delay announcements for the overflow calls in an ACD group.

Table 6: Abilities provided through configuration control (Part 4 of 6)

Element to control	Ability provided
Special routing for an ACD group	Specify the table and index value that determines the night service route. Specify the audio group providing night service announcements prior to rerouting the call over the night service route. Specify the table and index value for the controlled interflow route. Specify Re-Enqueue Time in seconds. Specify Re-Enqueue Route consisting of a table and index. Specify Re-Enqueue Audio Route to provide announcement prior to rerouting call to Re-enqueue Route.
Networking parameters for an ACD group	Specify the number of calls that must be in the incoming call queue before new calls are networked to other groups. Specify the number of seconds that the oldest call must wait before new calls are networked to other groups. Specify the group preference weighting factor used to compute the best group to offer the networked call. Specify the most idle agent and number of idle agents weight factors used to calculate the resource index for the group. Specify the call handling time for the group. Specify whether to consider the source group when determining the best target group for time overflow calls.

Table 6: Abilities provided through configuration control (Part 5 of 6)

Element to control	Ability provided
ACD-DN assignment and priorities	Specify the trunk priority for primary or supplementary DNs. Specify the line priority for primary DNs. Line priority is used only for primary DNs. Reassign supplementary ACD-DNs to another ACD group defined in the CC MIS database. Specify the name for the ACD-DN.
Network targets for source/destination ACD group pairs	Specify the preference weighting factor for the source/destination ACD group pair. View the resource index for the destination ACD group.
View route and audio lists	View the route list to determine the routes each ACD group can access. View the audio list to determine the audio groups each ACD group can access.
View OFRT tables	View the Office Route entries that are defined on the ACD switch for all the ACD groups. Tables include OFRT, OFR2, OFR3, and OFR4.
View IBNRTE tables	View the International Business Route entries that are defined on the ACD switch for all the ACD groups. Tables include IBNRTE, IBNRT2, IBNRT3, and IBNRT4.
View audio table	View the list of all the audio group entries that are defined on the ACD switch for all the ACD groups.

Table 6: Abilities provided through configuration control (Part 6 of 6)

Element to control	Ability provided
View transaction log	View the log of changes made to switch configuration parameters using Configuration Control.
Create or modify change orders	Create or modify change orders, including attaching change orders to schedules.

Gaining access to Configuration Control

System administrators grant or deny a supervisor access to each Configuration Control function through the supervisor profile. When access is granted, a supervisor can alter the configuration of these elements at the ACD switch through CC MIS.

Implementing a configuration change

Supervisors with access to configuration control can make ad hoc changes as necessary to the configuration. System administrators can schedule a group of configuration changes.

Note: The term *ad hoc* is used in Configuration Control to indicate that the changes can be made immediately, without defining a change order or scheduling, by using the File > Execute command.

System reports

System reports provide information that describes the current state of the CC MIS customer configuration, including information defined through the screens available from the Admin menu.

In general, a report that contains administration data (Database Report) is a replica of the corresponding screen on which the data is entered.

The ACD configuration reports (ACD Group, ACD Network Targets, ACD Position, and ACD-DN) contain configuration data received from the switch, as well as configuration data modified through Configuration Control. You can obtain further details about this data from the *MSL-100 ACD-MIS Interface Specification*.

These reports are available at any time through the System Reports menu in the supervisors main menu. These reports can be sent to the same output destinations as the historical reports, but they cannot be customized.

Administration

System administrators control the functions that CC MIS supervisors perform. The system administrators have access to the administration modes of CC MIS to define supervisors and control access to features, and to define system-wide parameters.

Defining supervisors and their access

In addition to being a supervisor as defined by the DMS-ACD, individuals are defined as supervisors in the context of CC MIS. Supervisors in the CC MIS context may or may not be supervisors in the context of the switch and may not have an ACD set.

The role of the supervisor profile

A profile for each CC MIS supervisor identifies the supervisor to CC MIS and determines the capabilities of that supervisor. The privileges and preferences of each supervisor are stored for each supervisor ID in the supervisor profiles. These profiles are coadministered by the supervisor and by the system administrator. Table 7 summarizes the capabilities that can be assigned to a supervisor.

Table 7: Supervisor abilities (Part 1 of 2)

Options	Capabilities that can be assigned
Real-time display	Setting the default Queue Statistics display Setting the view of the display (Global, Group, or Subgroup) Setting the default view for the displays Setting the statistics update rate for the display Using an emergency indicator or an audible alarm

Table 7: Supervisor abilities (Part 2 of 2)

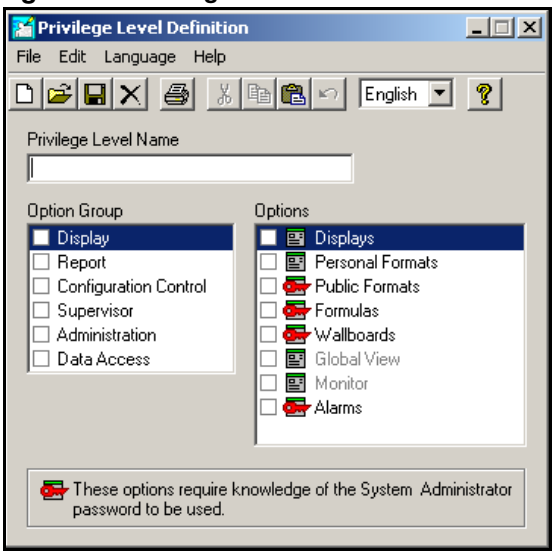
Options	Capabilities that can be assigned
Available modes	Maintaining their own profile Customizing the use of color Monitoring other supervisors Defining report formats and formulas Creating their own Queue Statistics displays Accessing Configuration Control Defining group members they can monitor Printing system reports Adding, deleting, and modifying wallboards Having system administrator status Defining schedules to print reports and make configuration control changes
Default printers	Setting the tabular and graphic printers to use, and enabling or disabling local printer override.

Supervisor privileges

The CC MIS software provides a Privilege Level Definition mode, where supervisor access restrictions are defined for all supervisor functions. A privilege-level definition contains settings for different classes of supervisors. The settings permit or deny access to each supervisor function, usually screen by screen. Access to some groups of screens, however, is controlled by a single access-control option, if screens combine to provide a single logical function.

The Privilege Level Definition window consists of a name field and a series of access control options grouped into functional groups. You can independently set most access control options; however, some options depend upon others. Figure 16 is an example of the Privilege Level Definition window. You can define up to 256 Privilege Level Definitions.

Figure 16: Privilege Level Definition



Note: Options marked with a key require that the supervisor also know the system administrator password (if the password is defined). The system administrator password is defined in the Customer Options screen. If this password is defined, the supervisor must enter system administration mode and supply the password in the process before the system grants access to these options.

Defining system-wide parameters

System administrators can access and modify system parameters that support the functions of CC MIS using the Admin menu. The following list summarizes these parameters, which can be printed using System Reports:

- Time frames definition—Defines the number of shifts and the shift starting time, as well as the number of periods and start dates. The historical reports use these definitions to access the database for shift, weekly, and period data summation.
- Threshold definition—Defines thresholds for Agent Status and Queue Statistics displays. In addition, five user-defined thresholds can be created and defined to highlight values that exceed or fall below the Agent Status or Queue Statistics thresholds.

  Note: The thresholds defined here have no relationship with ACD thresholds, which are defined on the ACD switch and accessed through configuration control.
- ACD-Group definition—Associates a name and threshold set with an ACD group, in addition to creating logical groups used in reports.
- ACD-DNs—Associates a name to a secondary or primary ACD-DN defined in the CC MIS system.
- Agent definition—Associates a name with an agent logon ID and an optional employee ID and is used in Agent Status display. A desired subgroup for the agent can also be defined if the Automatic Position Reassignment (APR) feature is used to move the agent's position to the correct subgroup upon logon.
- Customer options—Defines a name to appear in report headings, a system administrator password, and the tabular and graphic printers to be used for scheduled reports.
- Walkaway definition—Defines the walkaway codes and the walkaway reason associated with the codes (in addition to determining whether the walkaway event is stored in the agent log event database). The Walkaway Code Definition screen includes an optional code-specific threshold field, which allows different thresholds to be assigned to each walkaway code. This feature affects when a position in the walkaway

state is highlighted on the Agent Status display. By default, positions in walkaway state are highlighted based on the single walkaway threshold value associated with the ACD group of the position. However, the optional code-specific threshold field provides the customer with flexibility about when a position in the walkaway state enters a highlighted state.

- LOB definition—Defines the LOB codes and describes each code.
- SNMP—Enables the SNMP feature for a supervisor by setting the Alarms option in the Privilege Level Definition window.

Multilingual support

CC MIS administration includes a Language Options screen where you can enable multilingual capability. This screen is available only if you purchased the multilingual option and if the option is enabled by the license keycode installed on the system. The three languages supported are English, Latin-American Spanish, and Canadian French.

If you purchased the multilingual option, CC MIS provides a multilingual Windows interface. You can enable and disable the multilingual option for each partition.

Some customizing screens require the user to enter text that is associated with the object being defined. The user-defined text must be entered in all enabled languages for the objects to appear in the supervisor's preferred language. Screens that contain text definition fields that must be entered in multiple languages contain a toggle field displaying the current language. Use the toggle field to select the language in which the title field is displayed or defined.

If only one language is configured, the language toggle field does not appear, and all other aspects of multilingual support are hidden.

Maintenance and administration

Engineers maintain CC MIS through the maintenance console. Through this console, engineers perform the following functions:

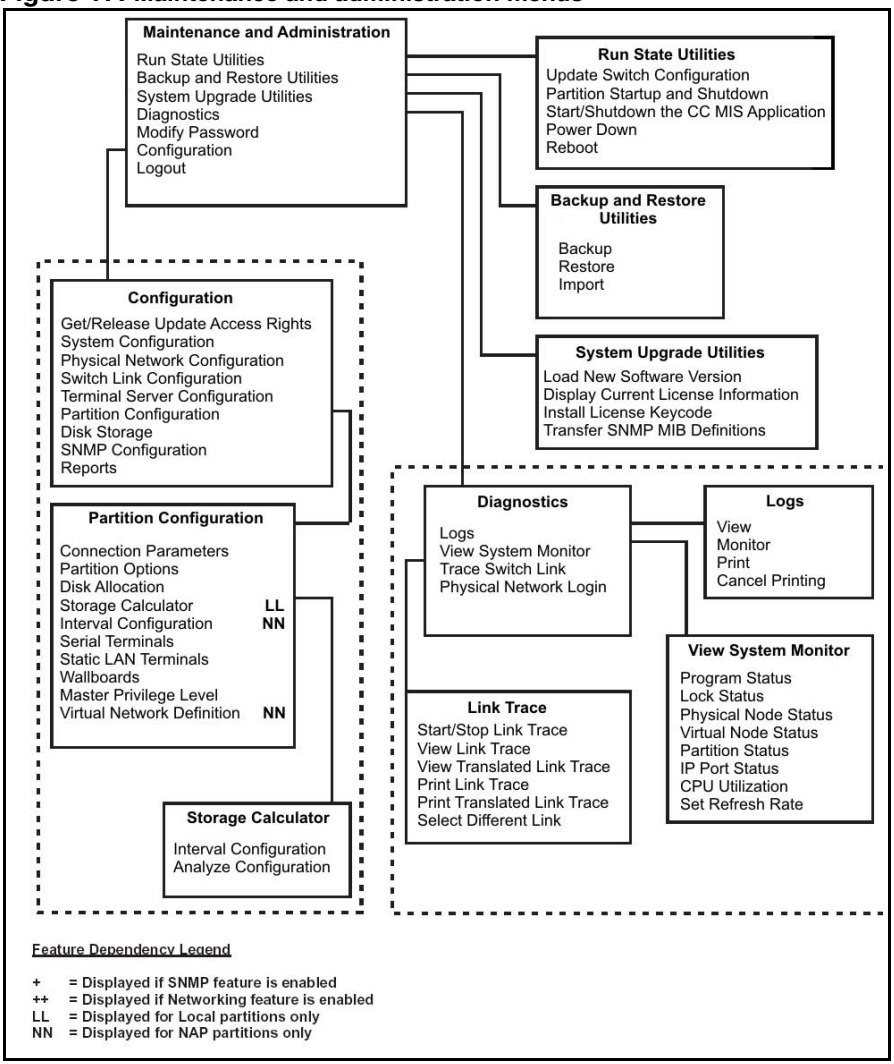
- perform diagnostics
- adjust CC MIS configuration and logon parameters to the switch
- add and delete partitions
- view and print various logs
- perform routine backup, restore, and software upgrade functions for the CC MIS system
- establish and modify CC MIS network parameters

Engineers can perform these functions at the physical console associated with the server (consisting of a monitor, a keyboard, and a mouse) or through dial-up or Telnet access to the server. The Maintenance interface is completely text-based for easy remote access.

Maintenance and administration menus

Maintenance and administration functions are available to the maintenance administrator through a series of menus. Figure 17 shows how the menus branch. For detailed information about the Maintenance interface, see *CC MIS Installation and Maintenance* (297-2671-545).

Figure 17: Maintenance and administration menus



The effect of maintenance functions on the system

The availability of certain functions depends on the state of CC MIS. Most functions are available at all times; however, some functions can be performed only when CC MIS is shut down, while other functions can be performed only when CC MIS is operating.

Partitions can be running or stopped. Stopping one partition does not affect the running status of other partitions.

In most cases, when a maintenance function requires that CC MIS shut down, the shutdown of CC MIS is automatic. When you request such a function, the software requires that you confirm the CC MIS shutdown. The confirmation gives you control over the state of CC MIS. Table 8 identifies the functions that require CC MIS to shut down and indicates whether the shutdown is automatic.

Table 8: Functions requiring shutdown

Function	Manual shutdown	Automatic shutdown
Load new software version	—	X
Install license keycode **Note:** You must manually restart CC MIS after you install a new license keycode.	X	—
Change the CC MIS Network Name field in the Configuration > System Configuration screen	X	—

The Maintenance and Administration system takes into account the state of CC MIS and accordingly alters the menus. For example, the menu commands on the Run State Utilities screen change with the state of the CC MIS application. An example of this changing menu command is as follows:

- Startup the CC MIS Application (when CC MIS is shut down)
- Shutdown the CC MIS Application (when CC MIS is running)

Appendix A

Example reports

In this Appendix

Introduction

CC MIS has a series of predefined standard formats for reports. Examples of the CC MIS management reports are shown in the figures in this appendix.

CC MIS provides the formats for standard reports. These formats generate tabular and graphical reports. The following sections describe the standard report formats. A legend following each report identifies the report fields.

Note: When these reports are generated on a NAP partition, the Agent ID, subgroups, and position ID fields in reports include the network location (partition code) and the agent ID. For example, AGT ID 1010 appears as NET1 - 1010, with NET1 being the network location identifier (partition code of the local partition for the agent).

The example reports shown in this appendix are screen captures of the report preview screens; therefore, some images may not contain all of the total fields that appear on that report.

For a complete reference of all raw statistics and standard report formulas, see the “Historical Reporting Statistics Reference” topic in the online Help.

Report summary

This section includes information for the following report formats:

- Table 9 on page 98 lists the standard tabular report formats. For detailed information about these reports, see “Standard tabular management reports” on page 103.
- Table 10 on page 101 lists the standard graphical report formats. For detailed information about these reports, see “Standard graphical management reports” on page 164.
- Table 11 on page 102 lists event log report formats. For detailed information about these reports, see “Event log reports” on page 174.

Table 9: Standard tabular report formats (Part 1 of 3)

Standard Format	Explanation
ACD Call Duration	Identifies the duration of a call by measuring from the time the call is answered by the agent until the call is released by the agent.
ACD-DN Calls Abandoned	Identifies the total number of calls abandoned for each ACD-DN and the total abandon delay.
ACD-DN Calls Answered	Identifies the total number of calls answered for each ACD-DN and the total answer delay.
ACD Group by Agent Performance	Identifies agent activities for each group. This report indicates a problem with a particular agent or if all agents experience the same difficulties.
ACD Group by Agent Transfer	Identifies agent transfer activities for each group.
ACD Group by LOB Code	Identifies the number and duration of calls by LOB code for each group.
ACD Group by Walkaway Code	Identifies the walkaway codes associated with a specific ACD group.
ACD Group Overflow	For each source and destination ACD group pair, indicates the number of calls that either overflowed the queue (for example, due to exceeding maximum wait or queue size) or time overflowed from the source to the destination.
ACD Group Transfer-In	Identifies the number of calls transferred to a group.

Table 9: Standard tabular report formats (Part 2 of 3)

Standard Format	Explanation
ACD Group Transfer-Out	Identifies the number of calls transferred from a group.
Agent Summary	Provides detail regarding the types of calls received or made and the amount of time spent for each agent.
Agent by ACD Group Performance	Identifies the activities of all agents sorted by Agent ID through ACD group.
Agent by LOB Code	Identifies the activities of all agents sorted by LOB codes.
Agent by Subgroup Performance	Identifies the performance of each agent under different subgroups.
Delay Before Abandoning	Identifies how many calls were abandoned and how long the callers waited before they hung up.
Delay Before Answering	Provides information about the service callers receive.
LOB Code by ACD Group	Identifies call-processing time for each LOB code and breaks down information to show which ACD group received the calls associated with the LOB code.
LOB Code by Agent	Identifies call processing time for each LOB code and breaks down information to show the LOB codes associated with specific agents.
Summarized ACD-DN Call Analysis	Identifies the ACD-DNs and summarizes the associated call activity.

Table 9: Standard tabular report formats (Part 3 of 3)

Standard Format	Explanation
Summarized ACD Group Call Analysis	Provides an overall analysis of an ACD group. This report shows how calls were handled and the maximum and average delays and call durations.
Summarized ACD Group Performance	Identifies groups in the system and summarizes group load performance. This report shows the actual number of calls each group answered and the average time it took to handle each call.
Summarized ACD Group Transfer	Identifies the groups and summarizes transfer information for the groups.
Subgroup by Agent Performance	Provides supervisors with performance information for their agents.
Walkaway Code by ACD Group	Identifies the reason and the total time spent in walkaway state by an agent in a specific ACD group.
Walkaway by Agent ID	Identifies walkaway codes by agent IDs.

Table 10: Standard graphical reports formats

Standard Format	Explanation
ACD Group Calls Abandoned Graphic	For each ACD group, shows how many calls were abandoned before and after receiving a recorded announcement.
ACD Group Calls Answered Delay Graphic	For each ACD group, shows how many calls were answered before and after the delay objective.
ACD-DN Calls Abandoned Graphic	For each ACD-DN, shows how many calls were abandoned before and after receiving a recorded announcement.
ACD-DN Calls Answered Delay Graphic	For each ACD-DN, shows how many calls were answered before and after the delay objective.

Table 11: Standard event log report formats

Standard Format	Explanation
Agent All Login/Logout Report	Shows the time and length of each agent's logon and logoff activities during the day. You can use this report to verify shift and break times.
Agent Detail Report	Shows the time and length of each agent's logon, logoff, and walkaway activities during the day. You can use this report to verify shift times, break times, and walkaway times.
Agent First Login/Last Logout Report	Shows when an agent started and ended on that day, and how much time was spent in staffed status. It can be used as a summary for payroll and administration, and to show variations in the overall efficiency of individual agents.
Agent Trace Report	Shows the time and activity of each agent's calls during the day. This report can be used to verify agent activity and call handling.
Agent Walkaway Report	Shows the time and length of each agent's logon, logoff, and walkaway activities during the day. This report can be used to verify shift times, break times, and walkaway times.

Standard tabular management reports

This section describes the standard tabular management reports available in CC MIS. You can use these reports as they are or a supervisor can customize them.

The data in the report is based on statistics that are

- stored in the database, or
- computed based on data that is in the database

This data is maintained by interval (half-hour), day, week, or month. Reports can be based on interval, daily, weekly, or monthly time frames. Reports can also be generated on shift and period time frames, which are defined in the Time Frames Definition administration mode. The shift reports are generated using interval data; the period reports are generated using daily data. The data in each standard report is available for all time periods (except those restricted by the parameters specified in the database Storage Calculator).

Additionally, report parameters can be specified (using Report Parameter Definition) that limit the report to particular ACD groups or logical ACD groups.

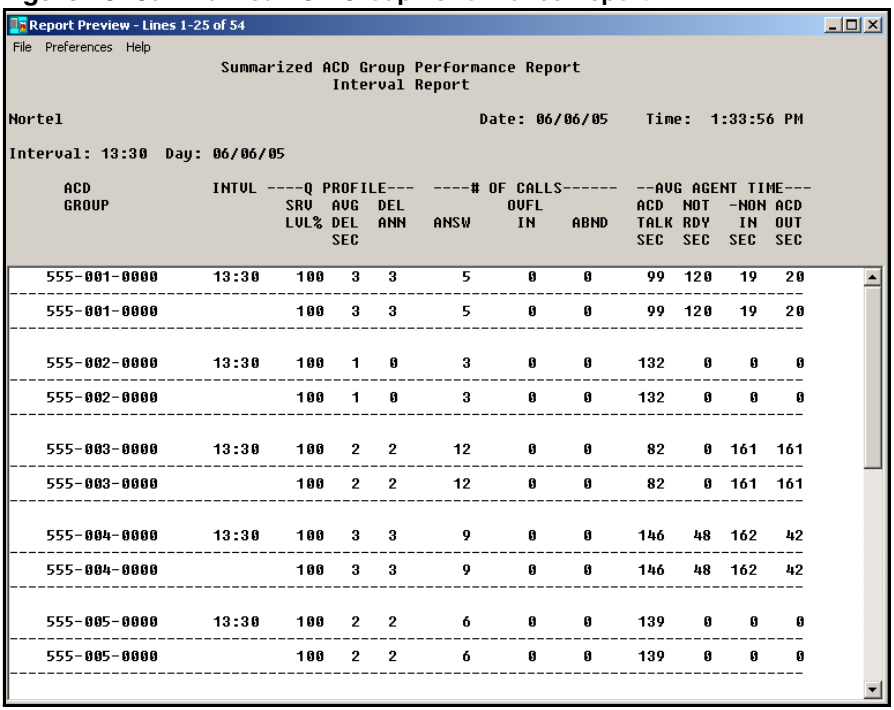
Summarized ACD Group Performance Report

The Summarized ACD Group Performance Report shows the groups in the ACD system and summarizes group load and performance. This report shows the actual number of calls each group answered and the average time required to handle each call.

You can use this report to determine current work schedules and to forecast the resources required to handle anticipated workloads.

The key field for the Summarized ACD Group Performance Report is ACD Group. Figure 18 shows a preview of an interval report.

Figure 18: Summarized ACD Group Performance Report



Report Preview - Lines 1-25 of 54

File Preferences Help

Summarized ACD Group Performance Report
Interval Report

Nortel Date: 06/06/05 Time: 1:33:56 PM

Interval: 13:30 Day: 06/06/05

ACD GROUP	INTVL	Q PROFILE SRV LVL%	AVG DEL SEC	DEL ANN	# OF CALLS ANSW	OVFL IN	ABND	AVG AGENT TIME ACD TALK SEC	NOT RDY SEC	NON IN SEC	ACD OUT SEC
555-001-0000	13:30	100	3	3	5	0	0	99	120	19	20
555-001-0000		100	3	3	5	0	0	99	120	19	20
555-002-0000	13:30	100	1	0	3	0	0	132	0	0	0
555-002-0000		100	1	0	3	0	0	132	0	0	0
555-003-0000	13:30	100	2	2	12	0	0	82	0	161	161
555-003-0000		100	2	2	12	0	0	82	0	161	161
555-004-0000	13:30	100	3	3	9	0	0	146	48	162	42
555-004-0000		100	3	3	9	0	0	146	48	162	42
555-005-0000	13:30	100	2	2	6	0	0	139	0	0	0
555-005-0000		100	2	2	6	0	0	139	0	0	0

This report shows each group specified from the Report Parameter Definition window. All selected intervals for the group are printed followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected group data for this report.

The fields in the Summarized ACD Group Performance Report are derived from the ACD Group (ACD-GRP) Statistics fields shown in Table 12.

Table 12: Summarized ACD Group Performance Report fields (Part 1 of 2)

Statistic	Description
Q PROFILE	
SRV LVL %	Telephone service level (SRV LVL %)
AVG DEL SEC	Average answering delay (AVG ANS DEL)
DEL ANN	Number of calls that received RAN (NUM RCV RAN)
# OF CALLS	
ANSW	Number of calls answered (CALLS ANSWD)
OVFL IN	Total number of calls which time overflowed (TOF CALLS ANS)
ABND	Number of calls abandoned (CALLS ABAND)
AVG AGENT TIME	
ACD TALK SEC	Average ACD talk time (AVG ACD TALK TIME)
NOT RDY SEC	Average post-call processing time (AVG NOT RDY TIME)

Table 12: Summarized ACD Group Performance Report fields (Part 2 of 2)

Statistic	Description
NON ACD	
IN SEC	Average incoming DN call time (AVG IN DN TIME)
OUT SEC	Average outgoing DN call time (AVG OUT DN TIME)

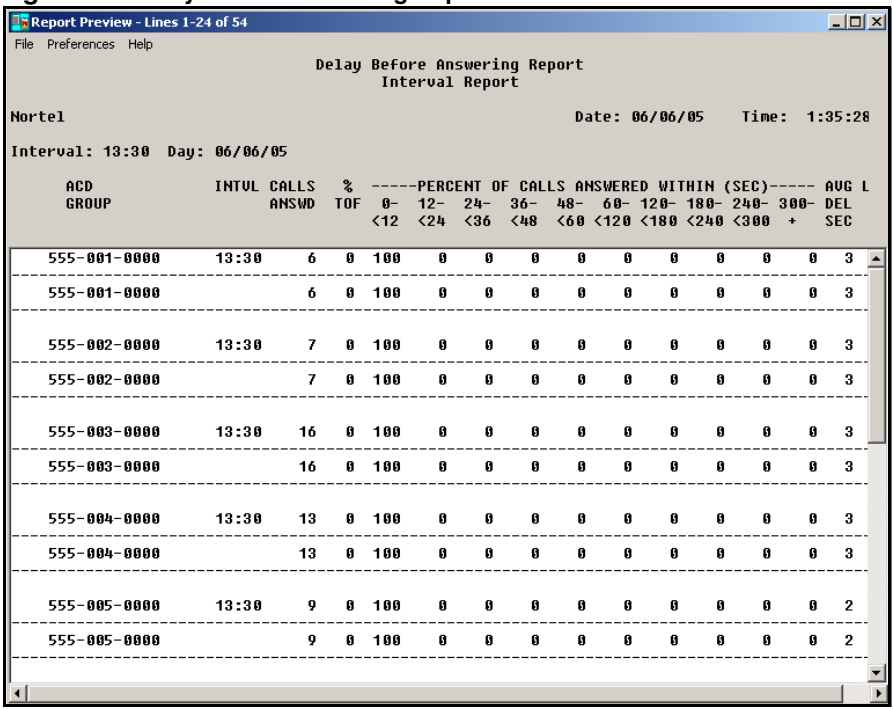
Delay Before Answering Report

The Delay Before Answering Report gives information about the service that callers receive. This report shows how rapidly calls are answered and the length of delays that callers experience.

The answering delays are divided into time categories. The time categories are collectively called a spectrum. Each category represents a range of time in which all delays that fall within the range are included in the category. The supervisor can specify the time ranges for up to 10 categories in the Spectrum Definition portion of Report Definition. Changing a spectrum affects any report that includes any of the Number answered in category N or Percentage answered in category N statistics. Also, changing a spectrum automatically changes custom headings to reflect the new ranges.

You can use this report to decide when recorded announcements and music play to encourage callers to wait. The report can also supplement other management reports to help decide if staff adjustments are needed or to forecast traffic patterns. The key field for the Delay Before Answering Report is ACD Group. Figure 19 on page 108 shows a monthly report.

Figure 19: Delay Before Answering Report



Report Preview - Lines 1-24 of 54

File Preferences Help

Delay Before Answering Report
Interval Report

Nortel Date: 06/06/05 Time: 1:35:28

Interval: 13:30 Day: 06/06/05

ACD GROUP	INTVL	CALLS ANSWD	% TOF	PERCENT OF CALLS ANSWERED WITHIN (SEC) 0- <12	12- <24	24- <36	36- <48	48- <60	60- <120	120- <180	180- <240	240- <300	300- +	AVG L DEL SEC
555-001-0000	13:30	6	0	100	0	0	0	0	0	0	0	0	0	3
555-001-0000		6	0	100	0	0	0	0	0	0	0	0	0	3
555-002-0000	13:30	7	0	100	0	0	0	0	0	0	0	0	0	3
555-002-0000		7	0	100	0	0	0	0	0	0	0	0	0	3
555-003-0000	13:30	16	0	100	0	0	0	0	0	0	0	0	0	3
555-003-0000		16	0	100	0	0	0	0	0	0	0	0	0	3
555-004-0000	13:30	13	0	100	0	0	0	0	0	0	0	0	0	3
555-004-0000		13	0	100	0	0	0	0	0	0	0	0	0	3
555-005-0000	13:30	9	0	100	0	0	0	0	0	0	0	0	0	2
555-005-0000		9	0	100	0	0	0	0	0	0	0	0	0	2

This report shows each group specified on the Report Parameter Definition screen. All selected intervals for the group are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected group data for this report.

The fields in the Delay Before Answering Report are derived from the ACD-GRP statistics fields and are shown in Table 13.

Table 13: Delay Before Answering Report fields

Statistic	Description
CALLS ANSWD	Number of calls answered (CALLS ANSWD)
% TOF	Percentage of calls that time overflowed in (TOF ANS %)
PERCENT OF CALLS ANSWERED WITHIN (SEC)	
t1-<t2	Percentage answered in category n (ANSW % CATn)
AVG DEL SEC	Average answering delay (AVG ANS DEL)
LONG DEL SEC	Maximum answering delay (MAX ANS DEL)

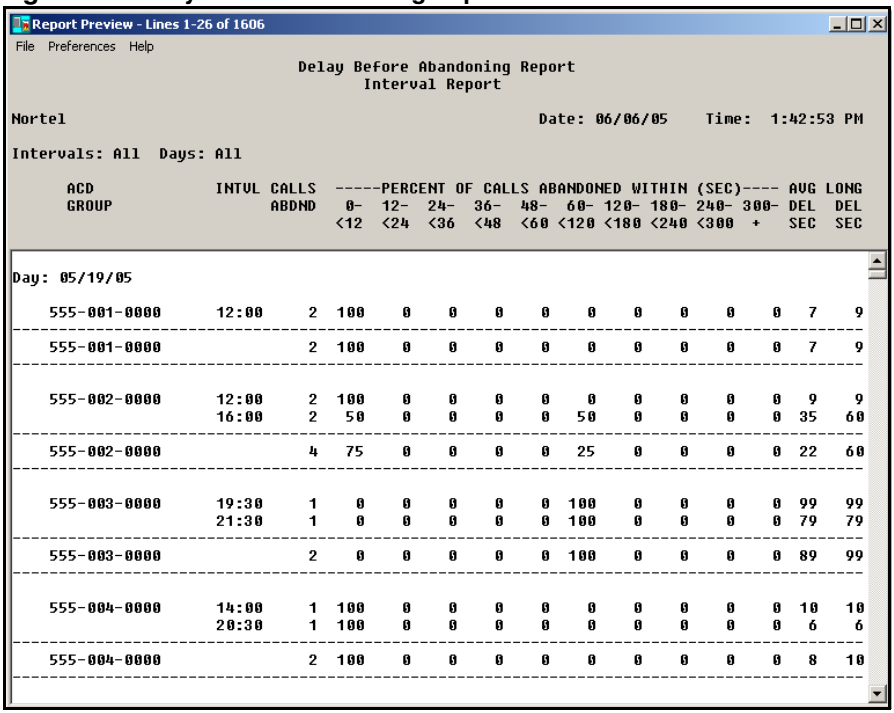
Delay Before Abandoning Report

The Delay Before Abandoning Report is similar in format to the Delay Before Answering Report. This report shows the tolerance level of the callers. It shows how many calls were abandoned and the length of time that callers waited before they hung up.

The abandoning delays are divided into time categories. The time categories are collectively called a spectrum. Each category represents a range of time in which all delays that fall within the range are included in the category. The supervisor can specify the time ranges for up to 10 categories in the Spectrum Definition portion of Report Definition. Changing a spectrum affects any report that includes any of the Number abandoned in category N or Percentage abandoned in category N statistics. Also, changing a spectrum automatically changes custom headings to reflect the new ranges.

The key field for the Delay Before Abandoning Report is ACD Group. An interval report for several groups appears in Figure 20 on page 111.

Figure 20: Delay Before Abandoning Report



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Delay Before Abandoning Report
Interval Report

Nortel Date: 06/06/05 Time: 1:42:53 PM

Intervals: All Days: All

ACD GROUP	INTVL	CALLS ABDND	PERCENT OF CALLS ABANDONED WITHIN (SEC) 0- <12	12- <24	24- <36	36- <48	48- <60	60- <120	120- <180	180- <240	240- <300	300- +	AVG DEL SEC	LONG DEL SEC
Day: 05/19/05														
555-001-0000	12:00	2	100	0	0	0	0	0	0	0	0	0	7	9
555-001-0000		2	100	0	0	0	0	0	0	0	0	0	7	9
555-002-0000	12:00	2	100	0	0	0	0	0	0	0	0	0	9	9
	16:00	2	50	0	0	0	0	50	0	0	0	0	35	60
555-002-0000		4	75	0	0	0	0	25	0	0	0	0	22	60
555-003-0000	19:30	1	0	0	0	0	0	100	0	0	0	0	99	99
	21:30	1	0	0	0	0	0	100	0	0	0	0	79	79
555-003-0000		2	0	0	0	0	0	100	0	0	0	0	89	99
555-004-0000	14:00	1	100	0	0	0	0	0	0	0	0	0	10	10
	20:30	1	100	0	0	0	0	0	0	0	0	0	6	6
555-004-0000		2	100	0	0	0	0	0	0	0	0	0	8	10

This report shows each group specified on the Report Parameter Definition screen. All selected intervals for the group are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected group data for this report.

The fields in the Delay Before Abandoning Report are derived from the ACD-GRP statistics fields shown in Table 14.

Table 14: Delay Before Abandoning Report

Statistic	Description
CALLS ABAND	Number of calls abandoned (CALLS ABAND)
% TOF	Percentage of calls that time overflowed in (TOF ANS %)
PERCENT OF CALLS ABANDONED WITHIN (SEC)	
t1-<t2	Percentage abandoned in category N (ABND % CATn)
AVG DEL SEC	Average abandoning delay (AVG ABD DEL)
LONG DEL SEC	Maximum abandoning delay (MAX ABD DEL)

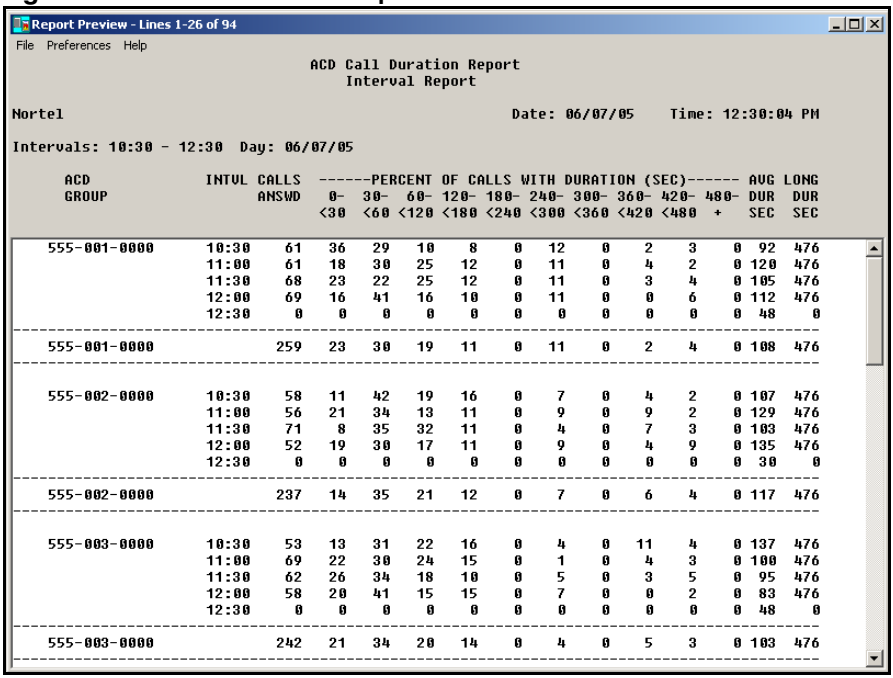
ACD Call Duration Report

The ACD Call Duration Report gives information about the amount of time that is required to handle an ACD call. The duration of a call starts when the agent answers the call and ends when the agent releases the call. Thus, this duration can include periods in which the call was placed on hold and the agent performed other activities. The duration does not include the amount of time that another agent may have processed the same call in the case where the call is transferred between agents. Each portion of the transferred call is treated as a separate call for this report.

The call durations are divided into time categories. The time categories are collectively called a spectrum. Each category represents a range of time in which all durations that fall within the range are included in the category. The supervisor can specify the time ranges for up to 10 categories in the Spectrum Definition portion of Report Definition. Changing a spectrum affects any report that includes any of the Number duration in category N or Percentage duration in category N statistics. Also, changing a spectrum automatically changes custom headings to reflect the new ranges.

The key field for the ACD Call Duration Report is ACD Group. Figure 21 on page 114 shows an Interval Report for several groups.

Figure 21: ACD Call Duration Report



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ACD Call Duration Report
Interval Report

Nortel Date: 06/07/05 Time: 12:30:04 PM

Intervals: 10:30 - 12:30 Day: 06/07/05

ACD GROUP	INTVL	CALLS ANSWD	PERCENT OF CALLS WITH DURATION (SEC) 0- <30	30- <60	60- <120	120- <180	180- <240	240- <300	300- <360	360- <420	420- <480	480- +	AVG DUR SEC	LONG DUR SEC
555-001-0000	10:30	61	36	29	10	8	0	12	0	2	3	0	92	476
	11:00	61	18	30	25	12	0	11	0	4	2	0	120	476
	11:30	68	23	22	25	12	0	11	0	3	4	0	105	476
	12:00	69	16	41	16	10	0	11	0	0	6	0	112	476
	12:30	0	0	0	0	0	0	0	0	0	0	0	48	0
555-001-0000		259	23	30	19	11	0	11	0	2	4	0	108	476
555-002-0000	10:30	58	11	42	19	16	0	7	0	4	2	0	107	476
	11:00	56	21	34	13	11	0	9	0	9	2	0	129	476
	11:30	71	8	35	32	11	0	4	0	7	3	0	103	476
	12:00	52	19	30	17	11	0	9	0	4	9	0	135	476
	12:30	0	0	0	0	0	0	0	0	0	0	0	30	0
555-002-0000		237	14	35	21	12	0	7	0	6	4	0	117	476
555-003-0000	10:30	53	13	31	22	16	0	4	0	11	4	0	137	476
	11:00	69	22	30	24	15	0	1	0	4	3	0	100	476
	11:30	62	26	34	18	10	0	5	0	3	5	0	95	476
	12:00	58	20	41	15	15	0	7	0	0	2	0	83	476
	12:30	0	0	0	0	0	0	0	0	0	0	0	48	0
555-003-0000		242	21	34	20	14	0	4	0	5	3	0	103	476

This report shows each group specified on the Report Parameter Definition screen. All selected intervals for the group are printed followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected group data for this report.

The fields in the ACD Call Duration Report are derived from the following ACD-GRP statistics fields and are shown in Table 15.

Table 15: ACD Call Duration Report fields

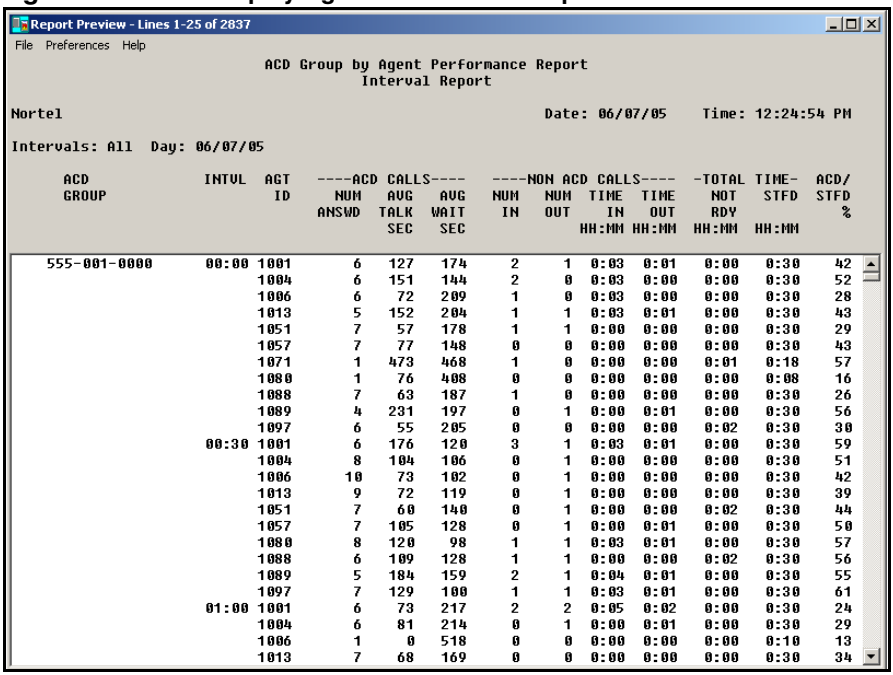
Statistic	Description
CALLS ANSWD	Number of calls answered (CALLS ANSWD)
PERCENT OF CALLS WITH DURATION (SEC)	
t1-<t2	Percentage duration in category N (DUR % CATn)
AVG DUR SEC	Average ACD talk time (AVG ACD TALK TIME)
LONG DUR SEC	Maximum call duration (MAX CALL DUR)

ACD Group by Agent Performance Report

The ACD Group by Agent Performance Report shows the agent activities for each group. This report indicates a problem with a particular agent or if all agents experience the same difficulties.

The key fields for the ACD Group by Agent Performance Report are ACD GROUP and Agent ID. Figure 22 shows an Interval Report for several groups.

Figure 22: ACD Group by Agent Performance Report



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ACD Group by Agent Performance Report
Interval Report

Nortel Date: 06/07/05 Time: 12:24:54 PM

Intervals: All Day: 06/07/05

ACD GROUP	INTVL	AGT ID	ACD CALLS NUM ANSWD	ACD CALLS AVG TALK SEC	ACD CALLS AVG WAIT SEC	NON ACD CALLS NUM IN	NON ACD CALLS NUM OUT	NON ACD CALLS TIME IN HH:MM	NON ACD CALLS TIME OUT HH:MM	TOTAL NOT RDY HH:MM	TIME- STFD HH:MM	ACD/ STFD %
555-001-0000	00:00	1001	6	127	174	2	1	0:03	0:01	0:00	0:30	42
		1004	6	151	144	2	0	0:03	0:00	0:00	0:30	52
		1006	6	72	209	1	0	0:03	0:00	0:00	0:30	28
		1013	5	152	204	1	1	0:03	0:01	0:00	0:30	43
		1051	7	57	178	1	1	0:00	0:00	0:00	0:30	29
		1057	7	77	148	0	0	0:00	0:00	0:00	0:30	43
		1071	1	473	468	1	0	0:00	0:00	0:01	0:18	57
		1080	1	76	408	0	0	0:00	0:00	0:00	0:08	16
		1088	7	63	187	1	0	0:00	0:00	0:00	0:30	26
		1089	4	231	197	0	1	0:00	0:01	0:00	0:30	56
		1097	6	55	205	0	0	0:00	0:00	0:02	0:30	30
	00:30	1001	6	176	120	3	1	0:03	0:01	0:00	0:30	59
		1004	8	104	106	0	1	0:00	0:00	0:00	0:30	51
		1006	10	73	102	0	1	0:00	0:00	0:00	0:30	42
		1013	9	72	119	0	1	0:00	0:00	0:00	0:30	39
		1051	7	60	140	0	1	0:00	0:00	0:02	0:30	44
		1057	7	105	128	0	1	0:00	0:01	0:00	0:30	50
		1080	8	120	98	1	1	0:03	0:01	0:00	0:30	57
		1088	6	109	128	1	1	0:00	0:00	0:02	0:30	56
		1089	5	184	159	2	1	0:04	0:01	0:00	0:30	55
		1097	7	129	100	1	1	0:03	0:01	0:00	0:30	61
	01:00	1001	6	73	217	2	2	0:05	0:02	0:00	0:30	24
		1004	6	81	214	0	1	0:00	0:01	0:00	0:30	29
		1006	1	0	518	0	0	0:00	0:00	0:00	0:10	13
		1013	7	68	169	0	0	0:00	0:00	0:00	0:30	34

This report shows each group specified on the Report Parameter Definition screen. All intervals for the group are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all group data for this report.

The fields in the ACD Group by Agent Performance Report are derived from the following agent statistics fields.

Table 16: ACD Group by Agent Performance Report fields

Statistic	Description
ACD CALLS	
NUM ANSWD	Number of calls answered (CALLS ANSWD)
AVG TALK SEC	Average ACD talk time (AVG ACD TALK TIME)
AVG WAIT SEC	Average time spent waiting for calls (AVG WAIT TIME)
NON ACD CALLS	
NUM IN	Number of incoming DN calls (IN DN CALLS)
NUM OUT	Number of outgoing DN calls (OUT DN CALLS)
TIME IN	Total incoming DN call time (TOTAL IN DN TIME)
TIME OUT	Total outgoing DN call time (TOTAL OUT DN TIME)
TOTAL TIME	
NOT RDY	Total Not Ready time (TOTAL NOT READY TIME)
STFD	Total staffed time of agent (TOTAL STFD TIME)
ACD STFD %	Percentage of staffed time worked (WORK STFD %)

Beginning with CC MIS Release 5.2, the ACD Group by Agent Performance Report is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 22 on page 116, but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

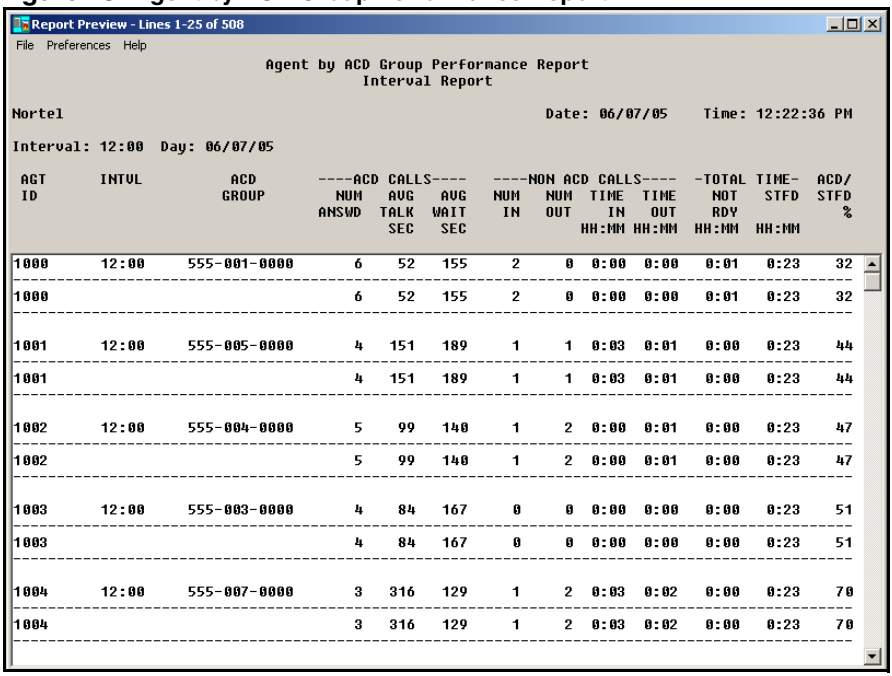
For sample reports showing the impact of these options, see “Agent Summary Report” on page 160.

Agent by ACD Group Performance Report

The Agent by ACD Group Performance Report shows the activities of all agents in the ACD system.

The key fields for the Agent by ACD Group Performance Report are ACD GROUP and Agent ID. Figure 23 shows an Interval Report for several agents.

Figure 23: Agent by ACD Group Performance Report



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Agent by ACD Group Performance Report
Interval Report

Nortel Date: 06/07/05 Time: 12:22:36 PM

Interval: 12:00 Day: 06/07/05

AGT ID	INTVL	ACD GROUP	----ACD CALLS---- NUM ANSWD	AVG TALK SEC	AVG WAIT SEC	----NON ACD CALLS---- NUM IN	NUM OUT	TIME IN HH:MM	TIME OUT HH:MM	-TOTAL TIME- NOT RDY HH:MM	STFD HH:MM	ACD/ STFD %
1000	12:00	555-001-0000	6	52	155	2	0	0:00	0:00	0:01	0:23	32
1000			6	52	155	2	0	0:00	0:00	0:01	0:23	32
1001	12:00	555-005-0000	4	151	189	1	1	0:03	0:01	0:00	0:23	44
1001			4	151	189	1	1	0:03	0:01	0:00	0:23	44
1002	12:00	555-004-0000	5	99	140	1	2	0:00	0:01	0:00	0:23	47
1002			5	99	140	1	2	0:00	0:01	0:00	0:23	47
1003	12:00	555-003-0000	4	84	167	0	0	0:00	0:00	0:00	0:23	51
1003			4	84	167	0	0	0:00	0:00	0:00	0:23	51
1004	12:00	555-007-0000	3	316	129	1	2	0:03	0:02	0:00	0:23	70
1004			3	316	129	1	2	0:03	0:02	0:00	0:23	70

This report shows each agent specified on the Report Parameter Definition screen. All selected intervals for the agent are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected agent data for this report.

The fields in the Agent by ACD Group Performance Report are derived from the agent statistics fields and are shown in Table 17.

Table 17: Agent by ACD Group Performance Report fields

Statistic	Description
ACD CALLS	
NUM ANSWD	Number of calls answered (CALLS ANSWD)
AVG TALK SEC	Average ACD talk time (AVG ACD TALK TIME)
AVG WAIT SEC	Average time spent waiting for calls (AVG WAIT TIME)
NON ACD CALLS	
NUM IN	Number of incoming DN calls (IN DN CALLS)
NUM OUT	Number of outgoing DN calls (OUT DN CALLS)
TIME IN	Total incoming DN call time (TOTAL IN DN TIME)
TIME OUT	Total outgoing DN call time (TOTAL OUT DN TIME)
TOTAL TIME	
NOT RDY	Total Not Ready time (TOTAL NOT READY TIME)
STFD	Total staffed time of agent (TOTAL STFD TIME)
ACD STFD %	Percentage of staffed time worked (WORK STFD %)

Beginning with CC MIS Release 5.2, the Agent by ACD Group Performance Report is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 23 on page 119, but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

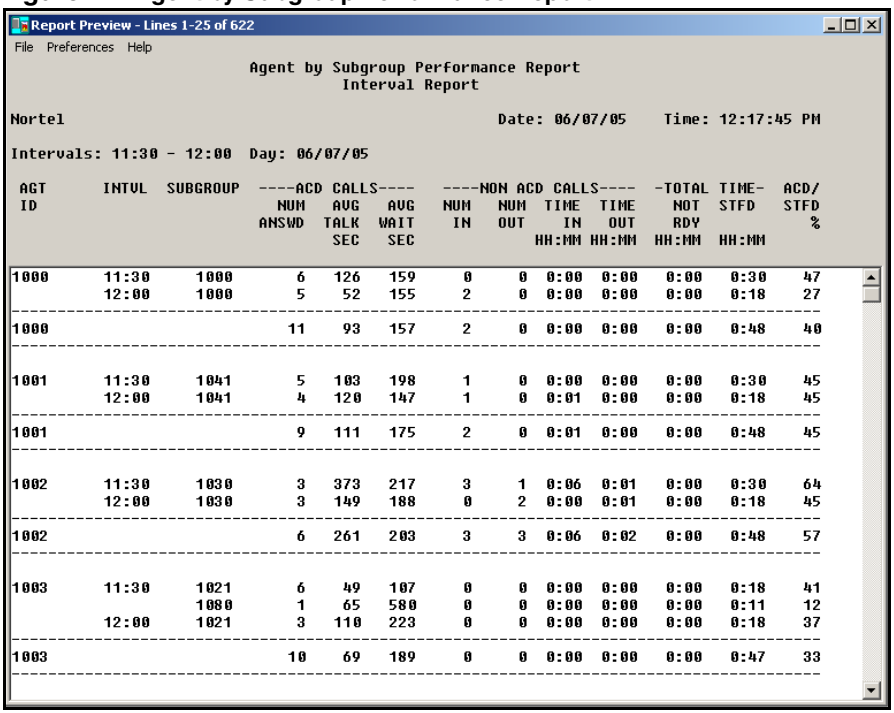
For sample reports showing the impact of these options, see “Agent Summary Report” on page 160.

Agent by Subgroup Performance Report

The Agent by Subgroup Performance Report shows the performance of each agent under different supervisors (see Figure 24).

The key fields for this report are Agent ID and Supervisor ID.

Figure 24: Agent by Subgroup Performance Report



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Agent by Subgroup Performance Report
Interval Report

Nortel Date: 06/07/05 Time: 12:17:45 PM

Intervals: 11:30 - 12:00 Day: 06/07/05

AGT ID	INTVL	SUBGROUP	ACD CALLS NUM ANSWD	ACD CALLS AVG TALK SEC	ACD CALLS AVG WAIT SEC	NON ACD CALLS NUM IN	NON ACD CALLS NUM OUT	NON ACD CALLS TIME IN HH:MM	NON ACD CALLS TIME OUT HH:MM	TOTAL TIME- NOT RDY HH:MM	TOTAL TIME- STFD HH:MM	ACD/ STFD %
1000	11:30	1000	6	126	159	0	0	0:00	0:00	0:00	0:30	47
	12:00	1000	5	52	155	2	0	0:00	0:00	0:00	0:18	27
1000			11	93	157	2	0	0:00	0:00	0:00	0:48	40
1001	11:30	1041	5	103	198	1	0	0:00	0:00	0:00	0:30	45
	12:00	1041	4	120	147	1	0	0:01	0:00	0:00	0:18	45
1001			9	111	175	2	0	0:01	0:00	0:00	0:48	45
1002	11:30	1030	3	373	217	3	1	0:06	0:01	0:00	0:30	64
	12:00	1030	3	149	188	0	2	0:00	0:01	0:00	0:18	45
1002			6	261	203	3	3	0:06	0:02	0:00	0:48	57
1003	11:30	1021	6	49	107	0	0	0:00	0:00	0:00	0:18	41
		1080	1	65	580	0	0	0:00	0:00	0:00	0:11	12
	12:00	1021	3	110	223	0	0	0:00	0:00	0:00	0:18	37
1003			10	69	189	0	0	0:00	0:00	0:00	0:47	33

This report shows each agent specified on the Report Parameter Definition screen. All intervals for the agent are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all agent data for this report.

The fields in the Agent by Subgroup Performance Report are derived from the agent statistics fields and are described in Table 18.

Table 18: Agent by Subgroup Performance Report fields

Statistic	Description
ACD CALLS	
NUM ANSWD	Number of calls answered (CALLS ANSWD)
AVG TALK SEC	Average ACD talk time (AVG ACD TALK TIME)
AVG WAIT SEC	Average time spent waiting for calls (AVG WAIT TIME)
NON ACD CALLS	
NUM IN	Number of incoming DN calls (IN DN CALLS)
NUMOUT	Number of outgoing DN calls (OUT DN CALLS)
TIME IN	Total incoming DN call time (TOTAL IN DN TIME)
TIME OUT	Total outgoing DN call time (TOTAL OUT DN TIME)
TOTAL TIME	
NOT RDY	Total Not Ready time (TOTAL NOT READY TIME)
STFD	Total staffed time of agent (TOTAL STFD TIME)
ACD STFD %	Percentage of staffed time worked (WORK STFD %)

Beginning with CC MIS Release 5.2, the Agent by Subgroup Performance Report is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 24 on page 122, but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

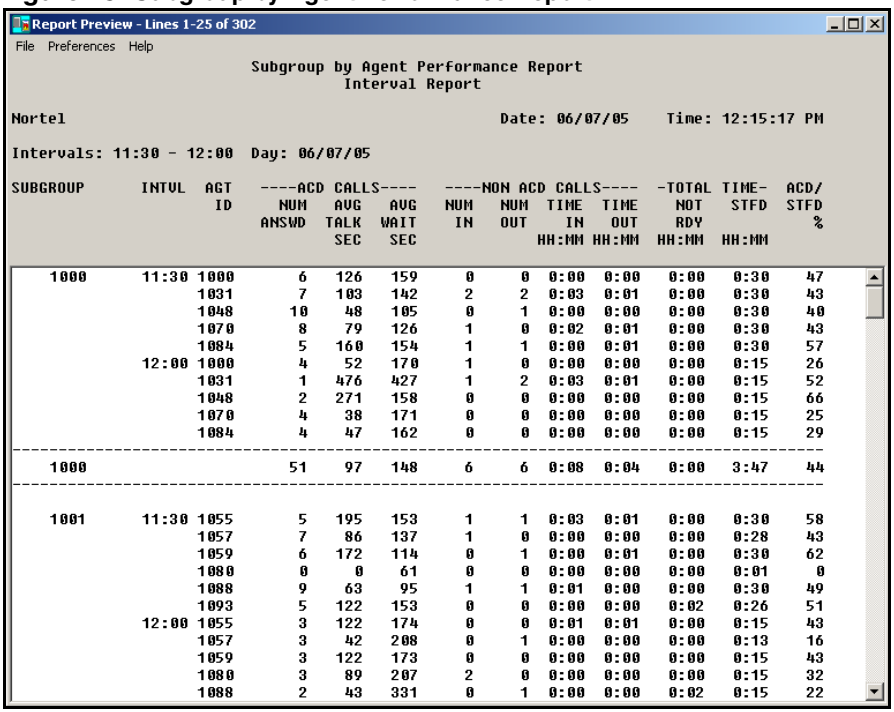
For sample reports showing the impact of these options, see “Agent Summary Report” on page 160.

Subgroup by Agent Performance Report

The Subgroup by Agent Performance Report shows the performance of each agent under different supervisors (see Figure 25).

The key fields for this report are Subgroup and Agent ID.

Figure 25: Subgroup by Agent Performance Report



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Subgroup by Agent Performance Report
Interval Report

Nortel Date: 06/07/05 Time: 12:15:17 PM

Intervals: 11:30 - 12:00 Day: 06/07/05

SUBGROUP	INTVL	AGT ID	ACD CALLS NUM ANSWD	ACD CALLS AVG TALK SEC	ACD CALLS AVG WAIT SEC	NON ACD CALLS NUM IN	NON ACD CALLS NUM OUT	NON ACD CALLS TIME IN HH:MM	NON ACD CALLS TIME OUT HH:MM	TOTAL TIME- NOT RDY HH:MM	TOTAL TIME- STFD HH:MM	ACD/ STFD %
1000	11:30	1000	6	126	159	0	0	0:00	0:00	0:00	0:30	47
		1031	7	103	142	2	2	0:03	0:01	0:00	0:30	43
		1048	10	48	105	0	1	0:00	0:00	0:00	0:30	40
		1070	8	79	126	1	0	0:02	0:01	0:00	0:30	43
		1084	5	160	154	1	1	0:00	0:01	0:00	0:30	57
	12:00	1000	4	52	170	1	0	0:00	0:00	0:00	0:15	26
		1031	1	476	427	1	2	0:03	0:01	0:00	0:15	52
		1048	2	271	158	0	0	0:00	0:00	0:00	0:15	66
		1070	4	38	171	0	0	0:00	0:00	0:00	0:15	25
		1084	4	47	162	0	0	0:00	0:00	0:00	0:15	29
1000			51	97	148	6	6	0:08	0:04	0:00	3:47	44
1001	11:30	1055	5	195	153	1	1	0:03	0:01	0:00	0:30	58
		1057	7	86	137	1	0	0:00	0:00	0:00	0:28	43
		1059	6	172	114	0	1	0:00	0:01	0:00	0:30	62
		1080	0	0	61	0	0	0:00	0:00	0:00	0:01	0
		1088	9	63	95	1	1	0:01	0:00	0:00	0:30	49
		1093	5	122	153	0	0	0:00	0:00	0:02	0:26	51
	12:00	1055	3	122	174	0	0	0:01	0:01	0:00	0:15	43
		1057	3	42	208	0	1	0:00	0:00	0:00	0:13	16
		1059	3	122	173	0	0	0:00	0:00	0:00	0:15	43
		1080	3	89	207	2	0	0:00	0:00	0:00	0:15	32
		1088	2	43	331	0	1	0:00	0:00	0:02	0:15	22

This report shows each agent specified on the Report Parameter Definition screen. All intervals for the agent are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all agent data for this report.

The fields in the Subgroup by Agent Performance Report are derived from the agent statistics fields and are described in Table 19.

Table 19: Subgroup by Agent Performance Report fields

Statistic	Description
ACD CALLS	
NUM ANSWD	Number of calls answered (CALLS ANSWD)
AVG TALK SEC	Average ACD talk time (AVG ACD TALK TIME)
AVG WAIT SEC	Average time spent waiting for calls (AVG WAIT TIME)
NON ACD CALLS	
NUM IN	Number of incoming DN calls (IN DN CALLS)
NUMOUT	Number of outgoing DN calls (OUT DN CALLS)
TIME IN	Total incoming DN call time (TOTAL IN DN TIME)
TIME OUT	Total outgoing DN call time (TOTAL OUT DN TIME)
TOTAL TIME	
NOT RDY	Total Not Ready time (TOTAL NOT READY TIME)
STFD	Total staffed time of agent (TOTAL STFD TIME)
ACD STFD %	Percentage of staffed time worked (WORK STFD %)

Beginning with CC MIS Release 5.2, the Subgroup by Agent Performance Report is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 25 on page 125, but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

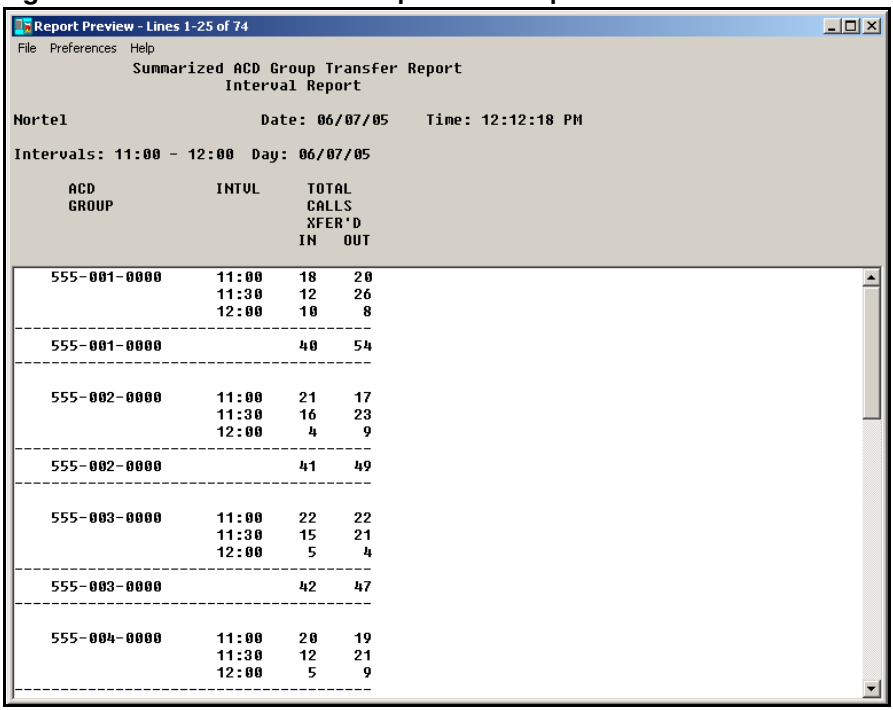
For sample reports showing the impact of these options, see “Agent Summary Report” on page 160.

Summarized ACD Group Transfer Report

The Summarized ACD Group Transfer Report shows the groups in the ACD system and summarizes transfer information for the groups. It shows the actual number of calls that each group transferred and the number of transferred calls the group answered.

The key field for the Summarized ACD Group Transfer Report is ACD GROUP. Figure 26 shows an Interval Report.

Figure 26: Summarized ACD Group Transfer Report



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Summarized ACD Group Transfer Report
Interval Report

Nortel Date: 06/07/05 Time: 12:12:18 PM

Intervals: 11:00 - 12:00 Day: 06/07/05

ACD GROUP	INTVL	TOTAL CALLS XFER'D IN	OUT
555-001-0000	11:00	18	20
	11:30	12	26
	12:00	10	8
555-001-0000		40	54
555-002-0000	11:00	21	17
	11:30	16	23
	12:00	4	9
555-002-0000		41	49
555-003-0000	11:00	22	22
	11:30	15	21
	12:00	5	4
555-003-0000		42	47
555-004-0000	11:00	20	19
	11:30	12	21
	12:00	5	9

This report shows each group specified on the Report Parameter Definition screen. All selected intervals for the group are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected group data for this report.

The fields in the Summarized ACD Group Transfer Report are derived from the ACD-GRP statistics fields listed in Table 20.

Table 20: Summarized ACD Group Transfer Report fields

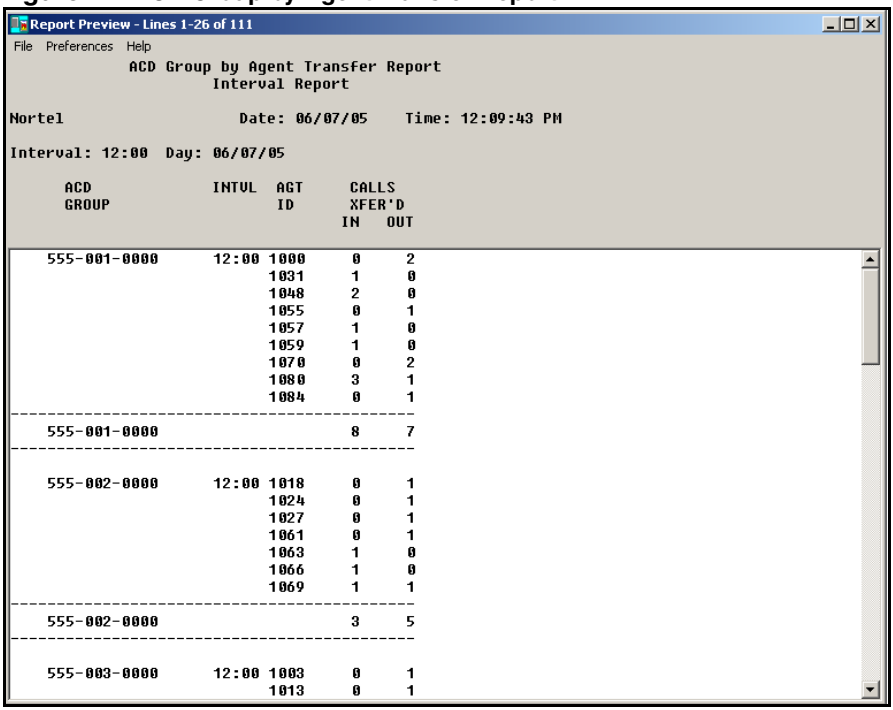
Statistic	Description
TOTAL CALLS XFER'D	
IN	Number of calls transferred in (TOTAL XFER IN)
OUT	Number of calls transferred out (TOTAL XFER OUT)

ACD Group by Agent Transfer Report

The ACD Group by Agent Transfer Report shows the agent transfer activities for each group.

The key fields for the ACD Group by Agent Transfer Report are ACD GROUP and Agent ID. Figure 27 shows an interval report for several groups.

Figure 27: ACD Group by Agent Transfer Report



This report shows each group specified on the Report Parameter Definition screen. All intervals for the group are printed and followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected group data for this report.

The fields in the ACD Group by Agent Transfer Report are derived from the agent statistics fields listed in Table 21.

Table 21: ACD Group by Agent Transfer Report fields

Statistic	Description
CALLS XFER'D	
IN	Number of calls transferred in (XFER IN)
OUT	Number of calls transferred out (XFER OUT)

Beginning with CC MIS Release 5.2, the ACD Group by Agent Transfer Report is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 27 on page 130, but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

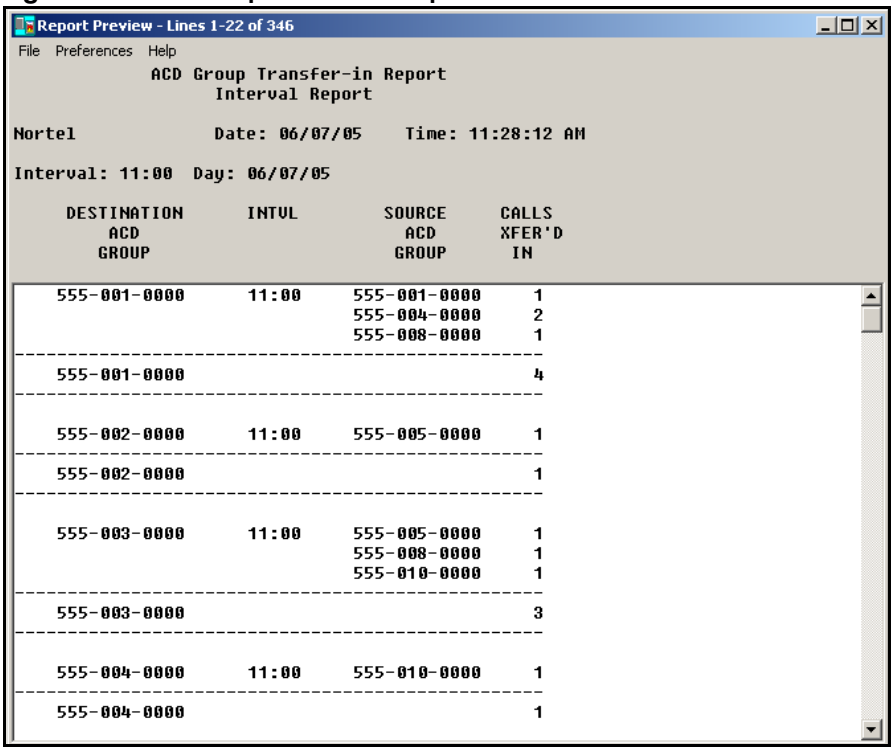
For sample reports showing the impact of these options, see "Agent Summary Report" on page 160.

ACD Group Transfer-in Report

The ACD Group Transfer-in Report shows the number of calls transferred into a group. The source group is identified.

The key fields for this report are the Source ACD Group and the Destination ACD Group. Figure 28 shows an interval report for several groups.

Figure 28: ACD Group Transfer-in Report



This report shows each destination group specified on the Report Parameter Definition screen. All selected intervals and source groups are printed and followed by a total line, which summarizes all the intervals for the destination groups. At the bottom of the report is a grand-total line, which summarizes all data for this report.

The fields in the ACD Group Transfer-in Report are derived from the overflow statistics fields listed in Table 22.

Table 22: ACD Group Transfer-in Report field

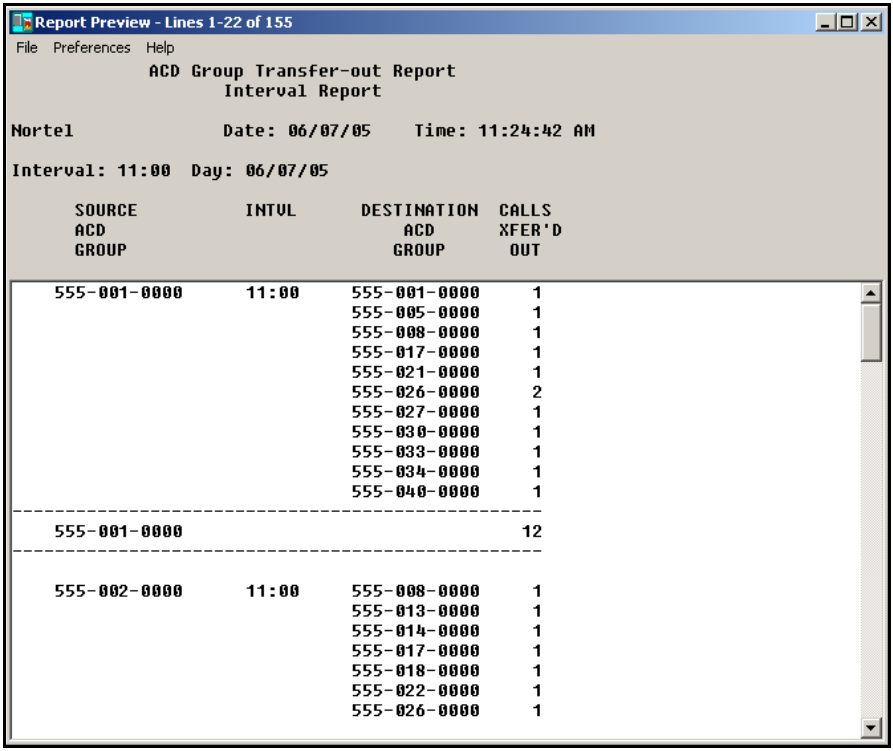
Statistic	Description
CALLS XFER'D IN	Calls transferred (CALLS XFERD)

ACD Group Transfer-out Report

The ACD Group Transfer-out Report shows the number of calls transferred from a group. The destination group is identified to help determine the transferred call types.

The key fields for this report are the Source ACD Group and the Destination ACD Group. Figure 29 shows an interval report for several groups.

Figure 29: ACD Group Transfer-out Report



This report shows each destination group specified on the Report Parameter Definition screen. All selected intervals and source groups are printed followed by a total line, which totals all the intervals for the source groups. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the ACD Group Transfer-out Report are derived from the overflow statistics field listed in Table 23.

Table 23: ACD Group Transfer-out Report field

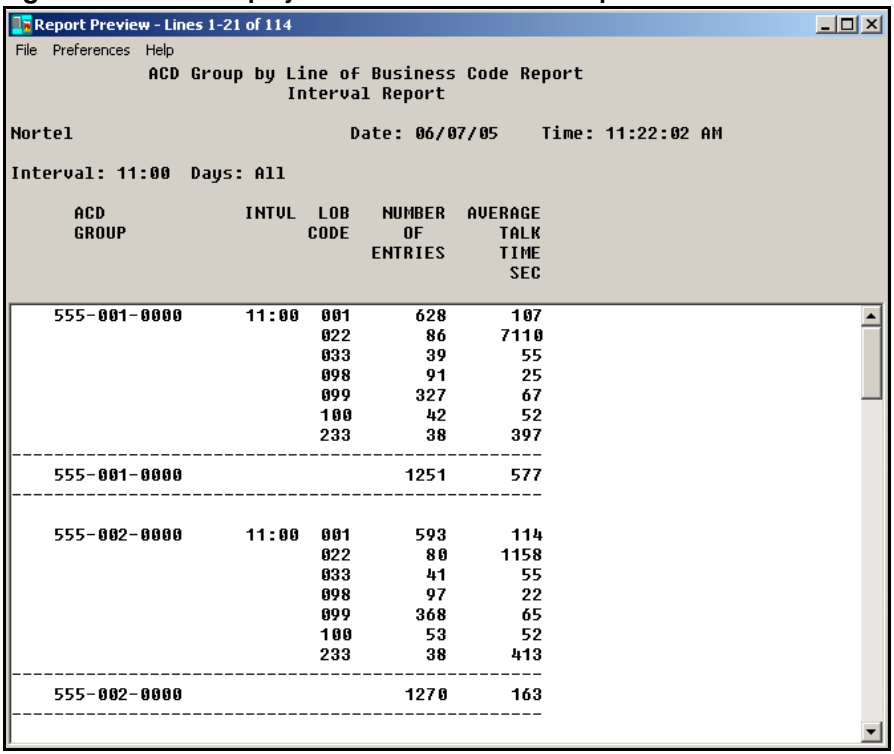
Statistic	Description
CALLS XFER'D OUT	Calls transferred (CALLS XFERD)

ACD Group by Line of Business Code Report

The ACD Group by Line of Business Code Report shows the number and duration of calls by line-of-business (LOB) code for each group.

The key fields for this report are the ACD Group and the LOB code. Figure 30 shows an interval report for several groups.

Figure 30: ACD Group by Line of Business Code Report



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ACD Group by Line of Business Code Report
Interval Report

Nortel Date: 06/07/05 Time: 11:22:02 AM

Interval: 11:00 Days: All

ACD GROUP	INTVL	LOB CODE	NUMBER OF ENTRIES	AVERAGE TALK TIME SEC
555-001-0000	11:00	001	628	107
		022	86	7110
		033	39	55
		098	91	25
		099	327	67
		100	42	52
		233	38	397
555-001-0000			1251	577
555-002-0000	11:00	001	593	114
		022	80	1158
		033	41	55
		098	97	22
		099	368	65
		100	53	52
		233	38	413
555-002-0000			1270	163

This report shows each destination group specified on the Report Parameter Definition screen. All selected intervals and groups are printed followed by a total line, which totals all the intervals for the groups. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the ACD Group by Line of Business Code Report are derived from the LOB statistics fields listed in Table 24.

Table 24: ACD Group by Line of Business Code Report fields

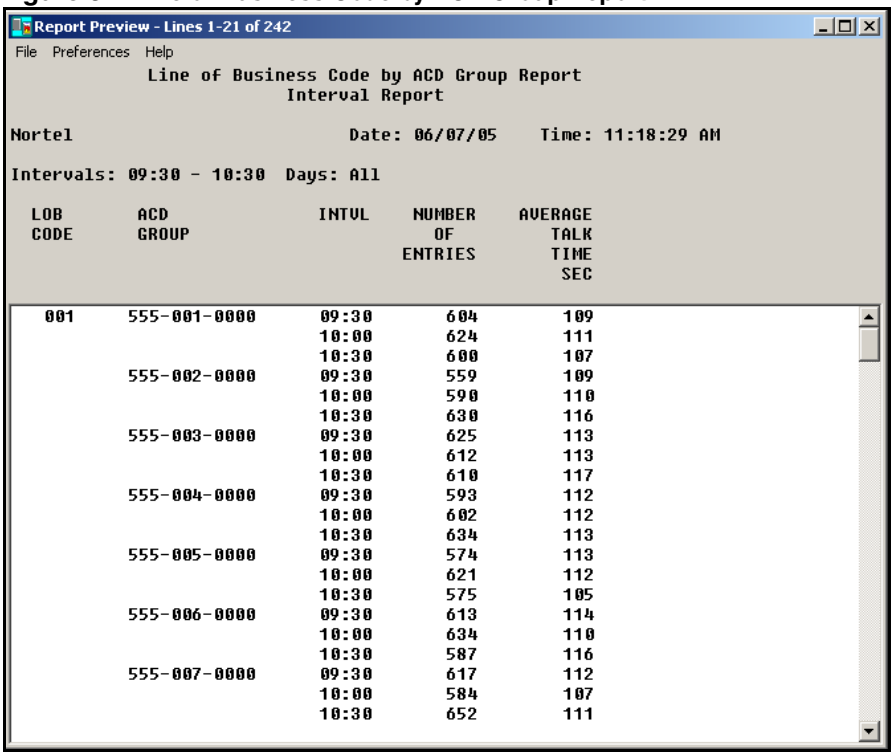
Statistic	Description
NUMBER OF ENTRIES	Number of LOB occurrences (NUM ENTRIES)
AVERAGE TALK TIME	Average duration of an LOB period (AVG TIME)

Line of Business Code by ACD Group Report

The Line of Business Code by ACD Group Report shows call processing time for each LOB code. Call processing time is further broken down by the ACD Groups that receive the calls associated with the LOB codes.

The key fields for this report are the LOB code and the Destination ACD Group. Figure 31 shows an interval report for several LOB codes.

Figure 31: Line of Business Code by ACD Group Report



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File Preferences Help

Line of Business Code by ACD Group Report
Interval Report

Nortel Date: 06/07/05 Time: 11:18:29 AM

Intervals: 09:30 - 10:30 Days: All

LOB CODE	ACD GROUP	INTVL	NUMBER OF ENTRIES	AVERAGE TALK TIME SEC
001	555-001-0000	09:30	604	109
		10:00	624	111
		10:30	600	107
	555-002-0000	09:30	559	109
		10:00	590	110
		10:30	630	116
	555-003-0000	09:30	625	113
		10:00	612	113
		10:30	610	117
	555-004-0000	09:30	593	112
		10:00	602	112
		10:30	634	113
	555-005-0000	09:30	574	113
		10:00	621	112
		10:30	575	105
	555-006-0000	09:30	613	114
		10:00	634	110
		10:30	587	116
	555-007-0000	09:30	617	112
		10:00	584	107
		10:30	652	111

This report shows each destination group specified on the Report Parameter Definition screen. All selected intervals and groups are printed followed by a total line, which totals all the intervals for the groups. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the Line of Business Code by ACD Group Report are derived from the LOB statistics fields listed in Table 25.

Table 25: Line of Business Code by ACD Group Report fields

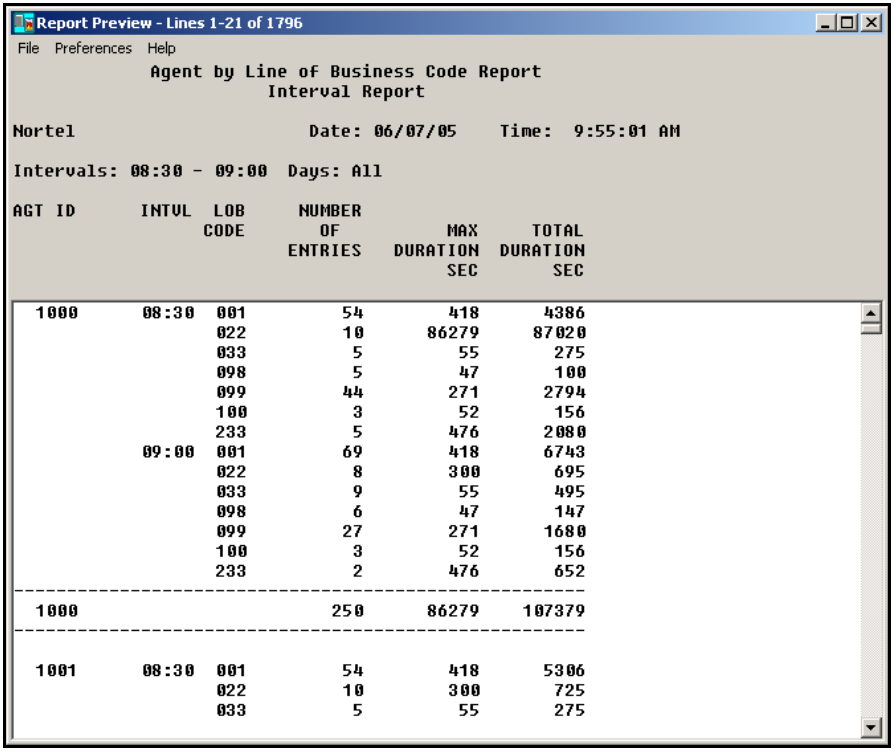
Statistic	Description
NUMBER OF ENTRIES	Number of LOB entries (NUM ENTRIES)
AVERAGE TALK TIME	Average duration of an LOB period (AVG TIME)

Agent by Line of Business Code Report

The Agent by Line of Business Code Report shows call processing time for each LOB code for each agent selected.

The key fields for this report are the AGENT-ID and the LOB code. Figure 32 shows an interval report for several agent IDs and LOB codes.

Figure 32: Agent by Line of Business Code Report



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Agent by Line of Business Code Report
Interval Report

Nortel Date: 06/07/05 Time: 9:55:01 AM

Intervals: 08:30 - 09:00 Days: All

AGT ID	INTVL	LOB CODE	NUMBER OF ENTRIES	MAX DURATION SEC	TOTAL DURATION SEC
1000	08:30	001	54	418	4386
		022	10	86279	87020
		033	5	55	275
		098	5	47	100
		099	44	271	2794
		100	3	52	156
		233	5	476	2080
	09:00	001	69	418	6743
		022	8	300	695
		033	9	55	495
		098	6	47	147
		099	27	271	1680
		100	3	52	156
		233	2	476	652
1000			250	86279	107379
1001	08:30	001	54	418	5306
		022	10	300	725
		033	5	55	275

This report shows each agent specified on the Report Parameter Definition screen. All selected intervals and agents are printed followed by a total line, which totals all the intervals for the agents. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the Agent by Line of Business Code Report are derived from the LOB statistics fields shown in Table 26.

Table 26: Agent by Line of Business Code Report fields

Statistic	Description
NUMBER OF ENTRIES	Number of LOB entries (NUM ENTRIES)
MAX DURATION	Maximum LOB call duration (MAX LOB DUR)
TOTAL DURATION	Total time charged to LOB (TOTAL TIME)

Beginning with CC MIS Release 5.2, the Agent by Line of Business Code Report is affected by two new data access options, that are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 32 on page 140 but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

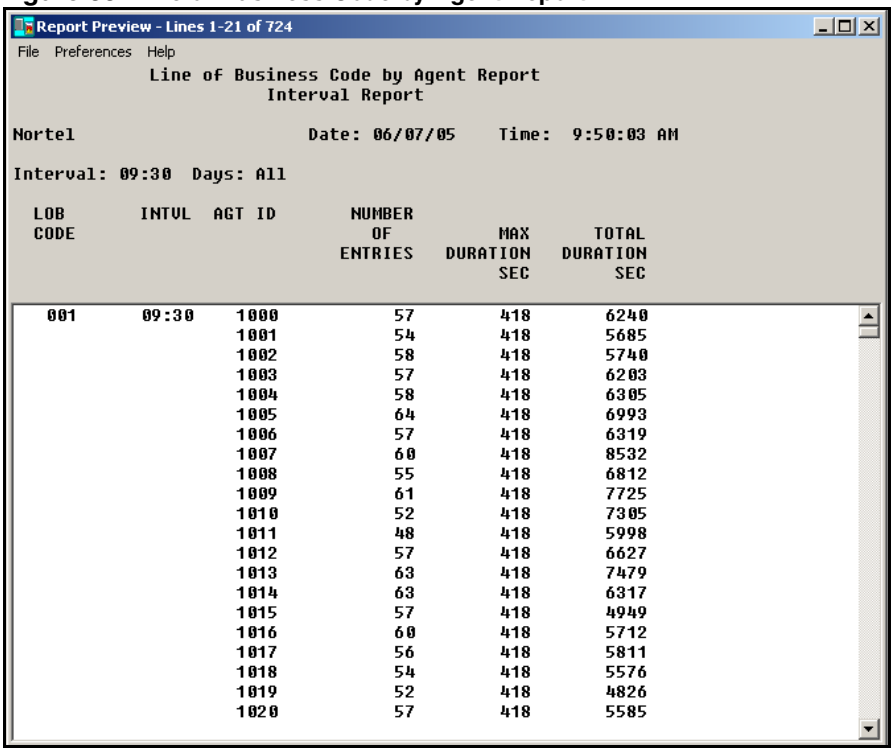
For sample reports showing the impact of these options, see “Agent Summary Report” on page 160.

Line of Business Code by Agent Report

The Line of Business Code by Agent Report shows call processing time for each LOB code selected. Call processing time is further broken down by the agents that handled the LOB calls.

The key fields for this report are the LOB code and the Agent-ID. Figure 33 shows an interval report for several LOB codes and agent IDs.

Figure 33: Line of Business Code by Agent Report



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File Preferences Help

Line of Business Code by Agent Report
Interval Report

Nortel Date: 06/07/05 Time: 9:50:03 AM

Interval: 09:30 Days: All

LOB CODE	INTVL	AGT ID	NUMBER OF ENTRIES	MAX DURATION SEC	TOTAL DURATION SEC
001	09:30	1000	57	418	6240
		1001	54	418	5685
		1002	58	418	5740
		1003	57	418	6203
		1004	58	418	6305
		1005	64	418	6993
		1006	57	418	6319
		1007	60	418	8532
		1008	55	418	6812
		1009	61	418	7725
		1010	52	418	7305
		1011	48	418	5998
		1012	57	418	6627
		1013	63	418	7479
		1014	63	418	6317
		1015	57	418	4949
		1016	60	418	5712
		1017	56	418	5811
		1018	54	418	5576
		1019	52	418	4826
		1020	57	418	5585

This report shows each agent specified on the Report Parameter Definition screen. All selected intervals and LOB Codes are printed followed by a total line, which totals all the intervals for the LOB codes. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the Line of Business Code by Agent Report are derived from the LOB statistics fields listed in Table 27.

Table 27: Line of Business Code by Agent Report fields

Statistic	Description
NUMBER OF ENTRIES	Number of LOB occurrences (NUM CHARGES)
MAX DURATION	Maximum LOB call duration (MAX LOB DUR)
TOTAL DURATION	Total time charged to LOB (TOTAL TIME)

Beginning with CC MIS Release 5.2, the Line of Business Code by Agent Report is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 33 on page 142 but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

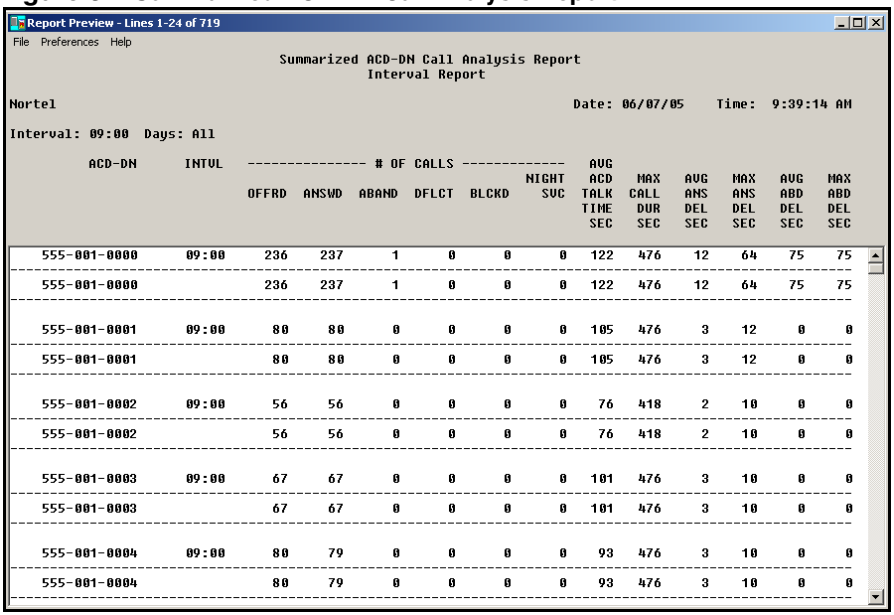
For sample reports showing the impact of these options, see “Agent Summary Report” on page 160.

Summarized ACD-DN Call Analysis Report

The Summarized ACD-DN Call Analysis Report shows statistics associated with calls made to ACD DNs. The ACD DNs can be primary or secondary DNs.

The key field for this report is the ACD-DN. Figure 34 shows an interval report for several ACD-DNs.

Figure 34: Summarized ACD-DN Call Analysis Report



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File Preferences Help

Summarized ACD-DN Call Analysis Report
Interval Report

Nortel Date: 06/07/05 Time: 9:39:14 AM

Interval: 09:00 Days: All

ACD-DN	INTVL	# OF CALLS						AVG ACD TALK TIME SEC	MAX CALL DUR SEC	AVG ANS DEL SEC	MAX ANS DEL SEC	AVG ABD DEL SEC	MAX ABD DEL SEC
		OFFRD	ANSWD	ABAND	DFLCT	BLCKD	NIGHT SVC						
555-001-0000	09:00	236	237	1	0	0	0	122	476	12	64	75	75
555-001-0000		236	237	1	0	0	0	122	476	12	64	75	75
555-001-0001	09:00	80	80	0	0	0	0	105	476	3	12	0	0
555-001-0001		80	80	0	0	0	0	105	476	3	12	0	0
555-001-0002	09:00	56	56	0	0	0	0	76	418	2	10	0	0
555-001-0002		56	56	0	0	0	0	76	418	2	10	0	0
555-001-0003	09:00	67	67	0	0	0	0	101	476	3	10	0	0
555-001-0003		67	67	0	0	0	0	101	476	3	10	0	0
555-001-0004	09:00	80	79	0	0	0	0	93	476	3	10	0	0
555-001-0004		80	79	0	0	0	0	93	476	3	10	0	0

This report shows each ACD-DN specified on the Report Parameter Definition screen. All selected intervals are printed followed by a total line, which totals all the intervals for the ACD-DNs. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the Summarized ACD-DN Call Analysis Report are derived from the ACD-DN statistics fields listed in Table 28.

Table 28: ACD-DN Call Analysis Report fields

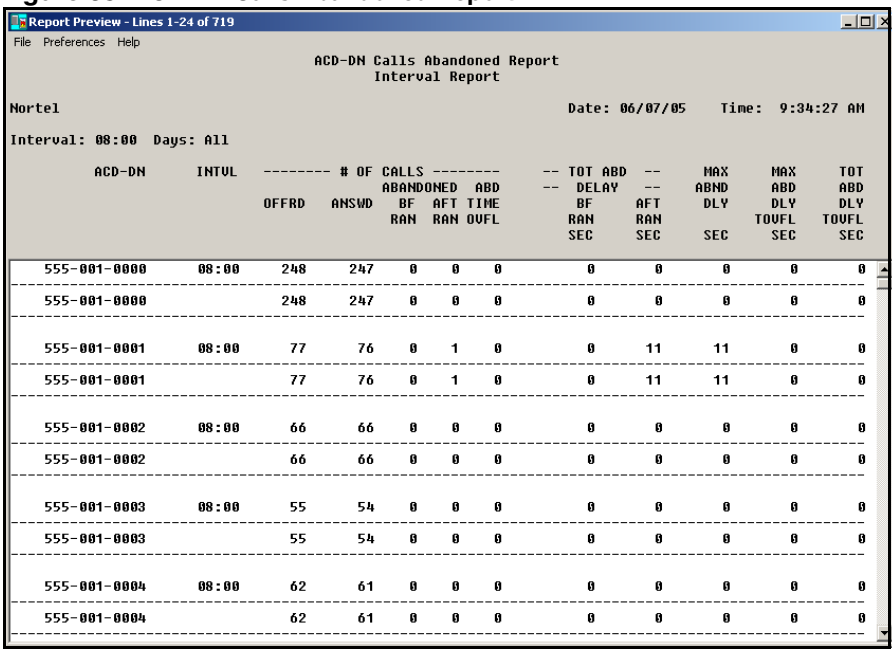
Statistic	Description
OFFRD	Number of calls offered (CALLS OFFRD)
ANSWD	Number of calls answered (CALLS ANSWD)
ABAND	Number of calls abandoned (CALLS ABAND)
DFLCT	Number of calls deflected (CALLS DFLCT)
BLCKD	Number of calls blocked (CALLS BLCKD)
NIGHT SVC	Number of night service calls (NUM NS CALLS)
AVG ACD TALK TIME	Average ACD talk time (AVG ACD TALK TIME)
MAX CALL DUR	Maximum call duration (MAX CALL DUR)
AVG ANS DEL	Average answering delay (AVG ANS DEL)
MAX ANS DEL	Maximum answering delay (MAX ANS DEL)
AVG ABD DEL	Average abandoning delay (AVG ABD DEL)
MAX ABD DEL	Maximum abandoning delay (MAX ABD DEL)

ACD-DN Calls Abandoned Report

The ACD-DN Calls Abandoned Report shows statistics associated with calls made to specific DNs that the caller abandoned. The DNs can be primary or secondary DNs.

The key field for this report is the ACD-DN. Figure 35 shows an interval report for several ACD-DNs.

Figure 35: ACD-DN Calls Abandoned Report



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File Preferences Help

ACD-DN Calls Abandoned Report
Interval Report

Nortel Date: 06/07/05 Time: 9:34:27 AM

Interval: 08:00 Days: All

ACD-DN	INTVL	# OF CALLS OFFRD	# OF CALLS ANSWD	ABANDONED BF RAN	ABANDONED AFT RAN	ABD TIME OVFL	TOT ABD DELAY BF RAN SEC	TOT ABD DELAY AFT RAN SEC	MAX ABND DLY SEC	MAX ABD DLY TOVFL SEC	TOT ABD DLY TOVFL SEC
555-001-0000	08:00	248	247	0	0	0	0	0	0	0	0
555-001-0000		248	247	0	0	0	0	0	0	0	0
555-001-0001	08:00	77	76	0	1	0	0	11	11	0	0
555-001-0001		77	76	0	1	0	0	11	11	0	0
555-001-0002	08:00	66	66	0	0	0	0	0	0	0	0
555-001-0002		66	66	0	0	0	0	0	0	0	0
555-001-0003	08:00	55	54	0	0	0	0	0	0	0	0
555-001-0003		55	54	0	0	0	0	0	0	0	0
555-001-0004	08:00	62	61	0	0	0	0	0	0	0	0
555-001-0004		62	61	0	0	0	0	0	0	0	0

This report shows each ACD-DN specified on the Report Parameter Definition screen. All selected intervals are printed followed by a total line, which totals all the intervals for the ACD-DNs. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the ACD-DN Calls Abandoned Report are derived from the ACD-DN statistics fields listed in Table 29.

Table 29: ACD-DN Calls Abandoned Report fields

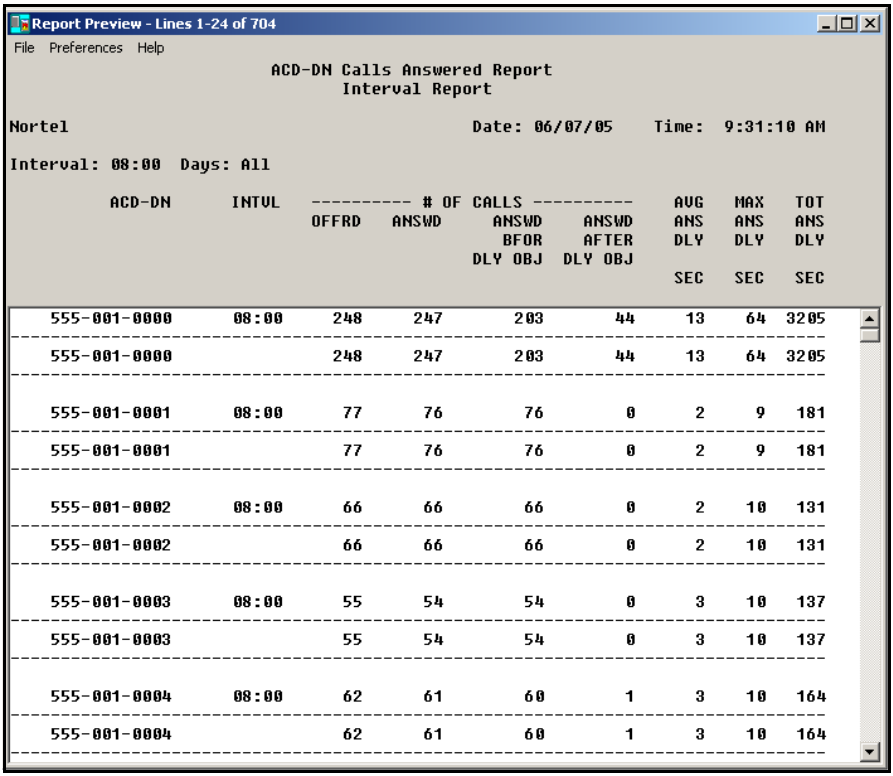
Statistic	Description
# OF CALLS	
OFFRD	Number of calls offered (CALLS OFFRD)
ANSWD	Number of calls answered (CALLS ANSWD)
ABANDONED	
BF RAN	Number of calls which were abandoned before receiving RAN (NUM ABD BF RAN)
AFT RAN	Number of abandoned calls receiving RAN (NUM ABD RCVD RAN)
ABD TIME OVFL	Number of logically queued abandoned calls (NUM ABD TOF)
TOT ABD DELAY	
BF RAN	Total time to abandon for calls that did not receive a RAN (TOTAL ABD TIME NORAN)
AFT RAN	Total time to abandon for calls receiving RAN (TOTAL ABD RCVD RAN)
MAX ABND DLY	Maximum abandoning delay (MAX ABD DEL)
MAX ABD DLY TOVFL	Maximum abandoning delay TOF (MAX ABD DLY TOF)
TOT ABD DLY TOVFL	Total abandoning delay TOF (TOTAL ABD DLY TOF)

ACD-DN Calls Answered Report

The ACD-DN Calls Answered Report shows statistics associated with calls made to specific DNs that an agent answered. The DNs can be primary or secondary DNs.

The key field for this report is the ACD-DN. Figure 36 shows an interval report for several ACD-DNs.

Figure 36: ACD-DN Calls Answered Report



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File Preferences Help

ACD-DN Calls Answered Report
Interval Report

Nortel Date: 06/07/05 Time: 9:31:10 AM

Interval: 08:00 Days: All

ACD-DN	INTVL	# OF CALLS OFFRD	# OF CALLS ANSWD	# OF CALLS ANSWD BFOR DLY OBJ	# OF CALLS ANSWD AFTER DLY OBJ	AVG ANS DLY SEC	MAX ANS DLY SEC	TOT ANS DLY SEC
555-001-0000	08:00	248	247	203	44	13	64	3205
555-001-0000		248	247	203	44	13	64	3205
555-001-0001	08:00	77	76	76	0	2	9	181
555-001-0001		77	76	76	0	2	9	181
555-001-0002	08:00	66	66	66	0	2	10	131
555-001-0002		66	66	66	0	2	10	131
555-001-0003	08:00	55	54	54	0	3	10	137
555-001-0003		55	54	54	0	3	10	137
555-001-0004	08:00	62	61	60	1	3	10	164
555-001-0004		62	61	60	1	3	10	164

This report shows each ACD-DN specified on the Report Parameter Definition screen. All selected intervals are printed and followed by a total line, which totals all the intervals for the ACD-DNs. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the ACD-DN Calls Abandoned Report are derived from the ACD-DN statistics fields shown in Table 30.

Table 30: ACD-DN Calls Abandoned Report fields

Statistic	Description
OFFRD	Number of calls offered (CALLS OFFRD)
ANSWD	Number of calls answered (CALLS ANSWD)
ANSWD BFOR DLY OBJ	Number of calls which were answered within the delay objective (ANS IN DLY OBJ)
ANSWD AFTER DLY OBJ	Number of calls which were answered after the delay objective (ANS AFT DLY OBJ)
AVG ANS DLY	Average answering delay (AVG ANS DEL)
MAX ANS DLY	Maximum answering delay (MAX ANS DEL)
TOT ANS DLY	Total answering delay (TOT ANS DEL)

Walkaway Code by ACD Group Report

The Walkaway Code by ACD Group Report shows agent walkaway activity for each walkaway code selected. A walkaway occurs when an agent presses the walkaway activation key and enters a three-digit walkaway code, which correlates to the type of activity the agent performs while not accepting ACD calls.

The key fields for this report are the WALKAWAY code and the ACD Group. Figure 37 shows an interval report for several walkaway codes and ACD groups.

Figure 37: Walkaway Code by ACD Group Report

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File Preferences Help

Walkaway Code by ACD Group Report
Interval Report

Nortel Date: 06/07/05 Time: 9:25:15 AM

Interval: 08:00 Days: All

WALKAWAY CODE	INTVL	WALKAWAY REASON	ACD GROUP	NUMBER OF WALKS	WALKAWAY TIME HH:MM	AVG WALK TIME SEC
-001	08:00	Not Defined	555-001-0000	123	0:17	8
			555-002-0000	115	0:18	10
			555-003-0000	123	0:16	8
			555-004-0000	115	0:17	9
			555-005-0000	121	0:13	6
			555-006-0000	104	0:13	8
			555-007-0000	140	0:22	9
			555-008-0000	103	0:16	9
			555-009-0000	109	0:22	12
			555-010-0000	129	0:17	8
-001		Not Defined		1182	2:51	9
				1182	2:51	9

This report shows each ACD group and walkaway code specified on the Report Parameter Definition screen. All selected intervals and walkaway codes are printed followed by a total line, which totals all the intervals for the walkaway codes. At the bottom of the report is a grand-total line, which totals all data for this report.

The walkaway reason is defined in the Walkaway Code Definition screen of Parameter Administration. The fields in the Walkaway Code by ACD Group Report are derived from the walkaway statistics fields listed in Table 31.

Table 31: Walkaway Code by ACD Group Report fields

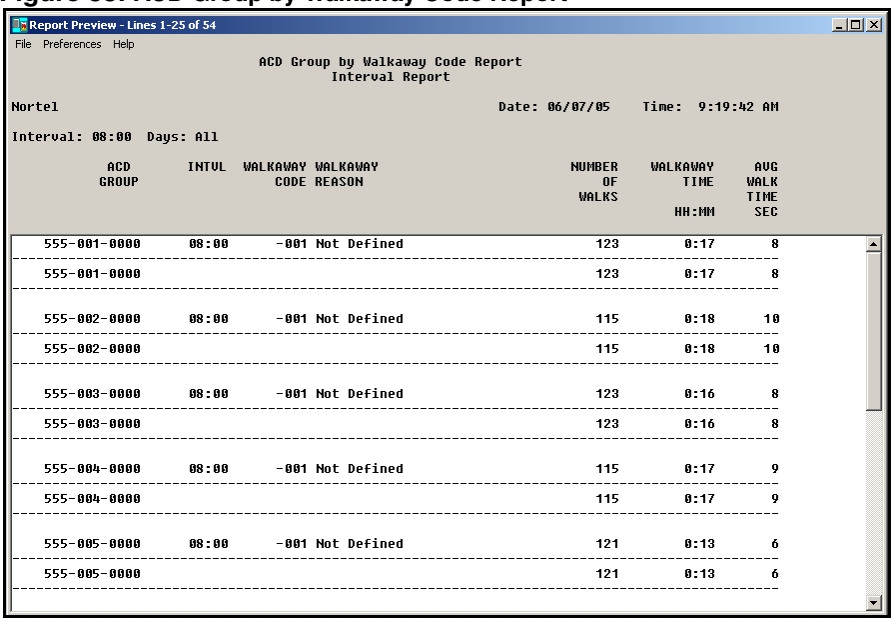
Statistic	Description
NUMBER OF WALKS	Number of walkaways (NUM WALKS)
WALKAWAY TIME	Total walkaway duration (TOT WALK DUR)
AVG WALK TIME	Average walk time (AVG WALK TIME)

ACD Group by Walkaway Code Report

The ACD Group by Walkaway Code Report shows agent walkaway activity for each ACD group selected. A walkaway occurs when an agent presses the walkaway activation key and enters a three-digit walkaway code, which correlates to the type of activity the agent performs while not accepting ACD calls.

The key fields for this report are the WALKAWAY code and the ACD Group. Figure 38 shows an interval report for several walkaway codes and ACD groups.

Figure 38: ACD Group by Walkaway Code Report



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File Preferences Help

ACD Group by Walkaway Code Report
Interval Report

Nortel Date: 06/07/05 Time: 9:19:42 AM

Interval: 08:00 Days: All

ACD GROUP	INTVL	WALKAWAY CODE	WALKAWAY REASON	NUMBER OF WALKS	WALKAWAY TIME HH:MM	AVG WALK TIME SEC
555-001-0000	08:00	-001	Not Defined	123	0:17	8
555-001-0000				123	0:17	8
555-002-0000	08:00	-001	Not Defined	115	0:18	10
555-002-0000				115	0:18	10
555-003-0000	08:00	-001	Not Defined	123	0:16	8
555-003-0000				123	0:16	8
555-004-0000	08:00	-001	Not Defined	115	0:17	9
555-004-0000				115	0:17	9
555-005-0000	08:00	-001	Not Defined	121	0:13	6
555-005-0000				121	0:13	6

This report shows each ACD group and walkaway code specified on the Report Parameter Definition screen. All selected intervals and walkaway codes are printed followed by a total line, which totals all the intervals for the walkaway codes. At the bottom of the report is a grand-total line, which totals all data for this report.

The walkaway reason is defined in the Walkaway Code Definition screen of Parameter Administration. The fields in the ACD Group by Walkaway Code Report are derived from the walkaway statistics fields listed in Table 32.

Table 32: ACD Group by Walkaway Code Report fields

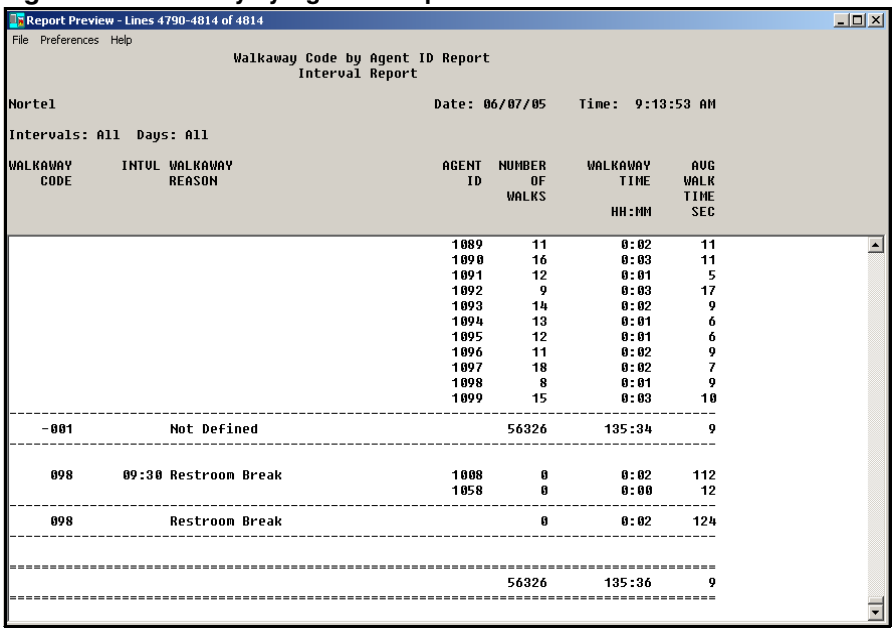
Statistic	Description
NUMBER OF WALKS	Number of walkaways (NUM WALKS)
WALKAWAY TIME	Total walkaway duration (TOT WALK DUR)
AVG WALK TIME	Average walk time (AVG WALK TIME)

Walkaway by Agent ID Report

The Walkaway by Agent ID Report summarizes the walkaway activity by agent ID. A walkaway occurs when an agent presses the walkaway activation key and enters a three-digit walkaway code, which correlates to the type of activity the agent performs while not accepting ACD calls.

The key fields for this report are the WALKAWAY code and the Agent ID. Figure 39 shows an interval report.

Figure 39: Walkaway by Agent ID Report



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File Preferences Help

Walkaway Code by Agent ID Report
Interval Report

Nortel Date: 06/07/05 Time: 9:13:53 AM

Intervals: All Days: All

WALKAWAY CODE	INTVL	WALKAWAY REASON	AGENT ID	NUMBER OF WALKS	WALKAWAY TIME HH:MM	AVG WALK TIME SEC
			1089	11	0:02	11
			1090	16	0:03	11
			1091	12	0:01	5
			1092	9	0:03	17
			1093	14	0:02	9
			1094	13	0:01	6
			1095	12	0:01	6
			1096	11	0:02	9
			1097	18	0:02	7
			1098	8	0:01	9
			1099	15	0:03	10
-001		Not Defined		56326	135:34	9
098	09:30	Restroom Break	1008	0	0:02	112
			1058	0	0:00	12
098		Restroom Break		0	0:02	124
				56326	135:36	9

This report shows each Agent ID and walkaway code specified on the Report Parameter Definition screen. All selected intervals and walkaway codes are printed followed by a total line, which totals all the intervals for the walkaway codes. At the bottom of the report is a grand-total line, which totals all data for this report.

The walkaway reason is defined in the Walkaway Code Definition screen of Parameter Administration. The fields in the ACD Group by Walkaway Code Report are derived from the walkaway statistics fields listed in Table 33.

Table 33: ACD Group by Walkaway Code Report fields

Statistic	Description
NUMBER OF WALKS	Number of walkaways (NUM WALKS)
WALKAWAY TIME	Total walkaway duration (TOT WALK DUR)
AVG WALK TIME	Average walk time (AVG WALK TIME)

Beginning with CC MIS Release 5.2, the Walkaway by Agent ID Report is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report appears as shown in Figure 39 on page 154, but each agent ID is replaced with hash characters (#).

If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

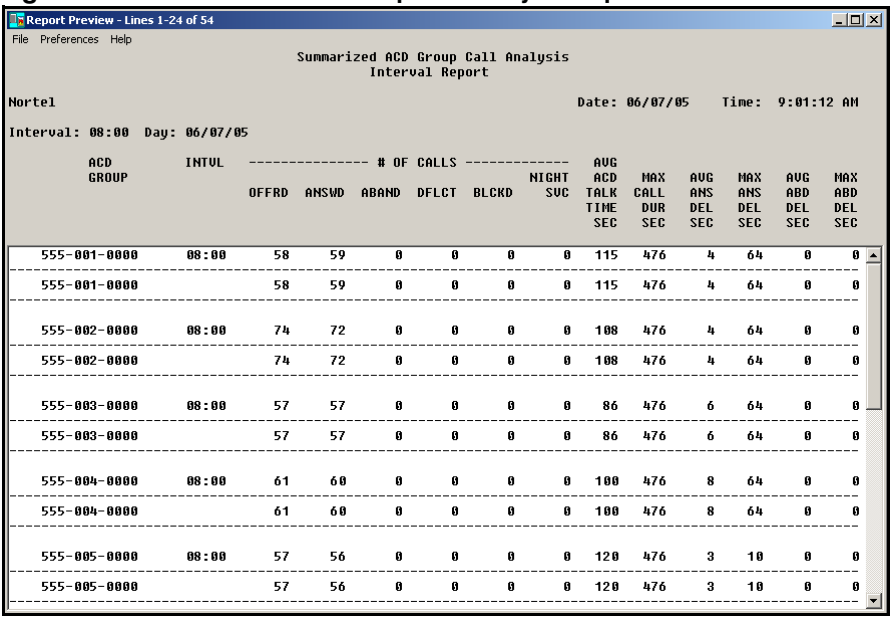
For sample reports showing the impact of these options, see “Agent Summary Report” on page 160.

Summarized ACD Group Call Analysis Report

The Summarized ACD Group Call Analysis Report shows statistics associated with calls made to ACD groups.

The key field for this report is the ACD Group. Figure 40 shows an interval report for several ACD groups.

Figure 40: Summarized ACD Group Call Analysis Report



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File Preferences Help

Summarized ACD Group Call Analysis
Interval Report

Nortel Date: 06/07/05 Time: 9:01:12 AM

Interval: 08:00 Day: 06/07/05

ACD GROUP	INTVL	# OF CALLS OFFRD	ANSWD	ABAND	DFLCT	BLCKD	NIGHT SVC	AVG ACD TALK TIME SEC	MAX CALL DUR SEC	AVG ANS DEL SEC	MAX ANS DEL SEC	AVG ABD DEL SEC	MAX ABD DEL SEC
555-001-0000	08:00	58	59	0	0	0	0	115	476	4	64	0	0
555-001-0000		58	59	0	0	0	0	115	476	4	64	0	0
555-002-0000	08:00	74	72	0	0	0	0	108	476	4	64	0	0
555-002-0000		74	72	0	0	0	0	108	476	4	64	0	0
555-003-0000	08:00	57	57	0	0	0	0	86	476	6	64	0	0
555-003-0000		57	57	0	0	0	0	86	476	6	64	0	0
555-004-0000	08:00	61	60	0	0	0	0	100	476	8	64	0	0
555-004-0000		61	60	0	0	0	0	100	476	8	64	0	0
555-005-0000	08:00	57	56	0	0	0	0	120	476	3	10	0	0
555-005-0000		57	56	0	0	0	0	120	476	3	10	0	0

This report shows each ACD group specified on the Report Parameter Definition screen. All selected intervals are printed followed by a total line, which totals all the intervals for the ACD groups. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the Summarized ACD Group Call Analysis Report are derived from the ACD-GRP statistics fields listed in Table 34.

Table 34: Summarized ACD Group Call Analysis Report fields

Statistic	Description
OFFRD	Number of calls offered (CALLS OFFRD)
ANSWD	Number of calls answered (CALLS ANSWD)
ABAND	Number of calls abandoned (CALLS ABAND)
DFLCT	Number of calls deflected (CALLS DFLCT)
BLCKD	Number of calls blocked (CALLS BLCKD)
NIGHT SVC	Number of night service calls (NUM NS CALLS)
AVG ACD TALK TIME	Average ACD talk time (AVG ACD TALK TIME)
MAX CALL DUR	Maximum call duration (MAX CALL DUR)
AVG ANS DEL	Average answering delay (AVG ANS DEL)
MAX ANS DEL	Maximum answering delay (MAX AND DEL)
AVG ABD DEL	Average abandoning delay (AVG ABD DEL)
MAX ABD DEL	Maximum abandoning delay (MAX ABD DEL)

ACD Group Overflow Report

The ACD Group Overflow Report shows statistics associated with calls that overflowed from one group to another.

The key fields for this report are the Source ACD Group and Destination ACD Group. Figure 41 shows an interval report for several source and destination ACD groups.

Figure 41: ACD Group Overflow Report

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File Preferences Help

ACD Group Overflow Report
Interval Report

Nortel Date: 06/07/05 Time: 8:25:56 AM

Interval: 07:30 Day: 06/07/05

DESTINATION ACD GROUP	INTVL	SOURCE ACD GROUP	NUM CALL ANS	QOF CALLS	QOF %	TOF CALLS	TOF %	MAX TOF DLY	TOT TOF DLY
555-001-0000	07:30	555-001-0000	46	0	0	0	0	0	0
		555-002-0000	1	0	0	0	0	0	0
		555-011-0000	0	0	0	0	0	0	0
555-001-0000			47	0	0	0	0	0	0
555-002-0000	07:30	555-002-0000	63	0	0	0	0	0	0
		555-020-0000	1	0	0	0	0	0	0
		555-022-0000	1	0	0	0	0	0	0
		555-032-0000	1	0	0	0	0	0	0
555-002-0000			66	0	0	0	0	0	0
555-003-0000	07:30	555-003-0000	61	0	0	0	0	0	0
		555-020-0000	1	0	0	0	0	0	0
		555-021-0000	1	0	0	0	0	0	0
		555-027-0000	1	0	0	0	0	0	0
555-003-0000			64	0	0	0	0	0	0
555-004-0000	07:30	555-003-0000	1	0	0	0	0	0	0
		555-004-0000	52	0	0	0	0	0	0
		555-006-0000	1	0	0	0	0	0	0

This report shows each source ACD group specified on the Report Parameter Definition screen. All selected intervals are printed followed by a total line, which totals all the intervals for the source ACD groups. At the bottom of the report is a grand-total line, which totals all data for this report.

The fields in the Summarized ACD Group Overflow Report are derived from the overflow statistics fields listed in Table 35.

Table 35: Summarized ACD Group Overflow Report fields

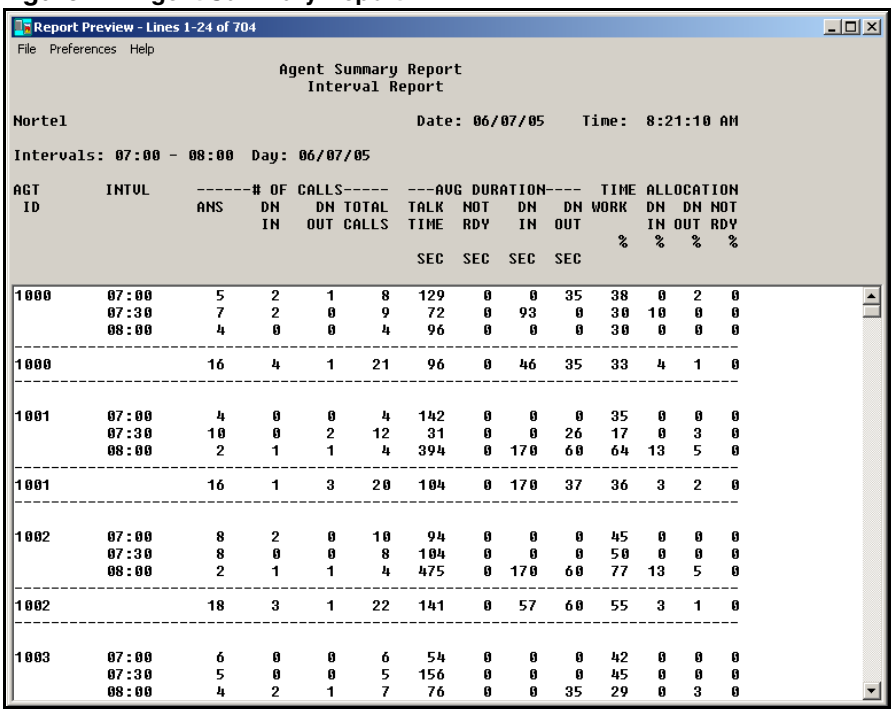
Statistic	Description
NUM CALLS ANS	Number of calls answered (CALLS ANSWD)
QOF CALLS	Number of calls which queue count overflowed (QOF CALLS)
QOF %	Percentage of calls that queue count overflowed (QOF %)
TOF CALLS	Total number of calls that time overflowed (TOTAL TOF CALLS)
TOF %	Percentage of calls that time overflowed (TOF ANS %)
MAX TOF DLY	Maximum time overflow answer delay (MAX TOF DLY)
TOT TOF DLY	Answer delay for time overflow calls (TOT TOF DLY)

Agent Summary Report

The Agent Summary Report summarizes the activity of each agent.

The key field for this report is Agent ID. Figure 42 shows a sample interval report.

Figure 42: Agent Summary Report



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File Preferences Help

Agent Summary Report
Interval Report

Nortel Date: 06/07/05 Time: 8:21:10 AM

Intervals: 07:00 - 08:00 Day: 06/07/05

AGT ID	INTVL	ANS	DN IN	DN OUT	DN TOTAL CALLS	TALK TIME SEC	NOT RDY SEC	DN IN SEC	DN OUT SEC	TIME WORK %	ALLOCATION DN IN %	DN OUT %	DN NOT RDY %
1000	07:00	5	2	1	8	129	0	0	35	38	0	2	0
	07:30	7	2	0	9	72	0	93	0	30	10	0	0
	08:00	4	0	0	4	96	0	0	0	30	0	0	0
1000		16	4	1	21	96	0	46	35	33	4	1	0
1001	07:00	4	0	0	4	142	0	0	0	35	0	0	0
	07:30	10	0	2	12	31	0	0	26	17	0	3	0
	08:00	2	1	1	4	394	0	170	60	64	13	5	0
1001		16	1	3	20	104	0	170	37	36	3	2	0
1002	07:00	8	2	0	10	94	0	0	0	45	0	0	0
	07:30	8	0	0	8	104	0	0	0	50	0	0	0
	08:00	2	1	1	4	475	0	170	60	77	13	5	0
1002		18	3	1	22	141	0	57	60	55	3	1	0
1003	07:00	6	0	0	6	54	0	0	0	42	0	0	0
	07:30	5	0	0	5	156	0	0	0	45	0	0	0
	08:00	4	2	1	7	76	0	0	35	29	0	3	0

This report shows each agent specified on the Report Parameter Definition screen. All selected intervals for the agent are printed followed by a total line, which summarizes all the intervals. At the bottom of the report is a grand-total line, which summarizes all selected agent data for this report.

The fields in the Agent Summary Report are derived from the agent statistics fields listed in Table 36.

Table 36: Agent Summary Report fields

Statistic	Description
# OF CALLS	
ANS	Number of calls answered (CALLS ANSWD)
DN IN	Number of incoming DN calls (IN DN CALLS)
DN OUT	Number of outgoing DN calls (OUT DN CALLS)
TOTAL CALLS	Total calls (TOTAL CALLS)
AVG DURATION	
TALK TIME	Average ACD talk time (AVG ACD TALK TIME)
NOT RDY	Average Not Ready time (AVG NOT RDY TIME)
DN IN	Average incoming DN call time (AVG DN IN TIME)
DN OUT	Average outgoing DN call time (AVG DN OUT TIME)
TIME ALLOCATION	
WORK %	Percentage of staffed time worked (WORK STFD %)
DN IN %	Percentage of staffed time on incoming DN calls (DN IN %)
DN OUT %	Percentage of staffed time on outgoing DN calls (DN OUT %)
NOT RDY %	Percentage of staffed time spent Not Ready (NOT RDY %)

Beginning with CC MIS Release 5.2, the Agent Summary Report is affected by two new Data Access options, which are enabled or disabled in Privilege Level Definition. The Data Access options are Agent Identity and Agent Performance.

If the Agent Identity option is disabled (while the Agent Performance option is enabled), the report is similar to Figure 42 on page 160; however, each agent ID is replaced with hash characters (#) as shown in Figure 43.

Figure 43: Agent Summary Report with the Data Access Agent Identity option disabled

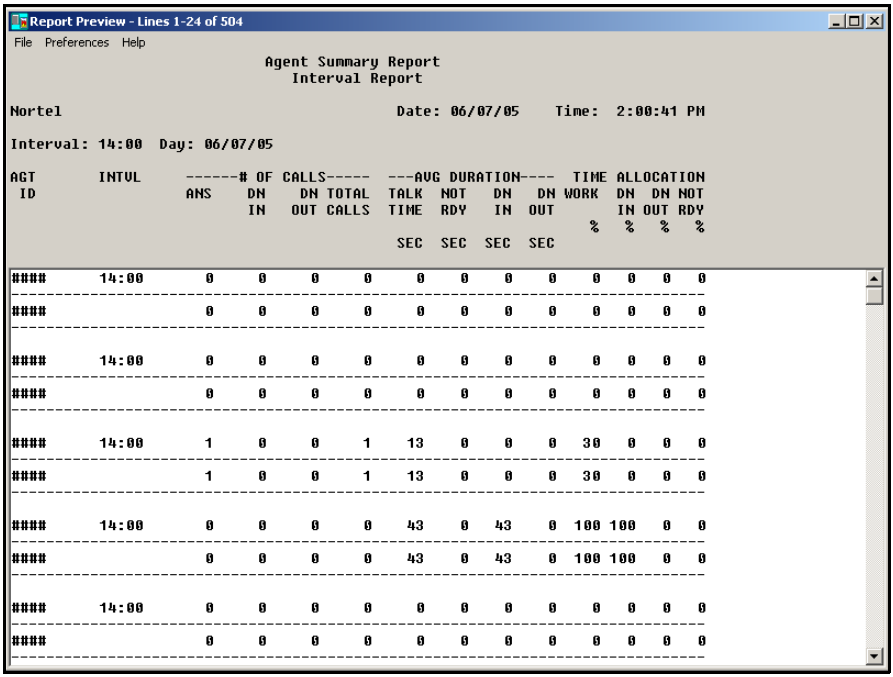
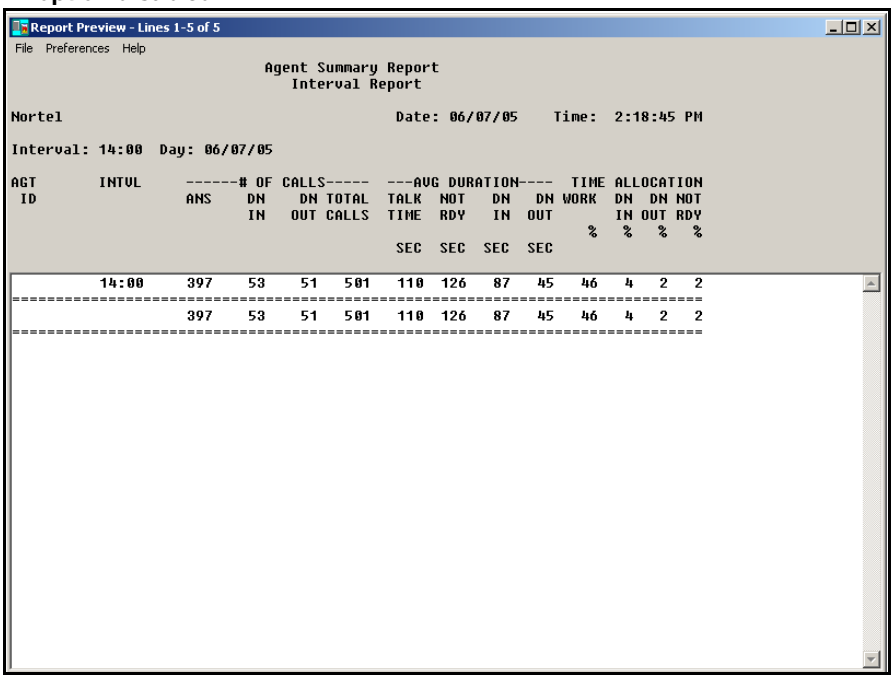


Figure 44 shows a sample report with the Agent Performance option disabled in the Privilege Level for the supervisor. If the Agent Performance option is disabled, the Agent ID column is empty and all agent performance information for the time frame is combined so that individual agent information cannot be determined.

Figure 44: Agent Summary Report with the Data Access Agent Performance option disabled



Standard graphical management reports

This section describes the standard graphical management reports available in CC MIS. You can use these reports as they are, or a supervisor can customize them. Example enhancements include graphical format changes, new fields, and field calculation changes. These changes are performed using the Report Definition capabilities that are available to a supervisor who has the report definition enabled in their profile. Additionally, such a supervisor can define new custom reports in graphical formats, using available or custom statistics.

The data in the report is based on statistics which are either

- stored directly in the database, or
- computed based on data that is stored in the database

This data is maintained by interval (half-hour), day, week, or month. Reports can be based on interval, daily, weekly, or monthly time frames. Reports can also be generated based on shift and period time frames, which are defined in the Time Frames Definition administration mode. The shift reports are generated using interval data; the period reports are generated using daily data. The data in each standard report is available for all time periods (except for those restricted by the parameters specified in the database Storage Calculator).

Additionally, report parameters can be specified (using Report Parameter Definition) that limit the report to particular ACD groups or logical ACD groups.

The description of each standard report includes the available keys for that report. When specifying the parameters for the report, a supervisor can specify a value, a range of values, or all values.

Included with each example report is a table that specifies the fields in the report. The table shows the name of the standard statistics fields as well as the default heading that is associated with the statistics fields. The default heading is not used in graphic format but is provided to easily look up of the field definition in the historical statistics appendix.

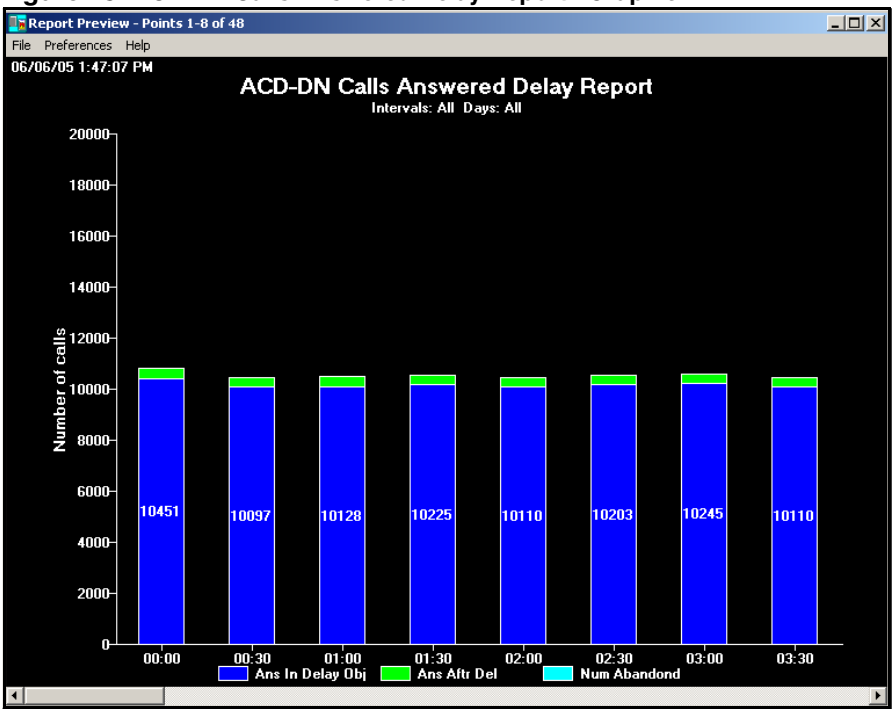
All example reports are shown with the formats that are delivered with the system. The customer can change the report layout at any time and store it as a new public or personal format.

ACD-DN Calls Answered Delay Report - Graphic

The ACD-DN Calls Answered Delay Report graphically displays calls answered before the delay objective versus calls answered after the delay objective. The report also shows abandoned calls.

The key field for this report is the ACD-DN. Figure 45 shows an interval report.

Figure 45: ACD-DN Calls Answered Delay Report - Graphic



This report shows each ACD-DN specified on the Report Parameter Definition screen.

The fields in the ACD-DN Calls Answered Delay Report are derived from the ACD-DN statistics fields listed inTable 37.

Table 37: ACD-DN Calls Answered Delay Report fields

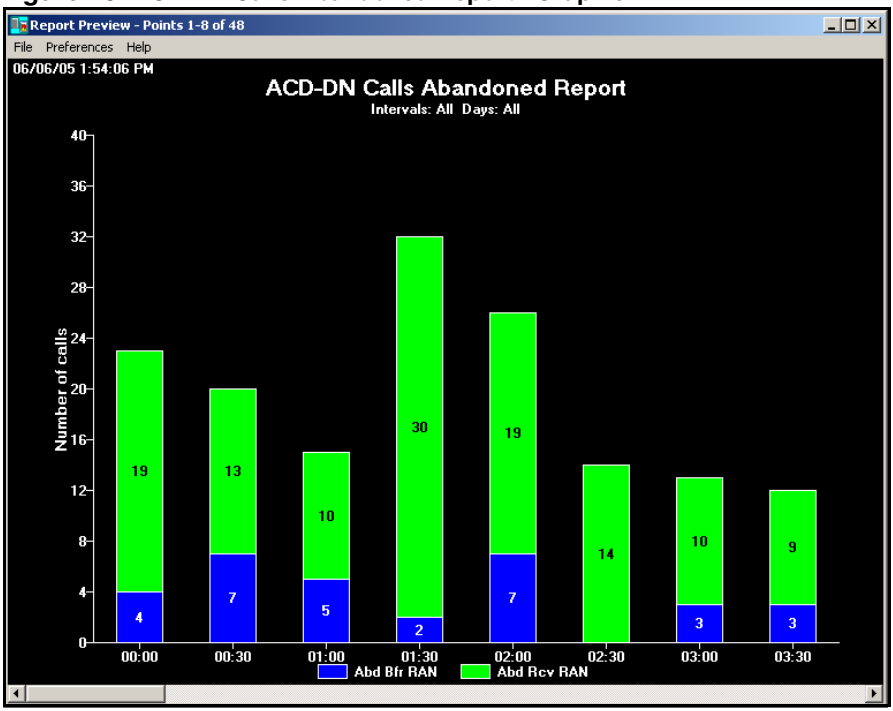
Statistic	Description
ANS BFR DEL	Number of calls that were answered within the delay objective (ANS IN DLY OBJ)
ANS AFTR DEL	Number of calls that were answered after the delay objective (ANS AFT DLY OBJ)
NUM ABANDOND	Number of calls abandoned (CALLS ABAND)

ACD-DN Calls Abandoned Report - Graphic

The ACD-DN Calls Abandoned Report graphically displays calls abandoned before receiving the recorded announcement versus calls abandoned after receiving the recorded announcement.

The key field for this report is the ACD-DN. Figure 46 shows an interval report.

Figure 46: ACD-DN Calls Abandoned Report - Graphic



This report shows each ACD-DN specified on the report parameter definition screen.

The fields in the ACD-DN Calls Abandoned Report are derived from the ACD-DN statistics fields listed in Table 38.

Table 38: ACD-DN Calls Abandoned Report fields

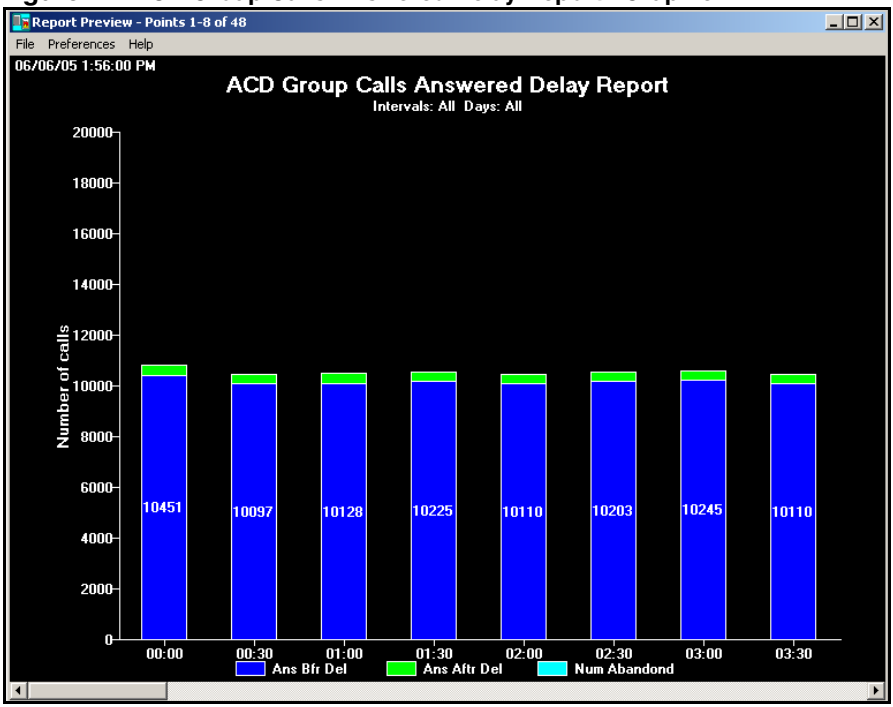
Statistic	Description
ABD BFR RAN	Number of calls that were abandoned before receiving RAN (NUM ABD BF RAN)
ABD RCV RAN	Number of abandoned calls that received RAN (NUM ABD RCV RAN)

ACD Group Calls Answered Delay Report - Graphic

The ACD Group Calls Answered Delay Report graphically displays calls answered before the delay objective versus calls answered after the delay objective. The report also shows abandoned calls.

The key field for this report is the ACD Group. Figure 47 shows an interval report.

Figure 47: ACD Group Calls Answered Delay Report - Graphic



This report shows each ACD Group specified on the Report Parameter Definition screen. The fields in the ACD Group Calls Answered Delay Report are derived from the ACD Group statistics fields listed in Table 39.

Table 39: ACD Group Calls Answered Delay Report fields

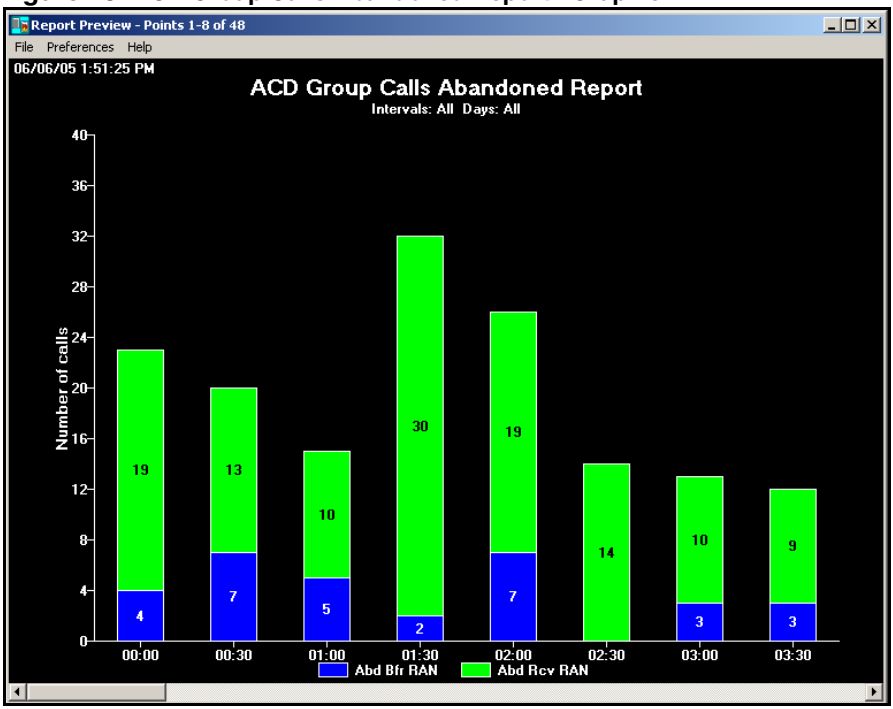
Statistic	Description
ANS BFR DEL	Number of calls that were answered within the delay objective (ANS IN DLY OBJ)
ANS AFTR DEL	Number of calls that were answered after the delay objective (ANS AFT DLY OBJ)
NUM ABANDOND	Number of calls abandoned (CALLS ABAND)

ACD Group Calls Abandoned Report - Graphic

The ACD Group Calls Abandoned Report graphically displays calls abandoned before receiving the recorded announcement versus calls abandoned after receiving the recorded announcement.

The key field for this report is the ACD Group. Figure 48 shows an interval report.

Figure 48: ACD Group Calls Abandoned Report - Graphic



This report shows each ACD Group specified on the Report Parameter Definition screen.

The fields in the ACD Group Calls Abandoned Report are derived from the ACD Group statistics fields listed in Table 40.

Table 40: ACD Group Calls Abandoned Report fields

Statistic	Description
ABD BFR RAN	Number of calls that were abandoned before receiving RAN (NUM ABD BF RAN)
ABD RCV RAN	Number of abandoned calls that received RAN (NUM ABD RCV RAN)

Event log reports

Event log reports provide various levels of detail about an agent's workday. The reports show logon and logoff times and the hours an agent worked.

Note: The information in these reports does not come from the Statistic Groups and is not available for custom reports.

The data in the event logs is available as defined by the parameters specified in the Storage Calculator database.

The key field on each event log is Agent ID. A report can be generated for a single agent, for a range of agents, or for all agents.

Beginning with CC MIS Release 5.2, the Event Log Reports is affected by two new data access options, which are enabled or disabled in Privilege Level Definition. The data access options are Agent Identity and Agent Performance. If the Agent Identity option is disabled (while the Agent Performance option is enabled), the reports appear with each agent ID replaced with hash characters (#).

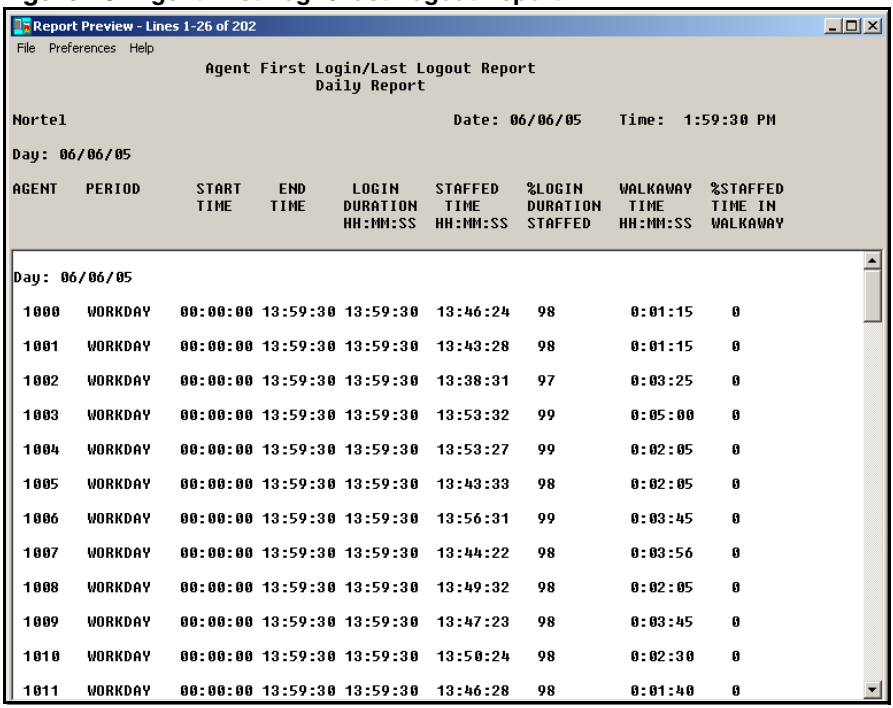
A supervisor with the Agent Performance option disabled cannot generate event log reports.

Agent First Login/Last Logout Report

The Agent First Login/Last Logout Report shows when an agent started and ended work on a specific day and how much time was spent in staffed status. You can use this report as a summary for payroll and administration and to show variations in the overall efficiency of individual agents.

Figure 49 shows an example of the Agent First Login/Logout Report.

Figure 49: Agent First Login/Last Logout Report



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Agent First Login/Last Logout Report
Daily Report

Nortel Date: 06/06/05 Time: 1:59:30 PM

Day: 06/06/05

AGENT	PERIOD	START TIME	END TIME	LOGIN DURATION HH:MM:SS	STAFFED TIME HH:MM:SS	%LOGIN DURATION STAFFED	WALKAWAY TIME HH:MM:SS	%STAFFED TIME IN WALKAWAY
Day: 06/06/05								
1000	WORKDAY	00:00:00	13:59:30	13:59:30	13:46:24	98	0:01:15	0
1001	WORKDAY	00:00:00	13:59:30	13:59:30	13:43:28	98	0:01:15	0
1002	WORKDAY	00:00:00	13:59:30	13:59:30	13:38:31	97	0:03:25	0
1003	WORKDAY	00:00:00	13:59:30	13:59:30	13:53:32	99	0:05:00	0
1004	WORKDAY	00:00:00	13:59:30	13:59:30	13:53:27	99	0:02:05	0
1005	WORKDAY	00:00:00	13:59:30	13:59:30	13:43:33	98	0:02:05	0
1006	WORKDAY	00:00:00	13:59:30	13:59:30	13:56:31	99	0:03:45	0
1007	WORKDAY	00:00:00	13:59:30	13:59:30	13:44:22	98	0:03:56	0
1008	WORKDAY	00:00:00	13:59:30	13:59:30	13:49:32	98	0:02:05	0
1009	WORKDAY	00:00:00	13:59:30	13:59:30	13:47:23	98	0:03:45	0
1010	WORKDAY	00:00:00	13:59:30	13:59:30	13:50:24	98	0:02:30	0
1011	WORKDAY	00:00:00	13:59:30	13:59:30	13:46:28	98	0:01:40	0

Table 41 lists the fields in the Agent First Login/Last Logout Report.

Table 41: Agent First Login/Logout Report fields

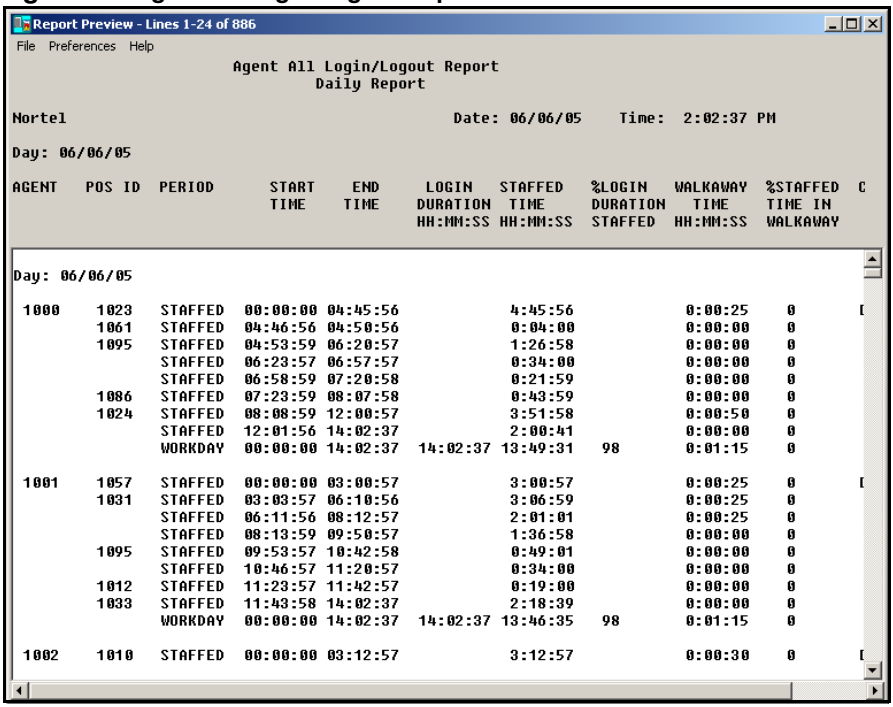
Field	Description
START TIME	The time of the first logon of the day.
END TIME	The time of the last logoff of the day.
LOGIN DURATN	The time between the first logon and the last logoff of the day.
STAFFED TIME	The time spent logged on to the system.
% LOGIN DURATN STAFFED	The percentage of the logon duration time that the position was staffed.
WALKAWAY TIME	The total time the agent spent in all walkaway states.
% STAFFED TIME IN WALKAWAY	The percentage of the total staffed time that the agent spent in walkaway states.

Agent All Login/Logout Report

The Agent All Login/Logout Report shows the time and length of each agent's logon and logoff activities during the day. You can use this report to verify shift and break times.

Figure 50 shows an example of the Agent All Login/Logout Report.

Figure 50: Agent All Login/Logout Report



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Agent All Login/Logout Report
Daily Report

Nortel Date: 06/06/05 Time: 2:02:37 PM

Day: 06/06/05

AGENT	POS ID	PERIOD	START TIME	END TIME	LOGIN DURATION HH:MM:SS	STAFFED TIME HH:MM:SS	%LOGIN DURATION STAFFED	WALKAWAY TIME HH:MM:SS	%STAFFED TIME IN WALKAWAY	C
Day: 06/06/05										
1000	1023	STAFFED	00:00:00	04:45:56		4:45:56		0:00:25	0	[
	1061	STAFFED	04:46:56	04:50:56		0:04:00		0:00:00	0	
	1095	STAFFED	04:53:59	06:20:57		1:26:58		0:00:00	0	
		STAFFED	06:23:57	06:57:57		0:34:00		0:00:00	0	
		STAFFED	06:58:59	07:20:58		0:21:59		0:00:00	0	
	1086	STAFFED	07:23:59	08:07:58		0:43:59		0:00:00	0	
	1024	STAFFED	08:08:59	12:00:57		3:51:58		0:00:50	0	
		STAFFED	12:01:56	14:02:37		2:00:41		0:00:00	0	
		WORKDAY	00:00:00	14:02:37	14:02:37	13:49:31	98	0:01:15	0	
1001	1057	STAFFED	00:00:00	03:00:57		3:00:57		0:00:25	0	[
	1031	STAFFED	03:03:57	06:10:56		3:06:59		0:00:25	0	
		STAFFED	06:11:56	08:12:57		2:01:01		0:00:25	0	
		STAFFED	08:13:59	09:50:57		1:36:58		0:00:00	0	
	1095	STAFFED	09:53:57	10:42:58		0:49:01		0:00:00	0	
		STAFFED	10:46:57	11:20:57		0:34:00		0:00:00	0	
	1012	STAFFED	11:23:57	11:42:57		0:19:00		0:00:00	0	
	1033	STAFFED	11:43:58	14:02:37		2:18:39		0:00:00	0	
		WORKDAY	00:00:00	14:02:37	14:02:37	13:46:35	98	0:01:15	0	
1002	1010	STAFFED	00:00:00	03:12:57		3:12:57		0:00:30	0	[

Each agent has staffed periods and workday periods. Multiple staffed periods can exist if the agent logged on and logged off multiple times. The workday period is a summary line for all staffed periods during the day.

Table 42 lists the field descriptions for the staffed periods.

Table 42: Staffed periods

Field	Description
START TIME	The time of each logon throughout the day.
END TIME	The time of each logoff throughout the day.
STAFFED TIME	The time spent logged on to the system.

Table 43 lists the field descriptions for the workday periods.

Table 43: Workday periods

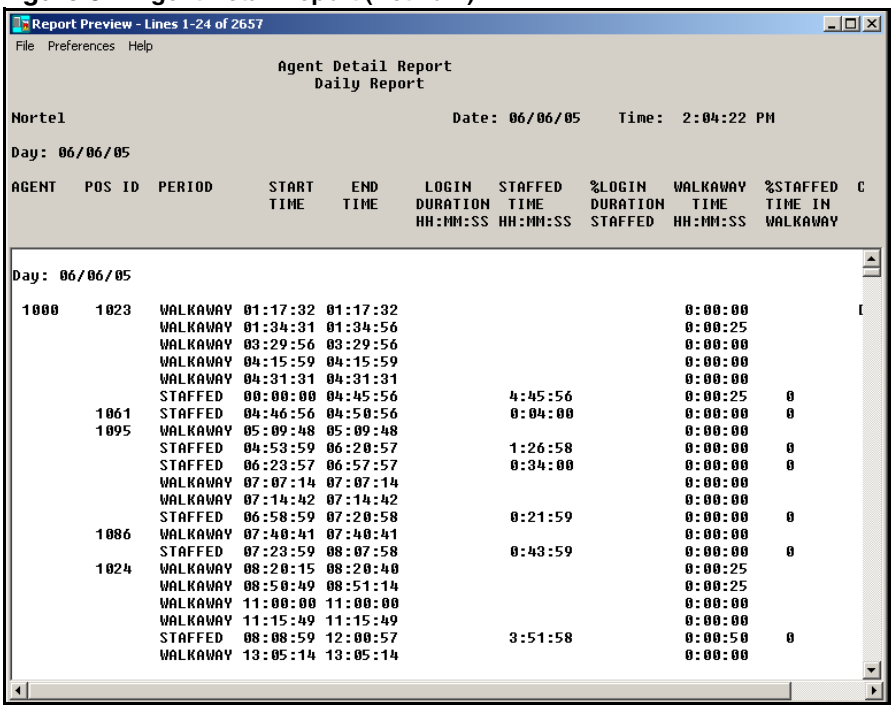
Field	Description
START TIME	The time of the first logon of the day.
END TIME	The time of the last logoff of the day.
LOGIN DURATN	The time between the first logon and the last logoff of the day.
STAFFED TIME	The sum of all the logged-on times during the day.
% LOGIN DURATN STAFFED	The staffed time as a percentage of the logon duration time.
WALKAWAY TIME	The time spent by the agent in walkaway states.
% STAFFED TIME IN WALKAWAY	The percentage of the total staffed time that the agent spent in walkaway states.

Agent Detail Report

The Agent Detail Report shows the time and length of each agent's logon, logoff, and walkaway activities during the day. You can use this report to verify shift times, break times, and walkaway times.

Figure 51 shows an example of the Agent Detail Report.

Figure 51: Agent Detail Report (Network)



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Agent Detail Report
Daily Report

Nortel Date: 06/06/05 Time: 2:04:22 PM

Day: 06/06/05

AGENT	POS ID	PERIOD	START TIME	END TIME	LOGIN DURATION HH:MM:SS	STAFFED TIME HH:MM:SS	%LOGIN DURATION STAFFED	WALKAWAY TIME HH:MM:SS	%STAFFED TIME IN WALKAWAY	C
Day: 06/06/05										
1000	1023	WALKAWAY	01:17:32	01:17:32				0:00:00		[
		WALKAWAY	01:34:31	01:34:56				0:00:25		
		WALKAWAY	03:29:56	03:29:56				0:00:00		
		WALKAWAY	04:15:59	04:15:59				0:00:00		
		WALKAWAY	04:31:31	04:31:31				0:00:00		
		STAFFED	00:00:00	04:45:56		4:45:56		0:00:25	0	
	1061	STAFFED	04:46:56	04:50:56		0:04:00		0:00:00	0	
	1095	WALKAWAY	05:09:48	05:09:48				0:00:00		
		STAFFED	04:53:59	06:20:57		1:26:58		0:00:00	0	
		STAFFED	06:23:57	06:57:57		0:34:00		0:00:00	0	
		WALKAWAY	07:07:14	07:07:14				0:00:00		
		WALKAWAY	07:14:42	07:14:42				0:00:00		
		STAFFED	06:58:59	07:20:58		0:21:59		0:00:00	0	
	1086	WALKAWAY	07:40:41	07:40:41				0:00:00		
		STAFFED	07:23:59	08:07:58		0:43:59		0:00:00	0	
	1024	WALKAWAY	08:20:15	08:20:40				0:00:25		
		WALKAWAY	08:50:49	08:51:14				0:00:25		
		WALKAWAY	11:00:00	11:00:00				0:00:00		
		WALKAWAY	11:15:49	11:15:49				0:00:00		
		STAFFED	08:08:59	12:00:57		3:51:58		0:00:50	0	
		WALKAWAY	13:05:14	13:05:14				0:00:00		

Each agent has walkaway periods, staffed periods, and workday periods. Multiple staffed periods can exist if the agent logged on and logged off multiple times. An agent can have multiple walkaway periods by entering walkaway states multiple times. The workday period is a summary line for all staffed periods during the day.

Table 44 lists the field descriptions for the walkaway periods.

Table 44: Walkaway periods

Field	Description
START TIME	The time that the agent entered the walkaway state.
END TIME	The time that the agent returned from the walkaway state.

Table 45 lists the field descriptions for the staffed periods.

Table 45: Staffed periods

Field	Description
START TIME	The time that the agent logged on.
END TIME	The time that the agent logged off.
STAFFED TIME	The time spent logged on to the system.

Table 46 lists the field descriptions for the workday periods.

Table 46: Workday periods (Part 1 of 2)

Field	Description
START TIME	The time of the first logon of the day.
END TIME	The time of the last logoff of the day.
LOGIN DURATN	The time between the first logon and the last logoff of the day.

Table 46: Workday periods (Part 2 of 2)

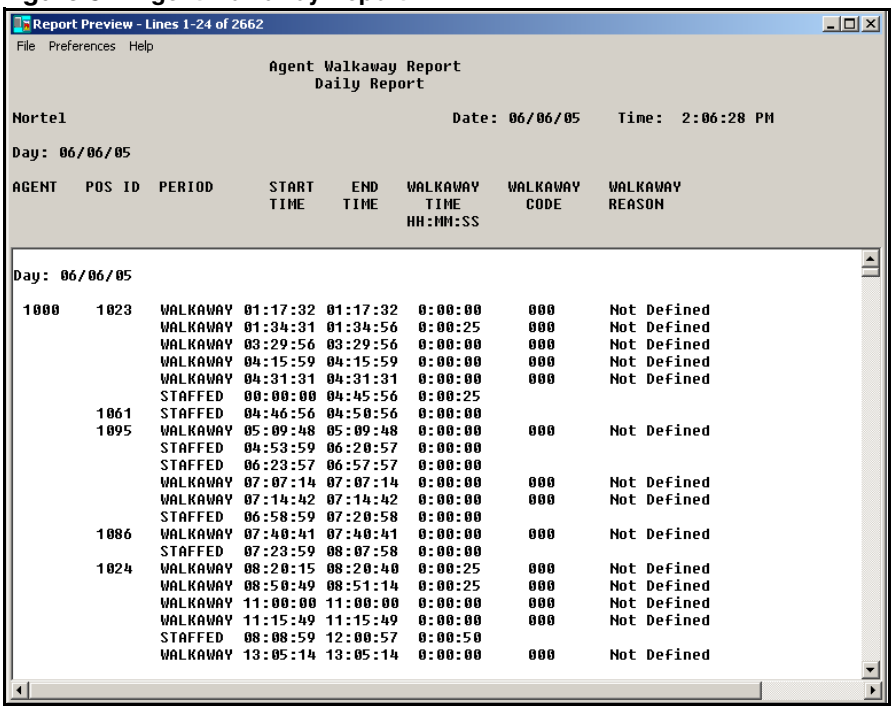
Field	Description
STAFFED TIME	The sum of all the logged-on times during the day.
% LOGIN DURATN STAFFED	The staffed time as a percentage of the logon duration time.
WALKAWAY TIME	The time spent by the agent in walkaway states.
% STAFFED TIME IN WALKAWAY	The percentage of the total staffed time that the agent spent in walkaway states.

Agent Walkaway Report

The Agent Detail Report shows the time and length of each agent's logon, logoff, and walkaway activities during the day. You can use this report to verify shift times, break times, and walkaway times.

Figure 52 shows an example of the Agent Walkaway Report.

Figure 52: Agent Walkaway Report



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Agent Walkaway Report
Daily Report

Nortel Date: 06/06/05 Time: 2:06:28 PM

Day: 06/06/05

AGENT	POS ID	PERIOD	START TIME	END TIME	WALKAWAY TIME HH:MM:SS	WALKAWAY CODE	WALKAWAY REASON
Day: 06/06/05							
1000	1023	WALKAWAY	01:17:32	01:17:32	0:00:00	000	Not Defined
		WALKAWAY	01:34:31	01:34:56	0:00:25	000	Not Defined
		WALKAWAY	03:29:56	03:29:56	0:00:00	000	Not Defined
		WALKAWAY	04:15:59	04:15:59	0:00:00	000	Not Defined
		WALKAWAY	04:31:31	04:31:31	0:00:00	000	Not Defined
		STAFFED	00:00:00	04:45:56	0:00:25		
	1061	STAFFED	04:46:56	04:50:56	0:00:00		
	1095	WALKAWAY	05:09:48	05:09:48	0:00:00	000	Not Defined
		STAFFED	04:53:59	06:20:57	0:00:00		
		STAFFED	06:23:57	06:57:57	0:00:00		
		WALKAWAY	07:07:14	07:07:14	0:00:00	000	Not Defined
		WALKAWAY	07:14:42	07:14:42	0:00:00	000	Not Defined
		STAFFED	06:58:59	07:20:58	0:00:00		
	1086	WALKAWAY	07:40:41	07:40:41	0:00:00	000	Not Defined
		STAFFED	07:23:59	08:07:58	0:00:00		
	1024	WALKAWAY	08:20:15	08:20:40	0:00:25	000	Not Defined
		WALKAWAY	08:50:49	08:51:14	0:00:25	000	Not Defined
		WALKAWAY	11:00:00	11:00:00	0:00:00	000	Not Defined
		WALKAWAY	11:15:49	11:15:49	0:00:00	000	Not Defined
		STAFFED	08:08:59	12:00:57	0:00:50		
		WALKAWAY	13:05:14	13:05:14	0:00:00	000	Not Defined

Each agent has walkaway periods, staffed periods, and workday periods. Multiple staffed periods can exist if the agent has logged on and logged off multiple times. An agent can have multiple walkaway periods by entering walkaway states multiple times. The workday period is a summary line for all staffed periods during the day.

Table 47 lists the field descriptions for the walkaway periods.

Table 47: Walkaway periods

Field	Description
START TIME	The time that the agent entered the walkaway state.
END TIME	The time that the agent returned from the walkaway state.
WALKAWAY CODE	The walkaway code that was entered by the agent.
WALKAWAY REASON	The walkaway reason that is assigned to the walkaway code.

Table 48 lists the field descriptions for the staffed periods.

Table 48: Staffed periods

Field	Description
START TIME	The time that the agent logged on to the system.
END TIME	The time that the agent logged off of the system.
STAFFED TIME	The time spent logged on to the system.

Table 49 lists the field descriptions for the workday periods.

Table 49: Workday periods

Field	Description
START TIME	The time of the first logon of the day.
END TIME	The time of the last logoff of the day.

Agent Trace Report

The Agent Trace Report shows the time and activity of each agent's calls during the day. You can use this report to verify agent activity and call handling.

Figure 53 shows an example of the Agent Trace Report.

Figure 53: Agent Trace Report

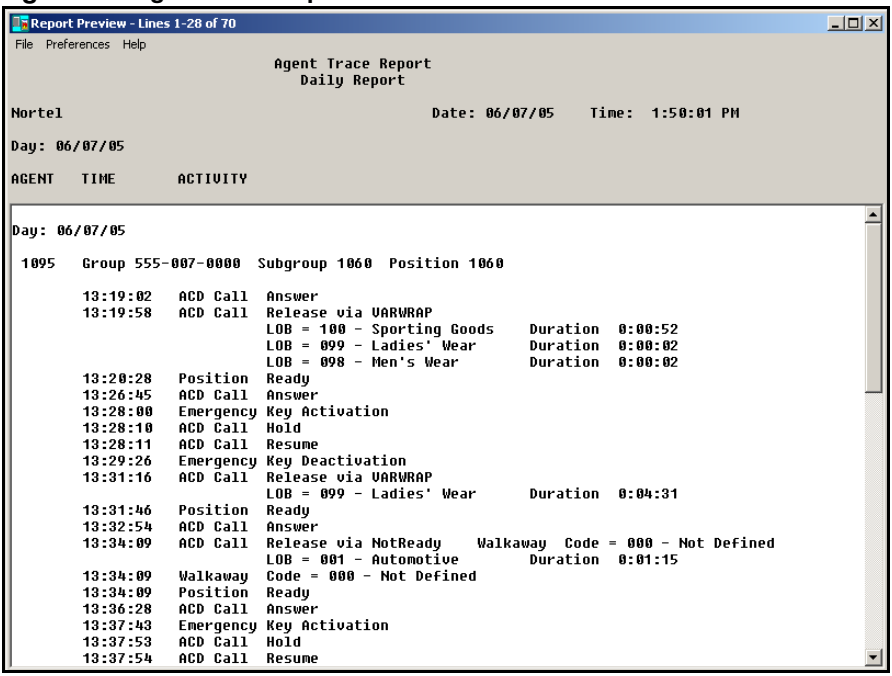

Table 50 lists the field descriptions for the walkaway periods.

Table 50: Agent Trace Report fields for walkaway period

Field	Description
AGENT	The ID of the agent.
TIME	The time that the agent began the activity.
ACTIVITY	The call activity performed by the agent.

Appendix B

Supported data streams

Table 51 on page 188 identifies the BCS 35 and BCS 43 messages supported by CC MIS.

Notes:

1. For an explanation of the use and content of the ACD MIS messages, consult one of the following documents:
   - *DMS-100/SL-100 ACD MIS Interface Specification* (NIS Q209-2), Version 9.0 for BCS 35
   - *DMS-100/SL-100 ACD MIS Interface Specification* (NIS Q209-2), Version 11.0 for BCS 43
2. Nortel recommends that you use the highest supported protocol version whenever possible.
3. To use the re-enqueue statistics, the switch protocol must be set to BCS 43.

Table 51: Supported ACD MIS datastream messages supported (Part 1 of 5)

Category	Message	Supported
Switch control	EndOfInit	yes
	SendThrottle	yes
Initialization data	SubPoolData	yes
	ACDGroupData	yes
	ACDVFGData	yes
	AudioList	yes
	RouteList	yes
	ACDSupplDNData	yes
	ACDSubGroupData	yes
	AgentPositionData	yes
	ACDNetworkGroupRouting Data	yes
ACD VFG OM	ACDVFGOM	yes
ACD Event	ACDCallOffered	yes
	ACDCallAnswered	yes
	ACDCallNetworkAnswered	yes
	ACDCallAbandoned	yes
	ACDCallReleased	yes
	ACDCallBlocked	yes
	AgentPosition	yes
	ACDCallTransferred	yes
	ACDCallParked (BCS 35)	no

Table 51: Supported ACD MIS datastream messages supported (Part 2 of 5)

Category	Message	Supported
Load Management Event **Note:** Messages with an asterisk (*) indicate that changing the value of these variables on the switch does not update the CC MIS. CC MIS does not change because no facility exists that generates these messages to CC MIS.	AgentPosReassigned	yes
	ACDDNReassigned	yes
	PrioProChanged*	yes
	MaxWaitChanged	yes
	TMDelOvflChanged*	yes
	OvflTypeChanged*	yes
	ServiceChanged*	yes
	MaxCqSizeChanged	yes
	MaxVqSizeChanged*	yes
	ACDDNPrioChanged	yes
	AudioGroupChanged	yes
	RANTHChanged	yes
	RIChanged	yes
	ThRouteChanged	yes
	NSRouteChanged	yes
	ACDDNNameChanged	yes
	ACDDispDigsChanged	yes
	MSQSThresholdChanged	yes
	EhOvflChanged	yes
	CIFROUTEChanged*	yes
	NSAudioGroupChanged*	yes
	CTQSizeChanged	yes
	DefLOBChanged	yes

Table 51: Supported ACD MIS datastream messages supported (Part 3 of 5)

Category	Message	Supported
Load Management Event (continued)	WRPTIMEChanged	yes
	MSQSTypeChanged	yes
	TMDTHRTEChanged	yes
	TMDTHTIMEChanged	yes
	FIAUDIOGropChanged	yes
	FOAUDIOGroupChanged	yes
	ORGANNChanged	yes
	ACTIVATEChanged	no
	RENQTOUTChanged	yes
	RENQRTEChanged	yes
	RENQAUDGRPChanged	yes
DSP Control	AssociatePool	yes
	RequestInit	yes
	StopInit	yes
	StartTransfer	yes
	StopTransfer	no
Inquire Switch Data	QueryDateAndTOD	yes
	RequestAudioInfo	yes
	RequestRouteInfo	yes

Table 51: Supported ACD MIS datastream messages supported (Part 4 of 5)

Category	Message	Supported
Load Management Request	ReassignAgentPos	yes
	ReassignACDDN	yes
	ChangeSubPool	no
	ChangePrioPro	yes
	ChangeMaxWait	yes
	ChangeWaitThreshold	yes
	ChangeTmDelOvfl	yes
	ChangeOvflType	yes
	ChangeService	yes
	ChangeMaxCqSize	yes
	ChangeMaxVqSize	yes
	ChangeQueueThreshold	yes
	ChangeACDDNPrio	yes
	ChangeAudioGroup	yes
	ChangeRANTH	yes
	ChangePWF	yes
	ChangeRI	yes
	ChangeThroute	yes
	ChangeNSRoute	yes
	ChangeACDDNName	yes
	ChangeACDDispDigs	yes
	ChangeMSQSThreshold	yes
	ChangeEhOvfl	yes

Table 51: Supported ACD MIS datastream messages supported (Part 5 of 5)

Category	Message	Supported
Load Management Request (continued)	ChangeCIFRoute	yes
	ChangeNSAudioGroup	yes
	ChangeCTQSize	yes
	ChangeBestGrp	yes
	ChangeSrvRate	yes
	ChangeNumIdle	yes
	ChangeTimeIdle	yes
	ChangeDefLOB	yes
	ChangeWRPTIME	yes
	ChangeMSQSType	yes
	ChangeTMDTHRTE	yes
	ChangeTMDTHTIME	yes
	ChangeFIAUDIOGroup	yes
	ChangeFOAUDIOGroup	yes
	ChangeORGANN	yes
	ChangeACTIVATE	no
	ChangeRENQTOUT	yes
	ChangeRENQRTE	yes
	ChangeRENQAUDGR	yes

Call Center Management Information System

CC MIS System Description

Publication number:	297-2671-150
Product release:	6.0.1
Document release:	Standard 1.0
Date:	May 2007

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