

**297-2671-211**

# **Call Center Management Information System**

## **Release Notes**

Release 6.0.1

Standard 1.0

May 2007

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**NORTEL**

# Call Center Management Information System

## Release Notes

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## **European Regulatory Compliance and CE Marking**

The equipment is CE marked, identifying compliance with the relevant EU Directives, 89/336/EEC for ElectroMagnetic Compatibility and 73/23/EEC for Safety.

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

<b>May 2007</b>	Standard 1.0 issued for CC MIS Release 6.0.1
<b>June 2005</b>	Standard 1.0 issued for CC MIS Release 6.0.
<b>January 2003</b>	Standard version issued for CC MIS Release 5.2.2.
<b>October 2002</b>	Standard version issued for CC MIS Release 5.2.1.



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# Chapter 1

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## 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](http://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 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](http://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](http://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

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## About this document

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## Subject

This Nortel Technical Publication (NTP) serves as the Release Notes for Call Center Management Information System (CC MIS) Release 6.0.1. You can use this document in conjunction with other NTPs issued in support of CC MIS.

## Applicable systems

This documents applies to systems running the CC MIS server and client software.

## Intended audience

This NTP is intended for individuals who are interested in the features and capabilities of the CC 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 4, “Software release history”—Provides a description of the features that were added or changed throughout the software releases.
- Chapter 5, “Installation overview”—Provides a brief overview of the installation of the CC MIS server and client software.
- Chapter 6, “Fixes”—Provides a list of solved Change Requests (CR).
- Chapter 7, “Known problems”—Presents any known problems within the software release.

## Related information

This section explains where you can find additional information about CC MIS.

### NTPs

For more information about CC MIS, see the following NTPs, which contain additional information to supplement this document:

- *CC MIS System Description (297-2671-150)*
- *CC MIS Getting Started Guide (297-2671-175)*
- *CC MIS Installation and Maintenance (297-2671-545)*

### Online

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

[www.nortel.com/documentation](http://www.nortel.com/documentation)

### CD-ROM

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



# Chapter 3

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## Introduction

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# Type of release

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 in which CC MIS Release 6.0 software operates on hardware that is supplied (and maintained) by the customer. This hardware is also known as platform vendor independent (PVI) hardware.

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

## CC MIS server

The CC MIS server must be running Red Hat Enterprise Linux Version 3 or Version 4. 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.

## CC MIS clients

Each CC MIS client must run one of the following operating systems:

- Windows XP Professional
- Windows 2000 Professional

### **ATTENTION**

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Windows Vista is not currently supported.

# CC MIS Software CD-ROM

The CC MIS Software CD-ROM for Release 6.0.1 includes the following:

- CC MIS server application software
- CC MIS client application software
- CC MIS NTPs
- Preinstallation script (for server installation)
- Adobe Acrobat Reader 5.0.5 (for viewing NTPs)

**Note:** Adobe Acrobat Reader is required to view the NTPs on the CC MIS Software CD-ROM. Version 5.0.5 of the Acrobat Reader software is included on the CD-ROM.

# Optional CC MIS features

The following features are optional purchases. This document and related CC MIS documents address these features. Verify with the distributor whether your system is equipped with these features.

- Multiple Partitions
- Multiple Data Links
- Language Options (French and Spanish)
- Link Redundancy
- Terminal Capacity
- Networking
- Simple Network Management Protocol (SNMP)

# Chapter 4

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## Software release history

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# Introduction

This chapter describes the software changes that occurred from Release 3.0 to Release 6.0. It includes the changes made or features added in the indicated release.

# Release 3.0

Release 3.0 provided the following new features and enhancements:

- Multiple Tenant Partitions (This is a purchasable item.)
- changes in Configuration Control windows
- Configuration Updates moved to the Maintenance interface
- permanent Agent Detail window
- enhanced Agent Status window
- supplemental DN pegging
- Avg Not Rdy Formula changed
- support for 2-GB hard drive
- maintenance printer can use the parallel port
- Disk Mirroring (implemented using a RAID hardware.)
- Posns Waiting and Agents Available
- user documentation enhancements

The following features were added in Release 3.0 and are standard with Release 4.0.

- Automatic Position Reassignment (APR)
- Batch Change Supplement (BCS) 35 support
- enhanced agent and group status
- shift and 24-hour real-time statistics
- increased report definitions (up to 500)
- Windows-based Configuration Control screens
- One partition

# Release 3.1

CC MIS Release 3.1 provided the following changes and enhancements:

- **Employee ID**—The Employee ID field was added to the Agent Definition screen. In this field, you can enter an employee ID for each agent (up to 14 characters). You can then use this employee ID as a key in custom tabular and graphical reports. The Employee ID field also appears in the Agent Database report.
- **Group Ordering**—With this feature, supervisors can set a preference for the order in which Automatic Call Distribution (ACD) groups are presented in reports and real-time displays (Queue Statistics and Agent Status).
- **Flexible Directory Number (DN) formatting**—With this feature, a customer-defined template determines DN formatting. Leading zeros are no longer removed from the DNs that are less than 10 digits.
- **Real-time Display Refresh enhancements**—Real-time displays (24-hour and shift) are no longer initialized to zero when CC MIS shuts down. These statistics are restored immediately following system startup. (This only applies to controlled shutdowns.)
- **Updates to statistics names and headings.**

## Release 3.2

Release 3.2 provided the following new features and enhancements:

- Simple Network Management Protocol (SNMP) feature—The SNMP feature was added to the Supervisor and Maintenance interfaces. With this feature, managers can view information about network components. This is a purchasable option.

**Note:** Due to the technical nature of the SNMP capability, Nortel recommends that administrators and users of this feature have a background in network management and the SNMP protocol.

You can access the SNMP feature in the Maintenance interface from the Configuration menu. In the Supervisor interface, the feature is enabled in the Privilege Level Definition window and is accessed by the supervisor using the Displays > Alarms option from the CC MIS main menu.

This is the starting point for all SNMP-related activities at the partition level, including the following:

- alarm definition and maintenance
- SNMP community setup and maintenance
- SNMP Management Information Base (MIB) file transfer
- Forced Agent Timers—Agent timers were added for agents in a forced state in the Agent Status screen.
- Modified administration screens
- Enhanced user documentation
- Enhancement to spectrum data—Prior to Release 3.2, spectrum data was normalized and did not always add correctly. Starting in Release 3.2, the spectrum data is no longer normalized.
- Two new system reports—Alarm Definition and Schedule Definition database system reports.

- Enhancement in display of ACD Group names in screens and reports
- New ACD-DN key fields (AGT ID and AGT NAME)
- Network Time Protocol—Administrators can now specify reliable time servers for the CC MIS system.

## Release 3.3

Release 3.3 provided the following new features and enhancements:

- support for French
- enhancement to Walkaway Code treatment
- fixes for reported problems

# Release 4.0

Release 4.0 provided the following changes and enhancements:

- Corrections for problems reported in CC MIS Releases 3.1 and 3.2.

## Notes:

1. Text interface was removed and is no longer supported.
2. Graphic reports must be sent to PC-attached printers.

## Maintenance interface

General changes to the Maintenance interface include:

- Physical Node Status—The Physical Node Status was added in View System Monitor to assist in diagnosing CC MIS networking problems.
- System Identification—Maintenance menus now include the system name in the title, for easy system identification.
- Logon Support—The new Physical Network Login screen provides access for logging on to other nodes in the CC MIS physical network.
- Backup and Restore—The Backup and Restore functions were modified to reflect the change in the name of the System Database to the Definitions Database.

The changes made to the Configuration section of the Maintenance interface include:

- Networked CC MIS Configuration—Two new customer options were added to the install tape to indicate whether a physical node is a Network Node and the maximum number of Network Access Partitions (NAP) that can be configured on the node.
- Network Name—This field was added to System Configuration to define the network and provide network security.

- **New Configuration Commands**—The Configuration screen was updated to include the Physical Network Configuration command.
- **Physical Network Definition**—The nodes that comprise a CC MIS physical network are defined using the new Physical Network Configuration screen.
- **Switch Link Configuration**—The maximum number of X.25 links increased to four links. The Connection to Switch parameter was added to the link definition to indicate whether a live link uses modems or a direct connection to connect to the switch. This parameter does not apply to simulator links. A new field was added so you can synchronize the CC MIS system time to the Digital Multiplex Switch (DMS) time. A time zone adjustment field was also added to make necessary adjustments for time zone differences.
- **Network Access Partitions (NAP)**—The Partition Configuration supports NAP configuration. The NAP must be defined on a network node. The number of NAPs allowed is controlled by the value entered in the Maximum NAPs field. NAPs are used to access local partitions in a CC MIS network.

**Note:** NAPs can only be set to precut and product modes.

- **Virtual Network Configuration**—The Virtual Network Configuration screen was added to define the partitions/nodes that comprise a virtual network associated with a NAP.
- **Master Privilege Definition**—Supervisor privileges can be restricted on each partition using the new Master Privilege screen and a master supervisor privilege definition.
- **Configuration Reports**—Several configuration reports were added and existing reports were updated to reflect the changes to the Configuration section.

The following reports are new:

- Master Privilege Definition
- Master Privilege Override
- Virtual Network Configuration
- Physical Network Configuration

The following reports are modified:

- Partition Options
- Partition Configuration
- Port Allocation
- System Configuration
- Switch Link Configuration
- Storage Calculator

## Supervisor interface

Changes to the Supervisor interface include:

- Networked CC MIS Real-Time Statistics—Changes were made to load management and real-time statistics and screens to allow for separate or consolidated viewing of data from all partitions in a CC MIS network. With this enhancement, network supervisors can perform the same load management functions as local supervisors. The Configuration Control screens display a Node field and the Insert windows allow supervisors to select a node and insert groups on that node.
- Networked CC MIS Historical Statistics—With enhancements to reporting capability, supervisors can now generate reports that contain data from multiple CC MIS nodes. This network enhancement is available to supervisors who are logged on to a NAP.
- Windows completion—All screens (remaining emulation mode windows) in the CC MIS Supervisor interface are now Windows-based screens.
- Enhanced wallboard support—The wallboard interface is enhanced to support multiline messages, multicolor characters, multithreshold variables within messages, and visual and audible alarms. The ability to set audible alarms was also added to the wallboard interface. These enhancements can be used on the new Spectrum Wallboards available for Release 4.0. Three wallboard models are supported in Release 4.0: Nortel (Spectrum), Daktronics, and Generic. Nortel wallboards can also be attached to an available serial port on a supervisor PC.

- Enhanced capabilities for Daktronics wallboards—The following enhancements were made for the Daktronics wallboards:
  - new presentation modes
  - increased message lengths
  - long messages wrap and then scroll onto the wallboard display
- Generic interface—A generic interface is provided for wallboards other than Daktronics or Nortel. With this interface, other wallboard vendors can obtain real-time information for display on their equipment. This is configured through the Maintenance interface as a generic wallboard. This interface formats the output in a VT220 compatible style, using a minimal set of terminal escape sequences.
- Agent location by Login ID—Provides a Find command in the agent status display to locate an agent or position in the display.
- Multiple DN key support—CC MIS now correctly reports on positions with up to two simultaneous secondary DN calls active.
- Additional shift and 24-hour statistics—Several new shift and 24-hour statistics were added to the CC MIS product. The new statistics are:
  - MAX TOF DELAY
  - MAX ANS DELAY
  - MAX ABD DELAY
  - TOT TOF DELAY
- Walkaway Statistics by Agent or ACD group—The walkaway statistic is enhanced so that walkaway statistics can be stored by agent or by ACD group. This enhancement also affects walkaway reporting, as you can specify an agent or agents to include in the Walkaway report. (The new settings are available on the Storage Calculator screen.)
- Walkaway Code Treatment—A new field was added to the Walkaway Code Definition window where you can specify how the code is pegged and reported. Options on the menu are Not Ready and Walkaway.
- Flexible Interval Definition—With the configurable intervals feature, you can change the interval length for each hour of the day on a partition-by-partition basis. Interval lengths available are 5, 10, 15, 30, and 60

minutes. You can turn off data collection for any hour of the day by entering an interval length of 0 minutes.

- **Report Services**—Reports can be sent to e-mail addresses or faxed. These enhanced options are in addition to printing to a file or directing the report to a printer. (Note: The e-mail and fax capabilities require Microsoft Exchange.) A Report Status Logs window was added where you can view the status of all requested reports and cancel pending reports.
- **Printing of Graphic Reports**—Graphic reports can only be printed to PC-attached printers.
- **Increased Maximum Capacities**—The maximum number of groups increased to 512 and the maximum number of agents increased to 5000. The maximum number of ACD-DNs is 8704 and the number of agent definitions is 9999.
- **Increased Call Rates**—Call rates (Busy Hour Call Attempts [BHCA]) for different processors in Release 4.0 are as follows: 100 000 for 50 MHz, 48 000 for 33 MHz, and 35 000 for 25 MHz.
- **Automated upgrades for supervisor PCs**—PCs running Release 3.2 or later can be upgraded by downloading the upgrade from their VME host. This upgrade is automated in that no disk is required and the system prompts you with the choice to upgrade to the new version.
- **Removal of Network Time Protocol**—The Network Time Protocol was removed and the ability to keep CC MIS synchronized with the switch was added.
- **Color Customization**—On systems that support more than 256 colors, the Color Maps in the Color Selection dialogs for both printers and displays permit customization of the colors. You can access the Color dialog by clicking on the Customize button that is displayed on the Color Selection window.

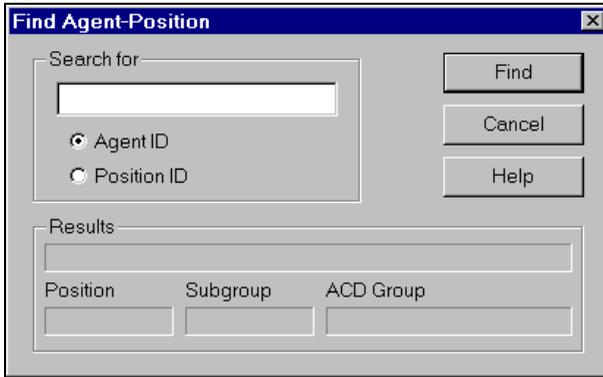
## Key features added in Release 4.0

This section describes some key features that were added to the Supervisor interface in Release 4.0 and are present in CC MIS Release 5.0.

### Find Agent-Position dialog box

You can locate an agent or position using the View > Find command on the Agent Status window. Figure 1 shows the Find Agent-Position dialog box.

**Figure 1: Find Agent-Position dialog box**



### Dual DN

You can view the status of two DN keys by using the Preferences > Dual DN Status option. When activated, a second timer for the second DN is displayed (see Figure 2).

**Figure 2: Dual DN**

ACD GROUP	POSN	STATUS	DURATION	LC
Customer Service	1178	WAITING	01:39	11:14:21 PI
	1179	ACDH /DNIH /DNO	02:08 /00:27 /00:22	11:14:21 PI
Investments	1180	WAITING	02:53	11:14:21 PI

## Report Status Logs window

After you request a report, you can view the status of the report or cancel the pending report using the Report Status Logs window (see Figure 3). You can access this window from the Reports menu on the CC MIS main window.

**Figure 3: Report Status Logs**

Request Time	Status	Type	Report Name	Destina...
03/24/97 9:57:36 AM	Complete	Print	Julie_walk	DeskJe...
03/24/97 9:49:53 AM	Complete	Print	Preview Report	DeskJe...
03/24/97 9:35:43 AM	Complete	Print	Preview Report	DeskJe...
03/21/97 7:15:37 PM	Generating	Print	TABULAR FORMAT DATABASE REPORT	HP Las...
03/21/97 7:15:22 PM	Complete	Print	INTERVAL CONFIGURATION DATABASE REPORT	HP Las...
03/21/97 3:42:26 PM	Complete	Print	ACD Group by Line of Business Code Report	DeskJe...
03/21/97 3:32:20 PM	Complete	Print	INTERVAL CONFIGURATION DATABASE REPORT	HP Las...
03/21/97 3:27:48 PM	Complete	Print	INTERVAL CONFIGURATION DATABASE REPORT	HP Las...

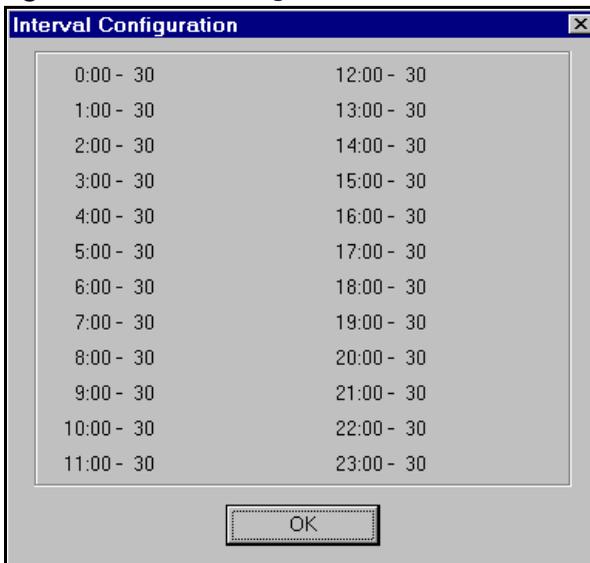
Logs: 8 Selected: 0

## Interval Configuration

You can use Interval Configuration to configure intervals for each hour of the day in the Maintenance interface. You can view the intervals used by your partition from the Report Parameters Definition window by selecting the Reports > Intervals command.

The Interval Configuration dialog box appears (see Figure 4). In Release 4.0, you can configure the following intervals: 5, 10, 15, 30, and 60 minutes.

**Figure 4: Interval Configuration**



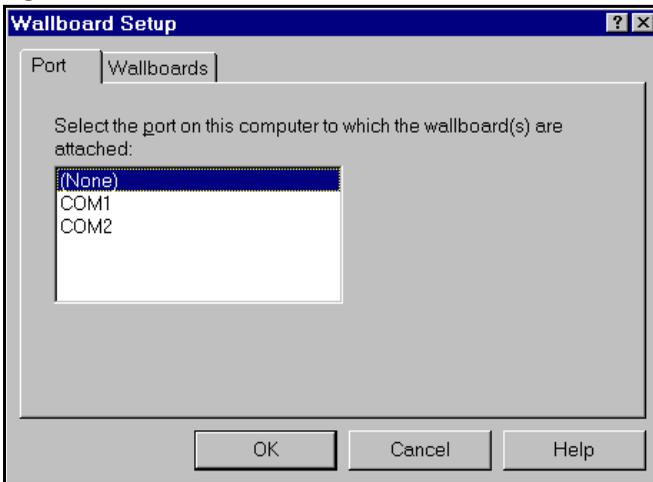
## Wallboard Setup window

You can now attach wallboards to the supervisor's PC (known as PC-attached wallboards). Wallboards supported in Release 4.0 include Nortel, Daktronics, and generic.

**Note:** Only Nortel wallboards can be connected as PC-attached wallboards.

Use the Session > Setup > Wallboards command to access the Wallboard Setup dialog box (see Figure 5).

**Figure 5: Wallboard Setup**



# Release 4.1

Release 4.1 provided the following changes.

- Support for the PowerPC (AIX) platform was added.
- The Switch Code field was added to Switch Link Configuration to handle duplicate DN's that are datafilled on multiple switches in a private network when using the CC MIS Networking feature.
- Support was added for Permanent Virtual Circuit (PVC) X.25 connections to the switch for increased link throughput. With these changes, CC MIS can connect to the switch by means of the new Input/Output Module-(IOM) based high speed X.25 interface. (The following port parameters were added for X.25 links: Line Type, Clock, and Virtual Circuit Type. These changes provide enhanced support for direct X.25 connections to the switch and to the IOM-based high speed [512 KB/s] X.25 switch interface.)
- An Analyze Configuration function was added to the Storage Calculator. When you press this function key, the Storage Calculator analyzes some of the values for your system, based on data received from the switch and your system configuration.
- Direct switch connection capability was enhanced so that a clock rate can be specified. Note that on the PowerPC, the DTE/DCE setup for a port is determined from the hardware and cannot be changed in the Switch Link Configuration screen as it can on the 88K platform.

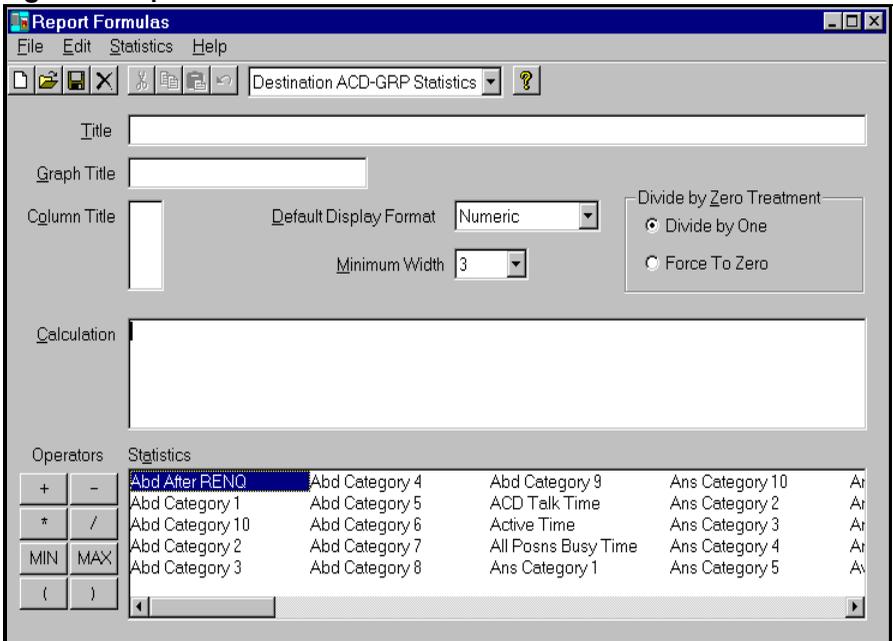
# Release 5.0

Release 5.0 provided the following changes:

- Enhanced handling of ACD re-enqueued calls adds the following statistics to the formulas list in the Report Formulas definition window:
  - Abd After RENQ
  - Num RENQ Routed
  - RENQ Via Force Out
  - RENQ Via Not Ready
  - Num RENQ Rerouted

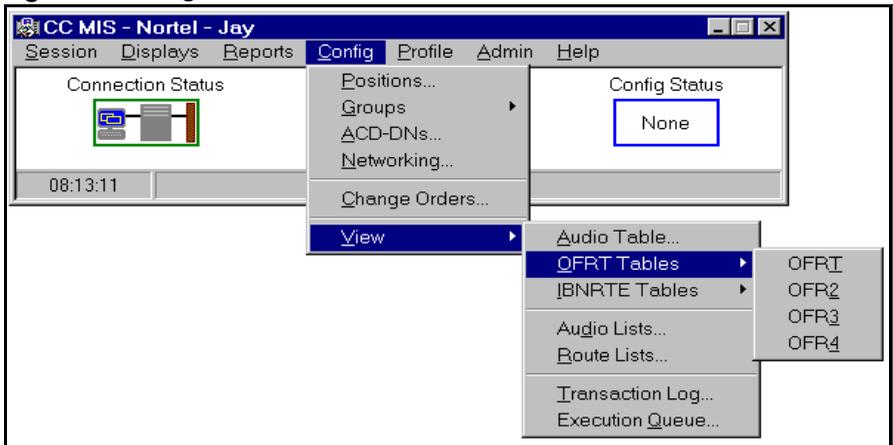
These formulas are available under the appropriate statistics groups in the Report Formulas window (see Figure 6).

**Figure 6: Report Formulas window**



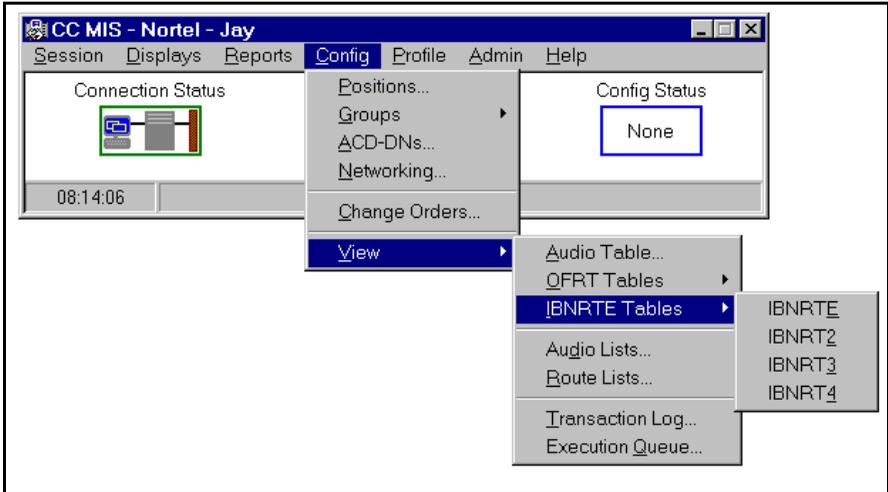
- The following RENQ fields were added to the Configuration Control - Special Routing window and to the Configuration Control - Change Orders > Special Routing window:
  - Re-Enqueue Time—The maximum amount of time in seconds a re-enqueued call remains queued before being rerouted to the re-enqueue route (range: 0–1800).
  - Re-Enqueue Route—The re-Enqueue route consists of table (values: OFRT, IBNRTE) and index (range: 0–1023).
  - Re-Enqueue Audio Table—Audio group used to provide re-enqueue announcements to callers prior to rerouting the call to the re-enqueue route (range: 1–512).
- The BCS 43 switch protocol version is now supported and is required to use the previously listed features.
- The Num ACD Hold Acts statistic was added to the Report Formulas definition window and appears in the formulas list under the appropriate statistics group. This new statistic is now used in the average time spent on hold standard formula instead of number of calls answered. Thus any report using this standard formula can show lower average hold times.
- You can access additional OFRT tables (OFR2, OFR3, and OFR4) using the Config > View > OFRT Tables submenu (see Figure 7).

**Figure 7: Config > View > OFRT Tables submenu**



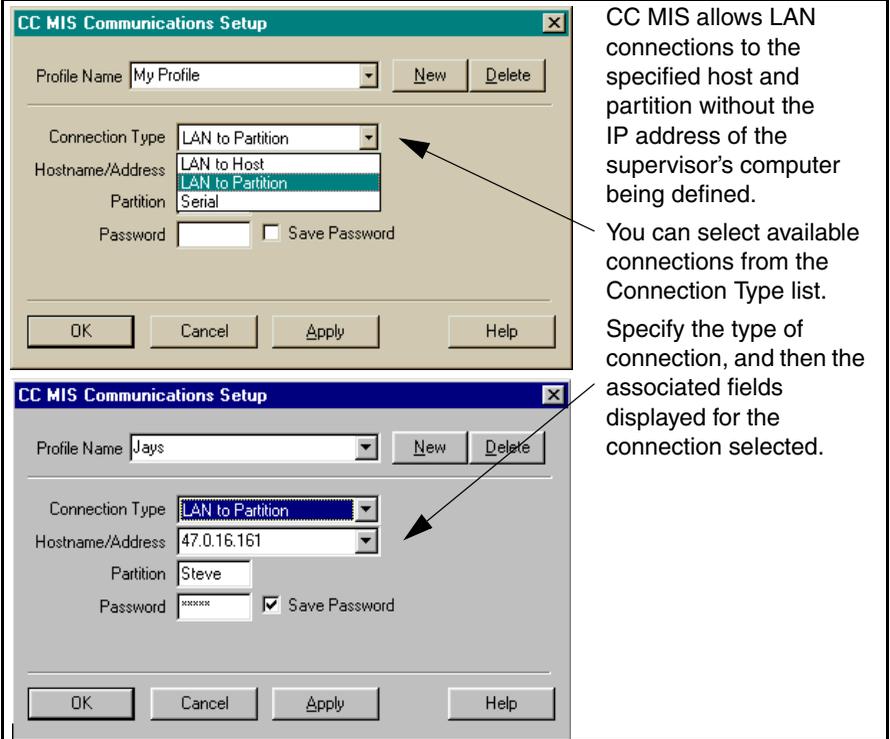
- You can access additional IBNRTE tables (IBNRTE2, IBNRTE3, and IBNRTE4) using the Config > View > IBNRTE Tables submenu (see Figure 8).

**Figure 8: Config > View > IBNRTE Tables submenu**



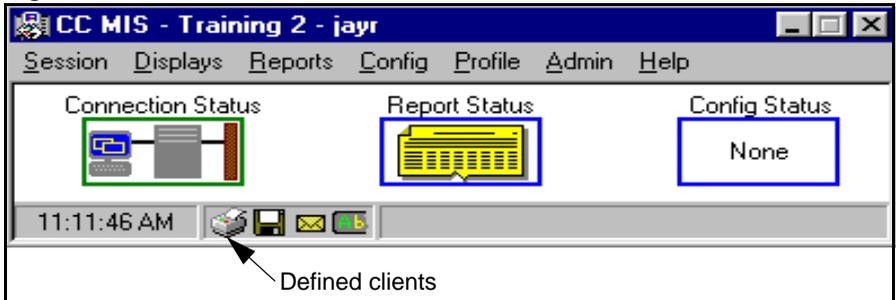
- You can now change route entries to the new tables from the Groups > Time Overflow, Groups > Overflow Targets and the Groups > Special Routing windows in Configuration Control.
- You can now include entries for the new IBNRTE and OFRT tables in the System Report > Configuration Report.
- Addition of the Dynamic Host Configuration Protocol (DHCP) function, with which CC MIS can connect to a LAN without the requirement of entering an IP address. This feature makes use of the Session > Setup > Communications command. With this command, you can define several connection profiles and start a new CC MIS session with the profile of your choice. (Multiple sessions connected to different partitions are permitted). When defining a profile, select the connection type, specify the Host IP address, and enter the partition name and password (see Figure 9).

**Figure 9: CC MIS Communication Setup**



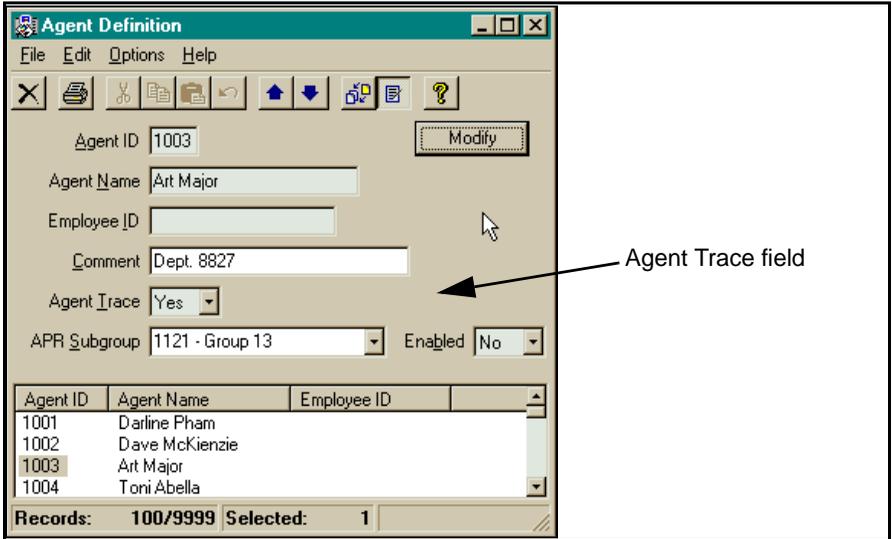
- Enhancements were made to the Session > Setup > Communication screen.
- The CC MIS main window now displays defined clients (see Figure 10).

**Figure 10: Defined clients**



- The Agent Trace option was added to the Admin > Agent Definition window (see Figure 11).

**Figure 11: Agent Definition**



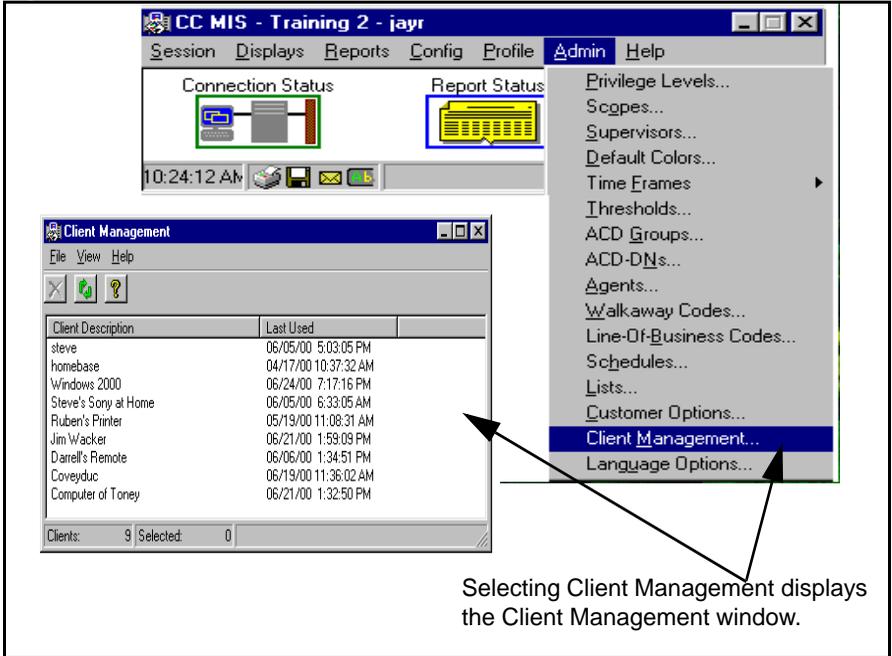
- An Agent Trace Report is now available from the Report parameters window (see Figure 12).

**Figure 12: Agent Trace Report**

Agent Trace Report			
Daily Report			
Training 2		Date: 07/12/00	Time: 10:09:49 AM
Days: All			
AGENT	TIME	ACTIVITY	
Day: 07/10/00			
1001	Group 555-011-0000 Subgroup 1100 Position 1101		
	14:58:04	ACD Call	Hold
	14:58:05	ACD Call	Resume
	14:58:05	ACD Call	Release
		LOB = 001 - Not Defined Duration 0:01:16	
	14:58:14	ACD Call	Answer
	14:58:41	ACD Call	Hold
	14:59:01	Transfer	In SDN to Agent
		From Group 555-001-0000 Position 1009	
	14:59:01	DN1 In	Answer
	14:59:01	DN1 In	Release
	14:59:01	ACD Call	Resume
	14:59:01	ACD Call	Release

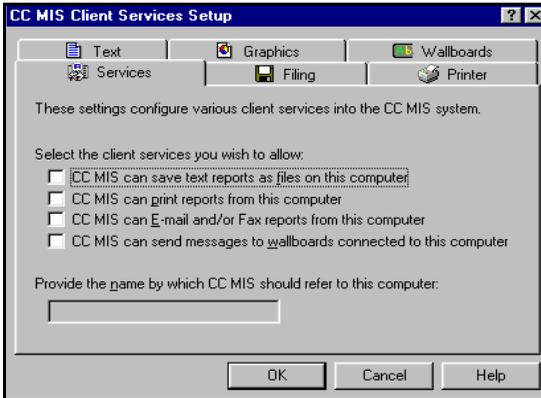
- Client Management was added to the Admin menu. Select Admin > Client Management to display the Client Management window (see Figure 13).

**Figure 13: Admin > Client Management**



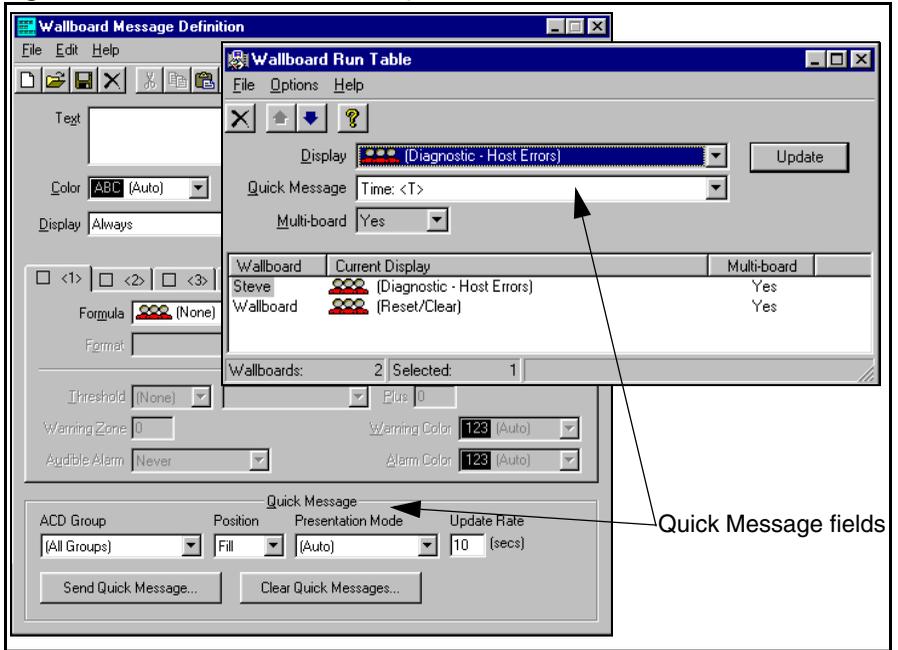
- Enhancements were made to the CC MIS Client Services tab window (Session > Setup > Client Services). Select the clients under the Services tab to display the clients on the CC MIS main window (see Figure 14).

**Figure 14: CC MIS Client Services Setup**



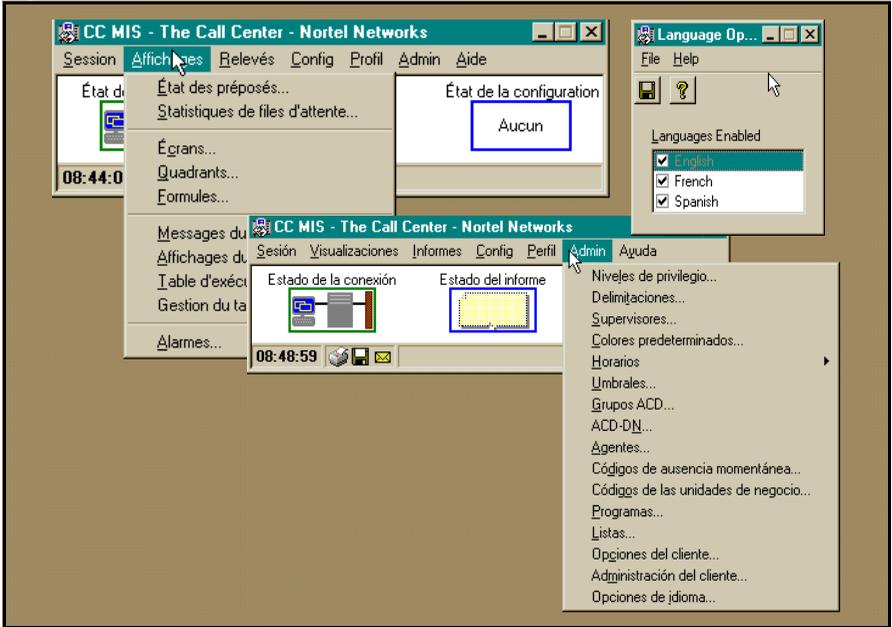
- You can now send Wallboard Quick Messages from the Wallboard Message Definition and Wallboard Run Table windows (see Figure 15).

Figure 15: Wallboard Quick Message fields



- Canadian French and Latin American Spanish languages are now supported in addition to English (see Figure 16).

**Figure 16: Language Options**



- You can use keycodes to activate optional system features. A prompt to enter a keycode appears whenever a system is upgraded from 3.x or 4.x to 5.x, or when 5.x is installed on a new system.
- A method for connecting Windows client PCs to the system over a LAN allows PCs configured to use DHCP to access the CC MIS host. This same feature allows multiple concurrent Windows sessions to access different partitions on the same CC MIS host.
- An Agent Detail Trace report was added to capture detailed agent activity for selected agents.

## Maintenance interface

In Release 5.0, the Maintenance interface provided the following changes:

- Two additional fields were added to the Storage Calculator (Agent Trace Data and Disk Space for Agent Trace).
- Terminology change on the Partition Configuration screen (LAN Terminals changed to Static LAN Terminals).
- The Keycode feature was added so that customer software can be upgraded remotely using a keycode.

# Release 5.1

CC MIS Release 5.1 provided the following changes and enhancements (Release 5 features require BCS 43).

**Note:** In CC MIS 5.x, a supervisor terminal can run multiple sessions of CC MIS, with each session connected to a different partition. This is accomplished by changing the IP address in the Communications Setup window prior to starting a new session.

## Supervisor interface

In Release 5.1, the Supervisor interface provided the following changes:

- Reports can span across midnight (for both interval and shift). Shifts can be defined to span across midnight. You can specify shifts that span across midnight on the Shift Definition screen and you can specify interval and shift ranges that span across midnight on the Report Definition screen.
- A DN masking option in the Customer Options screen allows masking of DNs in real-time displays and reports.
- A Subgroup Detail screen was added to Agent Status. To access this screen, right-click a subgroup in the Navigator pane of the Agent Status window.

**Figure 17: Subgroup Detail**

STATUS	POSITIONS	STATUS	POSITIONS
ACD	0	DN IN	0
ACD HOLD	0	DNI HOLD	0
NOT RDY	0	DN OUT	0
VARWRAP	0	DNO HOLD	0
WALK	0		
WAITING	3		
FORCED	0		
SPARE	0		
<b>Total</b>	<b>3</b>	<b>Total</b>	<b>0</b>

- A search feature was added to the Find dialog box so that you can find an agent by name or ID. You must use a complete name.
- The Wallboard Run Table was modified. Figure 18 shows the new Wallboard Run Table window.

**Figure 18: Wallboard Run Table**

Wallboard	Current Display
Sales 2	Call Stats 2
IF to scraper	(Reset/Clear)
Steve	(Reset/Clear)
W95_WB	(Diagnostic - Identification)
L_IP	Call Stats

Wallboards: 5 Selected: 1

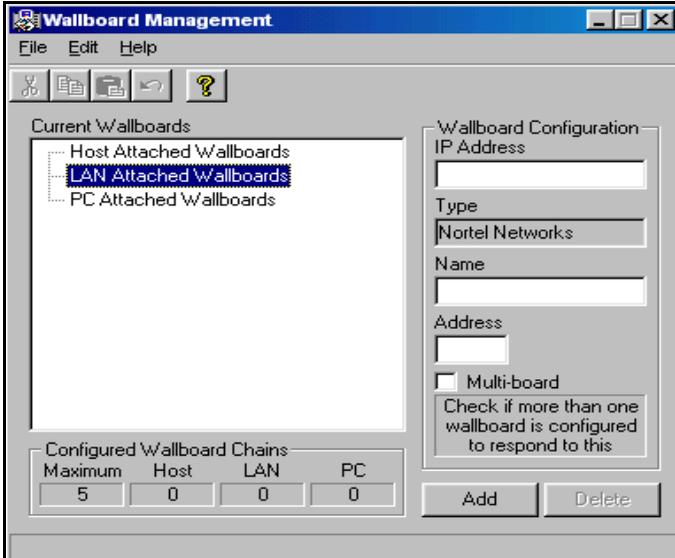
- A drag-and-drop load management feature was added to the Agent Status screen. With this feature, you can quickly reposition agents to different subgroups in the Navigator pane.

**Note:** Position Reassignment privileges are required to use this feature.

- Wallboards can now connect to the LAN (no terminal server required). This feature requires new LAN-enabled wallboards. The supervisor

privilege level must include both the Wallboards and the Client Management privilege options. The feature is implemented on the Wallboard Management window (see Figure 19) that appears when you select the Wallboard Management option from the Displays menu on the CC MIS main window.

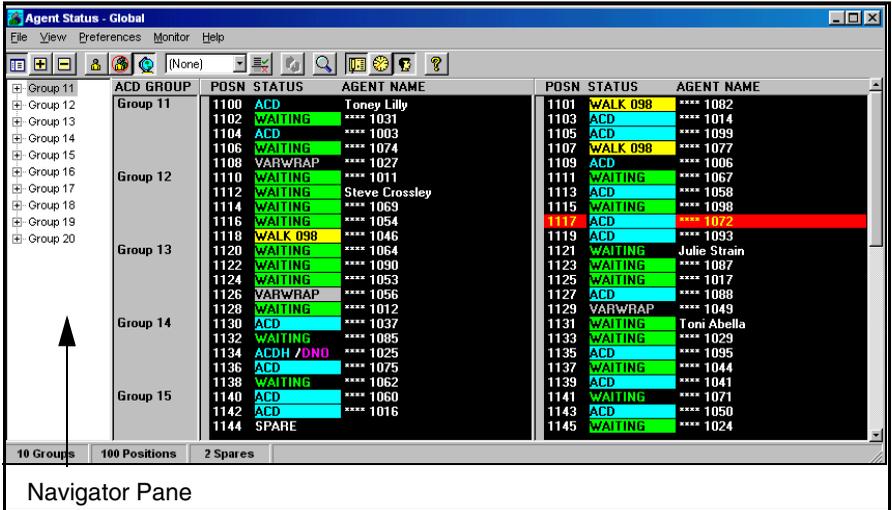
**Figure 19: Wallboard Management**



- An Agent List feature was added so that supervisors on local partitions can create lists of agents for use in reports. This feature is accessed on the List Definition screen.

- The Navigator pane was added to the Agent Status window (see Figure 20).

**Figure 20: Agent Status screen – Navigator pane**



- Supervisors can now hide spare positions (that is, choose whether spare positions are displayed). This option is selected from the Agent Status window.

## Maintenance interface

In Release 5.1, the Maintenance interface provided the following changes:

- Multiple time zones are permitted for each CC MIS node.  
**Note:** Time zones are entered on the Partition Options screen.
- A TCP/IP switch link connection was added for a LAN connection from the switch to CC MIS. This link is specified on the Switch Link Configuration screen.

## Release 5.2

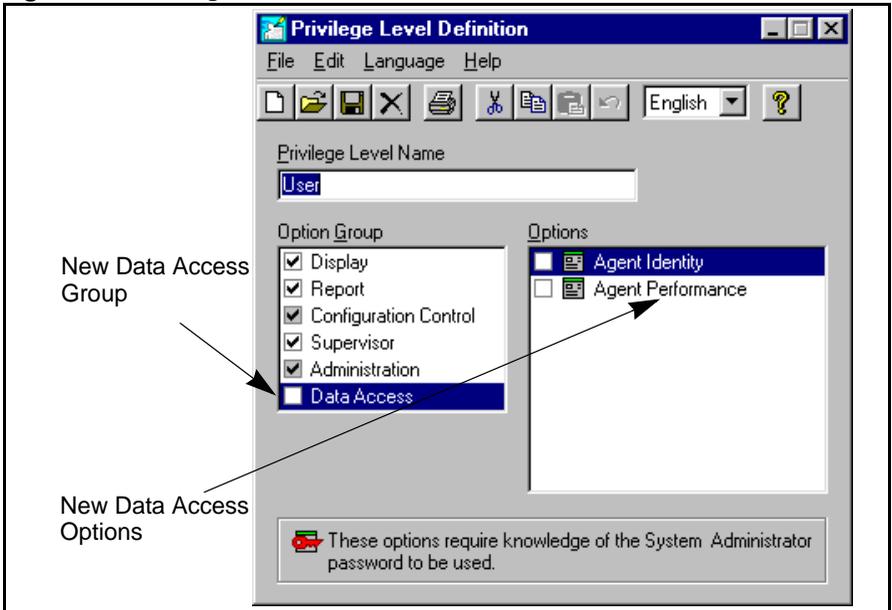
Release 5.2 provided the following changes and enhancements:

- A data access option group was added to the privilege level definition along with two options that control supervisor access to agent identities and agent performance information.
- Network Access Partitions (NAP) now supports the ability to create agent lists.
- The list definition capability permits creation of lists of walkaway codes, line of business (LOB) codes, and subgroups for use in report parameters. You can use these lists when defining report parameters that contain the key fields that reference these items.
- The ability to define agents through NAPs was added; the actual agent definitions remain in the local partitions associated with the NAP. For NAP supervisors to access the agent definition, they must have the agent definition option enabled in their associated privilege definition. The capability allows a NAP supervisor to manage the agent definitions that reside on each of the associated local partitions.
- The capability to specify how lists affect sorting of reports was added. The report information can be produced in the same order as the list, or the report information can be produced in natural order.
- Administrative modes are no longer limited to one supervisor at a time. Any number of supervisors can edit public definitions at any given time.
- Tooltips provide ACD group names or numbers when you position the pointer over an ACD group in the real-time display modes. (This feature does not apply to the Navigator pane in the Agent Status display.)
- Tooltips display the ACD Group name or Primary DN (whichever is not currently displayed on the screen) when you position the pointer over ACD Groups in the Queue Statistics display and the Agent Status display.

- You now have the option to create data-only reports. This option creates reports with no total lines and complements the previously available capability to create a totals-only report.
- Supervisors can send short one-line messages to other logged-on supervisors. To send messages, a supervisor must have the messaging option (a new supervisor option in the privilege level definition) enabled. Supervisors without this option enabled can still receive messages from other supervisors and reply to those messages.
- The Agent Status display screen is enhanced such that when an agent enters a walkaway code (that is defined in the Walkaway Definition screen to be treated as a Not Ready state), the descriptor for this code can be displayed as part of the status field. This capability is controlled by a new Display Not Ready Codes command on the Preferences menu.

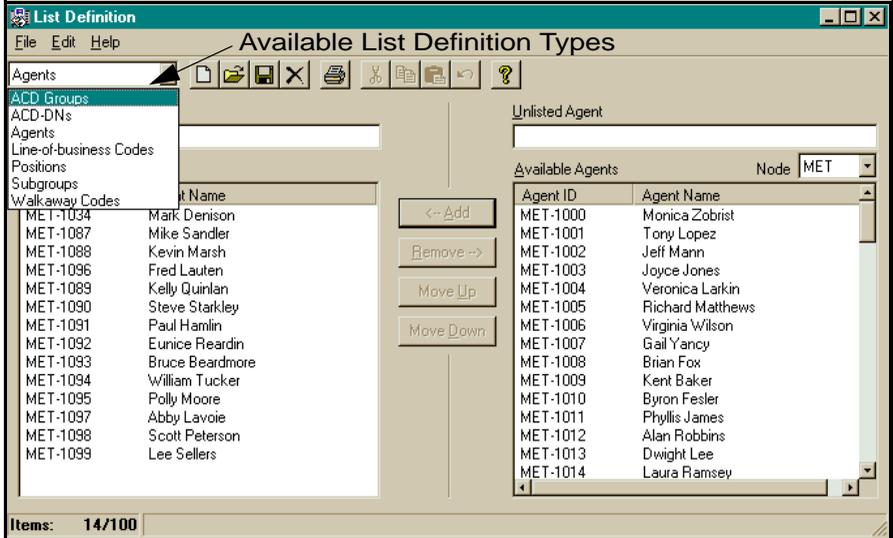
- Two new data access options in the Privilege Level Definition window (Agent Identity and Agent Performance [see Figure 21]) control whether supervisors can access detail information for agents. These access options affect access to agent information by supervisors through Agent Status, reports, and configuration control. Supervisors can be limited from accessing agent names or IDs by disabling the Agent Identity option or they can be limited from accessing agent performance information (real time or historical) by disabling the Agent Performance option.

**Figure 21: Privilege Level Definition**



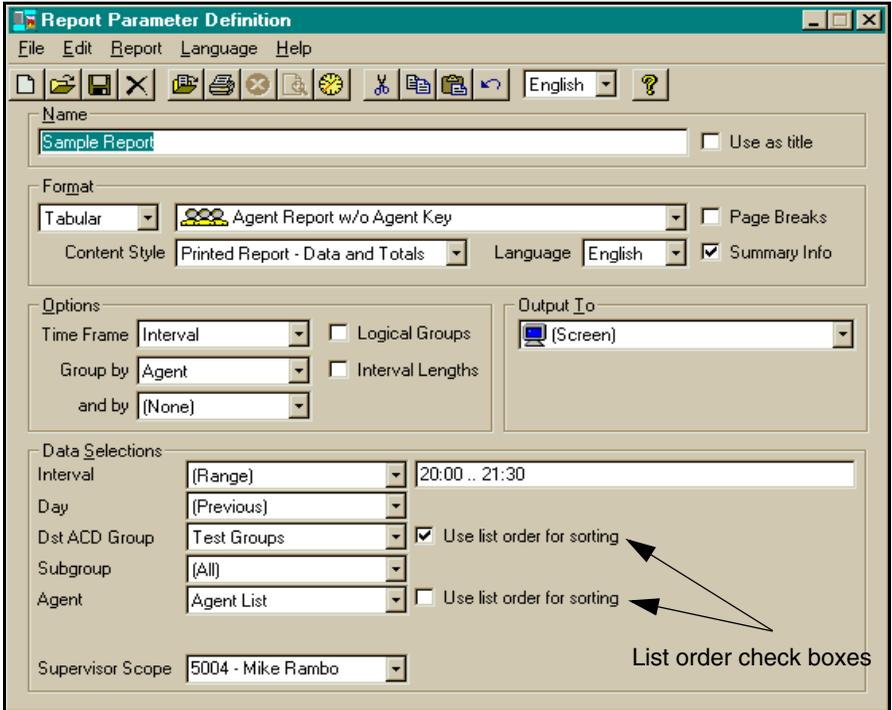
- The list definition capability was extended to permit the creation of lists of walkaway codes, line of business (LOB) codes, and subgroups. Additionally, this feature is extended to Network Access Partitions (NAP) to create lists of agents in the network. The List Definition window was improved to be more user-friendly (see Figure 22).

**Figure 22: List Definition**



- The ability to control whether or not a report is generated in list order was added by displaying check boxes when lists are specified in the Report Parameter Definition window (see Figure 23).

**Figure 23: Report Parameter Definition**



# Release 6.0

Support for the PowerPC and Reduced Instruction Set Computer (RISC) platforms is discontinued in CC MIS Release 6.0.

## Maintenance interface

CC MIS Release 6.0 provides the following changes and enhancements:

- Direct X.25 connection to the switch is not supported. Links to the switch must be made using a TCP/X.25 bridge device, configured to provide an IP-to-X.25 bridge. You cannot configure X.25 switch links on Linux systems. Instead, you can define live TCP/IP switch links and simulator links.
- Backup to a tape drive is not supported. Instead, you use a user-specified directory to back up CC MIS. You can configure the 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 file system.
- CC MIS does not use printers configured on the CC MIS server for printing reports generated within a customer partition. The Microsoft Windows printer interface provides a standard interface for printing CC MIS reports. Printing functionality in 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 be printed to any client-attached printer, sent to an e-mail address (if Sendmail is configured), or saved as a text file on disk.
- With some exceptions, CC MIS permits host names to be entered anywhere an IP address can be entered. The use of host names requires that a name resolution protocol be configured on the server (DNS or NIS).

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

## Supervisor interface

In Release 6.0, the Supervisor interface provides the following changes and enhancements:

- Individual walkaway code thresholds—The Walkaway Code Definition screen includes an optional code-specific threshold field, where you can assign different thresholds to each walkaway code. This change affects the time at which 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 on when a position in the walkaway state enters a highlighted state.
- System reports to e-mail or file destinations—You can send CC MIS system reports (reports that provide a list of various CC MIS database tables) to files on disk or as e-mail messages in the same manner currently used for historical reports.
- Report delimiters for reports saved as files—In the Client Services Filing tab you can specify a text file to prepend each report saved to disk. If the report is sent to an external system for processing, the text in this prepended file can serve as a delimiter for parsing purposes.
- Use of Windows Installer for CC MIS Client Setup program—The CC MIS Client Setup program no longer uses the InstallShield installation program. Instead, the Microsoft Windows Installer program is used. The operation and use of the setup program remains largely the same; however, the user interface presented in the installation program is slightly different.

- Sending reports as e-mail messages from the server—Reports can be generated as e-mail messages directly from the CC MIS server, without requiring the reports to be sent from an e-mail account accessible to one or more CC MIS clients. This feature increases security and eliminates the need to have a selected CC MIS client running at all times.

**Note:** This feature requires that the Linux Sendmail program is properly configured on the server. The capability to generate reports as e-mail messages is provided to partitions on a partition-by-partition basis through a new setting in the Partition Options screen of the CC MIS configuration utility.

- Security banner—The Customer Options screen includes an option for enabling or disabling a security banner dialog box to appear either upon successful connection to the server or upon each successful supervisor logon. Default text for the security banner is provided, which you can then modify through the Customer Options screen. The default security banner text 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 window 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 banner on the Maintenance interface by creating a text file named `/etc/motd`. This file, if it exists, is displayed immediately following logon of a Linux user but before starting the shell.



# Chapter 5

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## Installation overview

### In this chapter

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# Introduction

This chapter briefly describes the installation of the CC MIS Release 6.0.1 server and client software.

# Installation of the CC MIS server software

For complete details about installing and configuring the CC MIS server software, see *CC MIS Installation and Maintenance* (297-2671-545).

## Preinstallation verification

Before you install the CC MIS server software, you can check the target server platform for suitability by running the preinstallation script located in the `lnx` directory on the CC MIS Software CD-ROM. The preinstallation script is noninvasive; that is, it makes no changes to the target system. The script checks that the target server has all required software packages installed and that appropriate disk partitions are available for CC MIS. If any configuration errors or warnings are detected, the script provides guidance on how to correct the problems. After you correct any problems, you can run the preinstallation script again to verify that the changes made satisfy the CC MIS installation requirements.

**Note:** Ensure that the preinstallation script completes without any errors. The preinstallation script is invoked a second time during installation and cancels the installation if any errors are detected.

The preinstallation script also provides the system serial number, which is derived from the last 4 bytes of the MAC address of the first network interface card (NIC) in the system. This system serial number is required to generate the unique CC MIS keycode that unlocks the feature set that was purchased for this system.

For complete details about the requirements for the CC MIS server, preinstallation requirements, and the use of the preinstallation script, see *CC MIS Installation and Maintenance* (297-2671-545).

## Installing the CC MIS application on a server for the first time

To install the CC MIS application on a new Linux server, you must log on to the server as the root user. The installation requires the careful use of several Linux commands to extract the application software from the CD-ROM and execute the supplied installation script. The installation procedure is documented in *CC MIS Installation and Maintenance* (297-2671-545).

A CC MIS keycode is required to complete the installation of the CC MIS software. If the keycode is not available at the time of installation, the CC MIS software is disabled until a valid keycode is installed in the system through the CC MIS Maintenance interface (using the Install License Keycode command on the System Upgrade Utilities menu).

## Upgrading a server already running CC MIS

To upgrade the CC MIS server software, you must use the Load New Software Version command on the System Upgrade Utilities menu. Failure to perform the upgrade using this method can result in a corrupted system.

A new keycode is not required for software upgrades unless the major release version of the new software release is higher than the existing software.

## Migrating data from older CC MIS systems

You can migrate CC MIS databases from the older CC MIS platforms (PowerPC and RISC) using the Import function on the Backup and Restore Utilities menu of the CC MIS Maintenance interface. This function is new to CC MIS Release 6.0 and requires the source system (the CC MIS server containing the data to be imported) to be running CC MIS Release 5.2 or later. For details about importing data, see *CC MIS Installation and Maintenance* (297-2671-545).

## Upgrading the CC MIS server operating system

CC MIS 6.0.1 introduces support for Red Hat Enterprise Linux Version 4. To upgrade your server from Red Hat Enterprise Linux Version 3 to Version 4, back up your CC MIS data, install the new operating system, reinstall CC MIS on the new operating system, and restore your configuration data from the backup. For more details about upgrading the CC MIS server from Red Hat Enterprise Linux Version 3 to Version 4, see *CC MIS Installation and Maintenance* (297-2671-545) and the Red Hat documentation.

# Installation of the CC MIS client software

This section provides an overview of the CC MIS client software installation. For complete details about installing and configuring the CC MIS client software, see *CC MIS Installation and Maintenance* (297-2671-545).

## Microsoft Windows support

The CC MIS 6.0.1 client software is supported on the following versions of Microsoft Windows.

**Table 1: Supported versions of Microsoft Windows**

Windows version	Notes
Windows 2000	Nortel recommends that you use the professional versions of Windows 2000 and Windows XP.
Windows XP	

Windows Vista is not currently supported.

## Types of CC MIS client software installations

You can install the CC MIS client software on a supervisor terminal (client PC) in one of two ways: per-machine installation or per-user installation.

- When the CC MIS installation is performed by an administrative user, the user can choose either of these installation types by selecting either the Everyone or Just me option buttons that appear in the Select Installation Folder window of the installation program.
- When the installation is performed by a user without administrative access rights, the user can perform only the per-user installation and no options appear in the Select Installation Folder window of the installation program.

For more information about the types of CC MIS client software installations, see *CC MIS Installation and Maintenance* (297-2671-545).

## Installing from the CD-ROM

To install the CC MIS Release 6.0.1 client software on a Windows PC, insert the CC MIS Software CD-ROM in the CD-ROM drive. The installation program starts automatically. If the installation program does not start automatically, manually start the installation using one of the following two methods:

1. Use Windows Explorer to navigate to the **Win** folder on the CD-ROM, and then double-click the **setup.exe** program found in that folder.
2. From the Windows **Start** menu, select **Run**. In the **Open** box, type **D:\win\setup.exe** (where D is the letter of your CD-ROM drive), and then click **OK**.

When the installation program starts, follow the prompts to install the CC MIS client software.

For detailed information about the software installation, see *CC MIS Installation and Maintenance* (297-2671-545). *CC MIS Installation and Maintenance* also provides additional information regarding the per-machine and per-user types of installations.

## Upgrading from CC MIS 3.2 and later

The installation media is not required for PCs already running Release 3.2 or later of the Windows-based CC MIS client software. After CC MIS Release 6.0.1 is installed and configured on the CC MIS server, users can start the current version of the CC MIS client on their PCs and are prompted to download and automatically install the upgrade when a connection to the CC MIS 6.0.1 server is established.



# Chapter 6

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## Fixes

### In this chapter

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# Fixes in Software Release 6.0

This section contains a list of fixes for CC MIS Release 6.0. Table 2 includes the Change Request (CR) number, the CR title, and an explanation of the fixed issue.

**Table 2: Software fixes in Release 6.0 (Part 1 of 3)**

CR number	CR title and explanation
Q01077871	<p><b>Real-time stats updated for wrong group if posn handles call from previous group</b></p> <p>If a position is moved to another group while a call is either presented or active on it, the real-time statistics for the current group for that position are updated instead of the statistics for the actual group in which the call was received. This can result in incorrect calls in queue and service level statistics for the ACD group for which the call is being handled.</p> <p>Changes were made to internal data structures and messaging to allow the system to peg statistics against the ACD group in which the position answered the call rather than against the group to which the position is currently assigned. This means that the real-time displays can show a position in ACD state for a call that came into an ACD group that is different from the current ACD group for that position. However, this situation lasts only for the duration of the call that was received by the position at the time the position was reassigned to the new group.</p>

**Table 2: Software fixes in Release 6.0 (Part 2 of 3)**

CR number	CR title and explanation
Q01107868	<p data-bbox="356 260 977 320"><b>Enhanced walkaway does not reset Agent Status Display duration timers</b></p> <p data-bbox="356 328 1039 499">The ACD Enhanced Walkaway feature allows an ACD agent to change the walkaway reason without coming out of the Not Ready state. The Enhanced Walkaway feature builds on the Walkaway feature, which allows you to use a three-digit code to describe the reason for not being ready.</p> <p data-bbox="356 512 1005 576">To change the walkaway reason, perform the following tasks:</p> <ol data-bbox="356 592 1037 738" style="list-style-type: none"> <li data-bbox="356 592 1037 655">1 Dial an access code from a secondary directory number (DN).</li> <li data-bbox="356 671 1005 738">2 Indicate the reason for not being ready using a three-digit code.</li> </ol> <p data-bbox="356 754 1034 887">The agent status duration timers do not reset when the screen updates to a new walkaway code using this feature. The duration time continues to increase when the status indicates that a new walkaway code was entered.</p> <p data-bbox="356 903 1014 1002">The software was updated to reset the duration counters whenever a new walkaway code is entered, even if the position is already in the walkaway state.</p>

**Table 2: Software fixes in Release 6.0 (Part 3 of 3)**

CR number	CR title and explanation
Q01131969	<p data-bbox="356 261 986 322"><b>Scope filtering of Agent Event Log reports shows misleading information</b></p> <p data-bbox="356 330 1034 707">When agents are moved among subgroups and event log reports are run with a restricted scope, misleading information can appear in the reports due to the fact that events occur while the agent is outside the scope of the report and these events are not accounted for in the report statistics. For instance, if an agent moves from subgroup 1000 to subgroup 1001 and then back again a short time later, any report run with a scope that is restricted to subgroup 1000 appears to show complete information; however, the report is missing the details for the agent while in subgroup 1001.</p> <p data-bbox="356 722 1025 892">Additional records are created in the agent event log database file that provide information about agent moves between subgroups. These records appear in the agent event log reports when an agent moves in or out of the scope of the report as follows:</p> <ul data-bbox="364 908 1025 1193" style="list-style-type: none"> <li data-bbox="364 908 1025 1042">■ A MOVE OUT record indicates that the agent moved out of scope at the time shown in the END TIME column. If the agent was active on a walkaway at the time, the walkaway code is displayed.</li> <li data-bbox="364 1058 1025 1193">■ A MOVE IN record indicates that the agent moved into scope at the time shown in the START TIME column. If the agent was active on a walkaway at the time, the walkaway code is displayed.</li> </ul> <p data-bbox="356 1209 1031 1310">These new MOVE IN and MOVE OUT records do not appear on the report if the agent stays within the scope of the report.</p> <p data-bbox="356 1326 1031 1426"><b>Note:</b> The solution to this problem is only effective when you run reports on data that was collected following the application of the fix.</p>

## Fixes in Software Release 6.0.1

This section contains a list of fixes for CC MIS Release 6.0.1. Table 3 includes the Change Request (CR) number, the CR title, and an explanation of the fixed issue.

**Table 3: Software fixes in Release 6.0.1 (Part 1 of 7)**

CR number	CR title and explanation
Q01189322	<p><b>CC MIS Schedule List Report does not contain the attached reports/change orders</b></p> <p>The system report generator was modified to read the attached reports and change orders correctly from the database and display them on the report.</p>
Q01229214	<p><b>CC MIS 6.0 SMB backup option is not working</b></p> <p>CC MIS Release 6.0 does not complete a system backup to an Server Message Block (SMB) file server. The error message is “unrecoverable error.”</p> <p>The copy (cp) commands used to perform the backup specified the -p option to preserve time stamps on the files. SMB file systems do not support this capability. To correct this, the -p option was removed from all copy commands.</p>

**Table 3: Software fixes in Release 6.0.1 (Part 2 of 7)**

<b>CR number</b>	<b>CR title and explanation</b>
Q01304883	<p><b>CC MIS SNMP agent generating “Malformed SNMP packet from standard agent” errors</b></p> <p>The CC MIS SNMP agent cannot handle ASN.1 encoded integers longer than 4 bytes in length, which sometimes results in the following CC MIS error logs being captured on application startup:</p> <p>Warning at 06/02/04 09:23:18 CST ASN.1 integers longer than 4 bytes not supported Process: snmpxa (2392) Partition: 0 Source: asn1.c, asn_parse_int, 339</p> <p>Warning at 06/02/04 09:23:18 CST Malformed SNMP packet from standard agent Process: snmpxa (2392) Partition: 0 Source: xa_snmpif.c, snmpd_discovery_resp, 2170</p> <p>Support for 64-bit integers was added to the CC MIS ASN.1 library.</p>
Q01307305	<p><b>Unable to configure chained wallboards on a single port</b></p> <p>The Terminal Server configuration screen does not allow wallboard displays to be chained on a single port on the terminal server. The screen handler is not adding the correct configuration in the database.</p> <p>A composite key used to enter the wallboard definition entries into a sorted list was dependent on a big-endian processor architecture for proper operation. The Linux version of CC MIS is now based on the Intel architecture, which is little-endian, thus breaking the sorting algorithm. A byte-order independent method of sorting the wallboard configuration entries is used in place of the previous algorithm.</p>

**Table 3: Software fixes in Release 6.0.1 (Part 3 of 7)**

CR number	CR title and explanation
Q01340718	<p><b>Sysdb is not removed when transitioning from training to product mode</b></p> <p>The database containing definitions (such as reports, displays, and agents) is not removed when transitioning from the training mode to the product mode. This data should be removed along with the other databases. An invalid path to the rm command was used when clearing out the existing customer database, resulting in the database not being removed.</p>
Q01392306	<p><b>“Hide spares” does not always hide spare positions on NAP partitions</b></p> <p>The server process for the CC MIS supervisor client was modified to use the position status value instead of the agent ID value to determine which positions are spare versus active/forced. The agent ID value was also being read from the wrong location, which, on NAPs that access remote partition data, was causing inconsistent or incorrect determination of the state of the position as it relates to hiding of spare positions.</p>

**Table 3: Software fixes in Release 6.0.1 (Part 4 of 7)**

<b>CR number</b>	<b>CR title and explanation</b>
Q01403246	<p><b>Network agent reports using lists do not work in a mixed machine environment</b></p> <p>If a CC MIS NAP partition that includes local partitions located on PowerPC or 88k hosts tries to generate a report that uses lists of agent IDs as part of the selection criteria, the report returns with the message “No data selected.” If a range of agent IDs is used, the report returns data including the agents in the list.</p> <p>The problem is caused by the different CPU architectures used between the PowerPC (big-endian) and the Intel Linux machine (little-endian). List elements for agent IDs were not being converted to network byte order before being sent to the local node. This causes the agent IDs received by the local partition to be unintelligible, therefore causing the record selection stage of the report data query to exclude all records.</p> <p>Because PowerPC machines already use network byte order, no change is required to support this fix on the PowerPC systems.</p>
Q01403280	<p><b>CC MIS 6.0 database imports sometimes fail</b></p> <p>Database imports from CC MSI 5.2 systems occasionally fail to complete. When this happens, a fatal “Socket write error” occurs in the bartask process on the Linux system performing the import.</p> <p>The bartask process was opening its socket connection back to the manager process (barmgr) in nonblocking mode. During the import, if several small files were encountered in a row, the volume of status messages sent back to the manager overflowed the socket buffer, causing the operating system to return an error and cancel the import.</p>

**Table 3: Software fixes in Release 6.0.1 (Part 5 of 7)**

CR number	CR title and explanation
Q01407717	<p><b>CC MIS 6.0: Failed migration causes databases not to initialize</b></p> <p>Data migration from a legacy platform that fails causes data to increment by a factor of one each time migration is attempted. Databases are not reinitialized upon successful migration.</p> <p>An invalid UNIX command was issued to delete the contents of the current database before starting the import of the data from the remote node. This command was corrected so that the current database contents are now always deleted prior to the beginning of any import.</p>
Q01412945	<p><b>Timestamps are offset by a number of hours for NAP event log reports</b></p> <p>In a NAP partition in Release 6.0, when you generate an Event First Login/Last Logout report for a specific node that is in a different time zone, the logon and logoff times are different from the actual logon and logoff times. If you generate this report with the node set to all, the times are accurate.</p> <p>Time zone information was incorrectly accessed from an internal table in the case where a single virtual node was included in the report. Normally, when all nodes are selected, the node ID is used to index a table containing the time zone settings for each virtual node. When a single virtual node is requested, this table consists of a single entry, in which case an index value of zero must be used, rather than the node ID.</p>

**Table 3: Software fixes in Release 6.0.1 (Part 6 of 7)**

CR number	CR title and explanation
Q01424639	<p><b>Spectrum data missing from imported answer and abandon categories</b></p> <p>The conversion of the data from binary to ASCII format on the export side of the connection only included the first non-zero spectrum bin value before stopping, leaving the peg counts for the remaining bins in the spectrum as zero. This conversion process was corrected.</p> <p><b>Note:</b> This problem occurs on the export side of the connection. Thus, when importing from a 5.2 system to CC MIS 6.0.1, the older server must be updated for this fix to be applied.</p> <p>Patches are available to the Nortel CC MIS support organization for the following system types:</p> <ul style="list-style-type: none"> <li>■ PowerPC/AIX running CC MIS 5.2.x</li> <li>■ 88K/RISC running CC MIS 5.2.x</li> </ul>
Q01300055	<p><b>Communications Setup dialog takes a long time to open when many COM ports exist</b></p> <p>On a Windows PC on which a large number of COM ports exist (greater than two), the Communications Setup dialog box can take quite a long time to open.</p> <p>CC MIS was enumerating the available COM ports by attempting to open COM ports 1 through 9 and testing for a “not found” error. This enumeration method was changed to use the QueryDosDevice Windows API, which returns all defined DOS devices without having to open them. This method avoids the delay associated with some DOS devices that are really pseudo COM ports that can take some time to open.</p>

**Table 3: Software fixes in Release 6.0.1 (Part 7 of 7)**

CR number	CR title and explanation
Q01593556	<p data-bbox="353 261 1022 322"><b>Negative agent IDs in agent performance data cause reports to fail</b></p> <p data-bbox="353 331 1022 496">Occasionally, a record is added to the agent performance data in the historical database with a negative agent ID. When you run a report that includes the time frame in which such a record exists, the generation of the report fails.</p> <p data-bbox="353 515 1022 783">This problem is likely caused by changes made in the handling of forced-out agents. When an agent is forced out, the Agent ID field associated with the position is set to the negative of the agent ID of the agent previously logged on. This introduced a timing issue, whereby this negative value can be picked up instead of the previous positive ID value when creating the data record in the database.</p> <p data-bbox="353 802 1022 935">A change was made to ensure that only positive agent ID values are added to the database. In addition, the report generator now checks for this condition and, if a negative value is found, it corrects the agent ID value itself.</p>



# Chapter 7

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## Known problems

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## CC MIS problems

All reported problems have been fixed in CC MIS Release 6.0.

## ACD MIS datastream problems

Table 4 contains a list of reported problems with the ACD Management Information System (MIS) datastream.

**Table 4: ACD MIS datastream problems**

Number (see Note)	Description
BI22175	Ans & Transferred statistic. Protocol issue prevents pegging of answer/abandon messages by source/destination pairs.
Q00319972 UT1P710	CC MIS: Overflow reports are not correct according to the customer.
<p><b>Note:</b> The internal problem tracking system was changed during the development of Release 5.2. For problems found externally, both the internal (Clarify) and the external (CSDS) numbers are listed for reference.</p>	

# Third-party interaction problems

This section describes problems related to the way in which CC MIS interacts with third-party software. Problems described in this section are outside the control of the CC MIS application.

## Microsoft Outlook E-mail Security Update

This section provides information about the interaction of the CC MIS application with Microsoft Outlook software and the Outlook E-mail Security Update; specifically, the manual approval of CC MIS reports generated with the output device configured as an e-mail address.

This information was obtained from Microsoft Corporation. Related Web site URL addresses on this issue are listed in the information.

The Outlook E-mail Security Update provides additional levels of protection against malicious e-mail messages. The update changes the way that attachments are handled by Outlook and the way that Outlook can be controlled programmatically.

For more information about the update and how it can affect the functionality of Outlook, this article includes links to a known-issues list, information for developers, information for administrators, and other information to consider before you apply the update.

## History of the Outlook Security Updates

This Outlook E-mail Security Update is the second attachment-handling update for Outlook.

The first security attachment update, the Outlook E-mail Attachment Security Update, requires that you save certain file types to a disk. For additional information about the first security attachment update, view the following Microsoft Knowledge Base article:

Outlook E-mail Attachment Security Update

<http://support.microsoft.com/default.aspx?scid=kb;EN-US;235309>

The Microsoft Outlook E-mail Security Update changes and extends attachment handling. For general information about this update, and to download the update, view the following Microsoft Office Download Center article:

Outlook 98 Update: E-mail Security

<http://office.microsoft.com/downloads/9798/Out98sec.aspx>

## Customizing the behavior of the Security Update

If you are not running Outlook in a Microsoft Exchange Server environment, or your mail is delivered to a local Personal Folders file (.pst), you cannot configure the settings for the update and you must use the full feature set of the update.

If you run Outlook in a Microsoft Exchange Server environment and your e-mail messages are delivered to a server-based mailbox, your administrator can control specific features that are included with the update. However, if your mail is delivered to a Personal Folders file (.pst), then you cannot configure the settings for the update.

## New programmability behavior

When you install the update, programmatic access to Outlook is restricted. If other applications (such as CC MIS) try to use Outlook on your behalf, you receive a warning message and you are prompted to confirm what the other application is doing. You receive warning messages when another application tries to do anything in the following list:

- Send mail on your behalf
- Access your address book
- Access e-mail names from your messages
- Access e-mail information from your contacts or other types of items
- Save your messages to the file system
- Search your messages for content
- Use Simple Messaging Application Programming interface (Simple MAPI) to send messages without your consent

Additional information can be obtained from the Microsoft Help and Support web site: <http://support.microsoft.com/>

### **Impact of the Security Update on CC MIS**

The new programmatic access restrictions introduced by this security update limit the usefulness of the CC MIS e-mail report generation capabilities by requiring each report to be manually approved on the client PC to which it was directed.

# Call Center Management Information System

## Release Notes

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