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Nortel Contact Center

What's New in Release 6.0

Product release 6.0

Standard 5.02

June 2009



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Nortel Contact Center

What's New in Release 6.0

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Chapter 1

Introduction

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What is a contact center?

Contact centers are constantly evolving to meet existing needs. Once an environment designed to process telephone calls, call centers have evolved to become customer contact centers, processing all types of media transactions. The contact center is now seen as the core of a business due to its critical role in maximizing customer satisfaction, while at the same time realizing efficiency.

The integral parts of a contact center consist of

- representatives who handle customer transactions (also called agents)
- management personnel
- technology to handle each customer contact, including routing to the best qualified agent, treatment, and fulfillment of the contact

A contact center is often a department in a company, or it can be the sole business unit in a company. Frequently, the contact center is the only point of contact between a company and its customers or suppliers. Regardless of the size and complexity of a contact center, its objectives and goals remain consistent:

- to deliver customer satisfaction through prompt, professional contact handling
- to control costs by using resources and technology more efficiently
- to help staff work more productively
- to increase profitability

Contact centers are accessed globally with customer satisfaction support becoming increasingly important. Cohesive contact center presence requires multiple contact centers with different switch platforms.

Some contact centers use Session Initiated Protocol (SIP) technology to enhance the capabilities of their agents. SIP is the latest development in contact center technology, and enables converged voice and multimedia services such as voice-enriched e-commerce, Web page click-to-dial, and instant messaging with buddy lists, personalized music, forms, and customized video clips.

About this document

Nortel has proven to be a world leader in contact center technology, with contact centers in more than 100 countries. Nortel understands the needs of the contact center environment, and creates lasting relationships with customers by developing the solutions to address their ever-changing business needs.

What's New in Release 6.0 describes the components of Nortel Contact Center Release 6.0, highlights new features, and describes product changes for this release. It is organized into the following sections:

- Chapter 1, "Introduction," includes
 - what is a contact center
 - information about this document
- Chapter 2, "About Contact Center 6.0," includes
 - how the software is delivered
 - the components of Contact Center Release 6.0
 - important contact center features
 - system operations and supported switch platforms
 - documentation released with the Contact Center Release 6.0 product
 - how to contact Nortel.
- Chapter 3, "New in this release," includes
 - Contact Center portfolio rebranding information for Release 6.0
 - information about upgrading from previous releases
 - an overview of new features and product improvements for Release 6.0
- Appendix A, "Acronyms in Contact Center," includes information about acronyms commonly seen in contact center documentation.
- "Glossary" on page 65 defines terms commonly seen in contact center documentation.

Chapter 2

About Contact Center 6.0

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Overview

Nortel Contact Center 6.0 represents the next generation of contact center software. Contact Center 6.0 is a set of software components that addresses the business requirements of sophisticated contact center environments. Contact Center 6.0 is sold as a single software media suite with a licensing mechanism that offers custom functionality and features, either using corporate or nodal licensing.

Nortel Contact Center 6.0 utilizes the latest in communications technologies to deliver superior contact management capabilities. It offers a full range of functionality covering inbound and outbound voice, multimedia (e-mail, text chat, video), and Computer-Telephony Integration (CTI). It offers a multimedia-ready agent desktop along with supervisor tools to manage the multimedia contact center. It has extensive reporting tools that generate reports that are meaningful and useful for businesses.

Contact Center 6.0 provides integrated outbound capability for the creation, modification, and monitoring of outbound campaigns.

Contact Center 6.0 contains a rich scripting language that provides flexibility in the way contacts are treated and routed. It employs advanced skill-based routing to enable individual contact treatment and to connect customers with the agents most qualified to serve them, locally or across a network.

Server software features ensure that your contact center is geographically resilient, reducing contact center unplanned downtime and facilitating disaster recovery strategies.

This chapter provides an overview of Contact Center 6.0—the components, switch support, and documentation.

Software delivery

For Release 6.0, all Contact Center components, including the documentation, are delivered on a single DVD. The DVD contains the following Nortel applications:

- Contact Center Manager Server (including the Contact Center Manager Network Control Center)
- License Manager
- Contact Center Replication Server
- Server Utility
- Contact Center Manager Administration
- Communication Control Toolkit
- Contact Center Multimedia/Outbound

You are prompted to select the components you want to install. Your selection invokes the individual component installation. Component applications are not integrated—each application is stored as a separate entity.

Components in Release 6.0

The Contact Center 6.0 suite consists of a host of integrated applications providing solutions for the very basic to the most complex contact center. The following sections provide an overview of the different components and features of Contact Center 6.0.

Contact Center Manager Server

Contact Center Manager Server is the core contact center component that provides the intelligent routing capability for telephony calls and multimedia contacts. Use Contact Center Manager Server to route calls and contacts to the most qualified agent. The most qualified agent is the agent with the appropriate capability for handling the type of call or contact and the appropriate skillset or unique abilities. Rules for contact treatment (what happens while the customer is waiting for a response) and routing (the contact response) can be simple or complex.

Script elements are used to create call routing schemes and treatments. Some examples of elements that you can use to create call scripts are:

- **Queue to Agent**—Queues a call to a specific agent or group of agents.
- **Queue to Skillset**—Queues a call to a specific skillset.
- **Give Music**—Provides a caller with music from a defined source.
- **Give RAN**—Provides a recorded announcement to a caller.
- **Give Broadcast Announcement**—Broadcasts an announcement to multiple callers at the same time (for example, to let the caller know the call may be recorded).
- **Give IVR**—Provides a caller with an automated method of entering and retrieving information from a voice system while maintaining their place in a queue.
- **Collect Digits**—Collects information from the caller, such as the reason for the call or an account number. The collected digits can then be used to route or treat the call.

The comprehensive reporting tools of Contact Center Manager Server help managers and supervisors accurately track agent performance, resource utilization, and trends. The system's real-time and historical reporting can help in adjusting staffing levels in peak periods and in forecasting business requirements and human resource needs over the long term.

Contact Center Manager Server provides a number of open interfaces that third party developers can use to build applications that interwork with Contact Center Manager Server. Real Time Statistics Multicast (RSM) and Real-Time Interface (RTI) provide real time information to applications such as wall boards. The Host Data Exchange (HDX) provides an interface for applications to communicate with the call processing script/workflow. This interface is typically used to allow the workflow to access information in an external database. With the Open Database Connectivity (ODBC) interface, an application can extract information from the Contact Center Manager Server database. The Meridian Link Service Manager (MLSM) interface provides messaging and control of resources on the telephony switch. The MLSM interface is typically used for implementing softphone features.

Contact Center Manager Server can manage multimedia contacts using the Open Queue feature introduced in Contact Center 6.0. The Open Queue is a licensed feature that provides seamless integration between Contact Center Manager Server, Administrator, Multimedia, and Communication Control Toolkit products. It provides true workflow, queuing, routing, reporting, and management of voice, outbound, and e-mail contacts.

Contact Center Manager Server can also be used in a SIP-enabled contact center, where communication sessions are established over Internet Protocol (IP) networks for interactive communication between two or more entities. SIP enables converged voice and multimedia services, such as voice-enriched e-commerce, Web page click-to-dial, instant messaging with buddy lists, and video.

Contact Center Manager Server establishes the nodal and corporate licenses for features such as universal networking and the standby server.

Network Control Center server

The Network Control Center server manages the Network Skill-Based Routing (NSBR) configuration and communication between servers in a Contact Center Manager network. The Network Control Center server is required when servers in multiple Contact Center Manager Server sites are networked and operating as a single distributed contact center. The Network Control Center server runs the Network Control Center (NCC) software application, a feature of the Contact Center Manager Server application software.

License Manager

Nortel uses a License Manager for the centralized licensing and control of all Contact Center 6.0 components and features across the Contact Center suite (Contact Center Manager, Contact Center Manager Administration, Communication Control Toolkit, and Contact Center Multimedia).

You must install the License Manager on the Contact Center Manager Server or on the primary Contact Center Manager Server in a networked contact center. If you are working in a Knowledge Worker environment, where there is no Contact Center Manager Server, install the License Manager on the Communication Control Toolkit server.

A Corporate License feature is available with Contact Center 6.0, where licensing for the entire contact center network is administered on a centralized License Manager server, thereby reducing administration overhead. With Corporate Licensing, you can enable the concurrent agent licenses across a contact center network. For example, if an agent logs off in California, the seat (agent license) becomes available for use by an agent based in Texas, thereby maximizing the corporate license investment.

You can install a backup License Manager server on another Contact Center Manager Server to ensure business continuity if the primary License Manager server fails.

Standby and Replication Server

The Replication Server is a third-party software server that replicates data and distributes it to the standby server. If the active Contact Center Manager Server fails, the standby server can be quickly deployed.

Server Utility

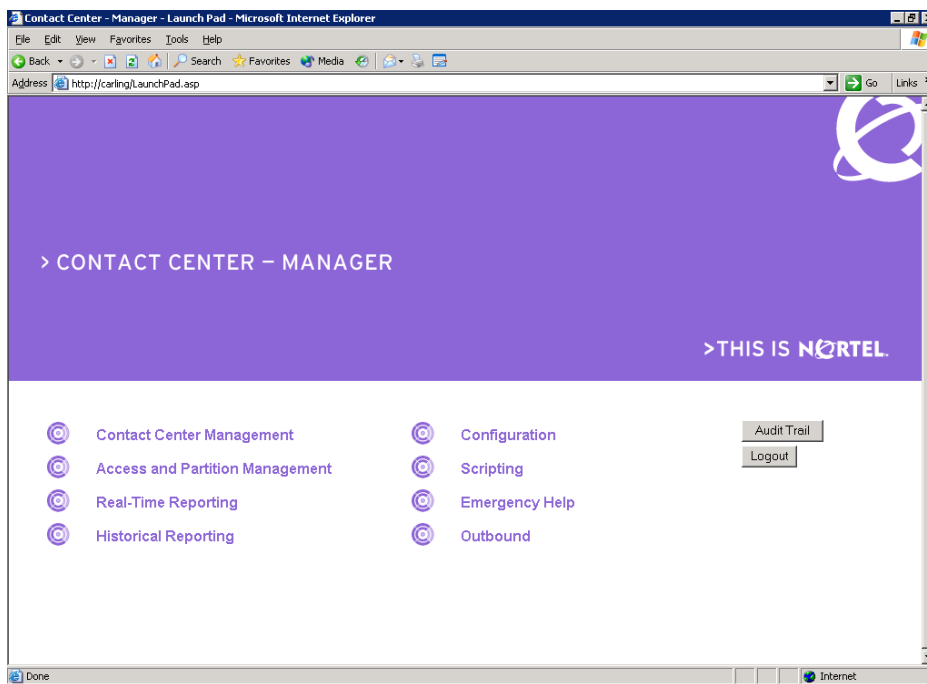
You can use the Server Utility to monitor and maintain Contact Center Manager Server Release 6.0. The Server Utility provides functionality that is not available through Contact Center Manager Administration.

With the Server Utility, you can

- Monitor and maintain user accounts for the Server Utility, database logons, access classes, serial ports, switch resources, the Voice Prompt Editor, server settings, and connected sessions, backup scheduler, and alarm monitor.
- Use the Provider application to receive Contact Center script information over the Host Data Exchange (HDX) interface. Additionally, the Provider application can be configured to return information to the Contact Center script.
- Use the Service Monitor application to monitor the status of Contact Center Manager Server 6.0 services from a stand-alone computer. The information returned is similar to the information provided by SMONW.
- Use PC Event Browser to view events that occur on the client PC where the Server Utility is running.

Contact Center Manager Administration

Contact Center Manager Administration is a browser-based tool for contact center administrators and supervisors. You can use Contact Center Manager Administration to manage and configure a contact center and its users, define access to data, and view real-time and historical reports. You can install the Contact Center Manager Administration component on the same server as Contact Center Manager Server, or on a separate networked server.



With the Contact Center Manager Administration Web-based platform, you can perform the following functions based on the CS 1000/Meridian 1, CS 2x00/DMS, or SIP configuration of your contact center:

- **Contact Center Management**—Configure access levels for agent to skillset and agent to supervisor assignments, view the schedule of agent to skillset and agent to supervisor assignments, choose priority/standby from a drop-down menu in agent to skillset assignments, display the current status of an agent, and change all agents in an agent to supervisor assignment to one supervisor simultaneously. The database contains a new column in the application and skillset views to hold the contact type.
- **Access and Partition Management**—Create a Contact Center Manager administrator and partitions and access classes for agents and supervisors. Partitions define what a user can view and access classes define what the user can create, change, or modify.
- **Configuration**—Configure data such as users and skillsets for the contact center. You can use templates in Microsoft Excel spreadsheets to upload Contact Center Manager information.

- **Scripting**—Create, modify, and validate contact routing instructions for the contact center.
- **Real-Time Reporting**—Display real-time skillset reports, include or exclude non-staffed skillsets, select filters for real-time displays, and configure colors for both networked and single-node contact centers.
- **Historical Reporting**—View and print historical report schedules, modify report templates on a network drive, and print access and partition management information.
- **Report Creation Wizard**—Create, maintain, and modify customized reports through a user-friendly interface. You can view real-time reports on a per-skillset basis (if outbound skillsets are defined) and standard historical outbound reports through Contact Center Manager Administration. You can use the Report Creation Wizard to generate custom outbound reports. For more information, see the *Contact Center Manager Supervisor's Guide*.
- **Emergency Help**—View notifications of agent emergencies. Agents can click an Emergency button on the Contact Center Agent Desktop to alert supervisors of contact emergencies.
- **Audit Trail**—View a record of all actions performed in the Contact Center Manager Administration configuration.
- **Outbound**—Configure outbound campaigns if the Multimedia/Outbound server software is installed. For more information about the Multimedia/Outbound server, see “Contact Center Multimedia” on page 21.

Agent Desktop Display

The Agent Desktop Display application is a separate application that can run along with the Agent Desktop application to provide real-time skillset monitoring on agent desktops.

Communication Control Toolkit

The Communication Control Toolkit server is a server/client application that helps you implement Computer-Telephony Integration(CTI) for installed and browser-based client integrations. For switches, the Communication Control Toolkit facilitates the integration of contact center, Knowledge Worker, and self-service solutions with your client applications. In the SIP-enabled contact center, the Communication Control Toolkit integrates the contact center users with the SIP CTI on the CS 1000 Signaling Server.

The Communication Control Toolkit contains the following elements:

- **Communication Control Toolkit server**—The component responsible for managing client sessions consists of the following subcomponents:
 - **Contact Management Framework**—An infrastructure component that manages the states of contacts, agents, terminals, and addresses.
 - **Telephony Application Program Interface (TAPI) Connector**—A connector that converts Communication Control Toolkit requests to TAPI calls, and TAPI events to Communication Control Toolkit events. The TAPI Connector sits between the Nortel TAPI Service Provider and the Contact Management Framework. The TAPI Connector is not used in SIP-enabled contact centers.
 - **TAPI Service Provider**—A Microsoft TAPI client responsible for CTI operations of all lines controlled by the Communication Control Toolkit platform that are initialized by TAPI. The TAPI Service Provider is not used in SIP-enabled contact centers.
 - **SIP Connector**—A SIP-enabled contact center requires a Communication Control Toolkit Connector to accommodate Contact Center Manager Server agent logons from the Contact Center Agent Desktop application. A SIP-enabled contact center also requires the functionality of a Communication Control Toolkit Connector that is built into the Contact Center Manager Server product as a SIP service.
 - **Intelligent Call Manager (ICM) connector**—The Communication Control Toolkit now supports ICM on CS 2x00.
 - **Communication Control Toolkit API**—An application programming interface (API) that controls voice resources. The API is published as Microsoft .NET types and distributed as a Windows assembly, which is referenced by application developers.

- **Client applications**—Third-party components including software phones, agent telephony toolbars, or call management applications. The Contact Center Agent Desktop is a Nortel software application that provides the agent telephony toolbar functionality.

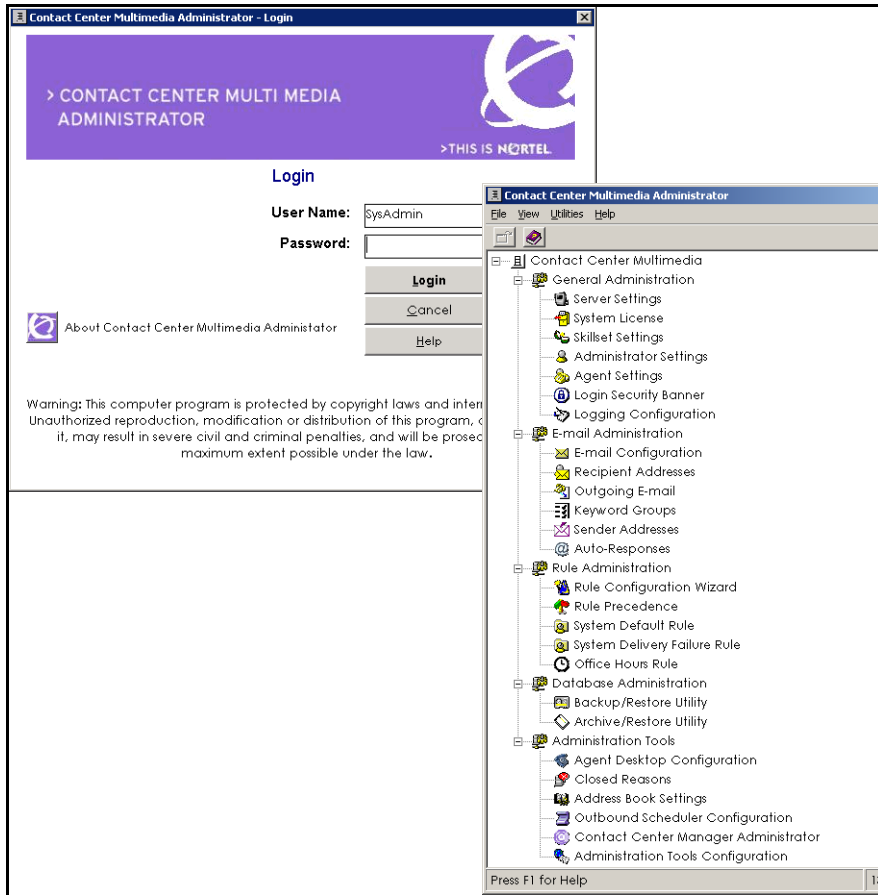
Contact Center Multimedia

The Contact Center Multimedia/Outbound server contains contact center applications that expand the contact center to allow agents to view, respond to, and track requests over the Internet. E-mail and outbound contacts are directed to the first available agent in the skillset who can handle the contact type. If more than one agent is available, the contact is routed to the agent with the highest priority for the skillset. Supervisors and administrators view real-time displays and run historical reports to determine volume and completion statistics.

The Contact Center Multimedia server contains the following components:

- **Multimedia/Outbound database**—The server component includes the Caché database, or multimedia database, that stores all incoming e-mail contacts, outbound campaigns, and associated responses in a structured format within the database.
- **Contact Center Standby server**—You can optionally install a warm standby server, or redundancy server, to shadow the Caché database and provide a quick recovery if the primary Contact Center Multimedia server fails. All multimedia services are disabled on the Standby server until it is required to run as the primary server.
- **Contact Center Multimedia Administrator**—Use the Multimedia Administrator application to configure the properties required for routing contacts. For outbound contacts, you must configure skillsets. For e-mail messages, you must configure E-mail Manager settings such as recipient mailboxes, rules for routing e-mail messages, and skillsets. For Web communications text chats, you must configure the Web Communications Manager settings, such as customer and agent labels and skillsets. You can

use the Multimedia Administrator application for administration and data management tasks such as backing up data in the database.

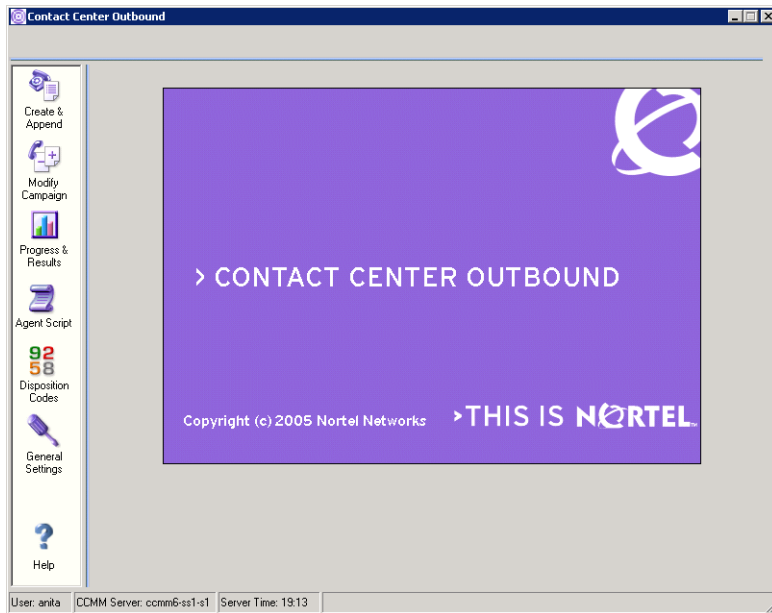


- **Outbound Campaign Management Tool**—You access the Outbound Campaign Management Tool from the Contact Center Manager Administration application. Administrators use the integrated Outbound Campaign Management Tool to create, modify, and monitor outbound campaigns. An outbound campaign is a series of outbound calls to customers for one specific purpose, for example, a customer survey or a

sales promotion. For more information, see the *Contact Center Manager Administrator's Guide*.

ATTENTION

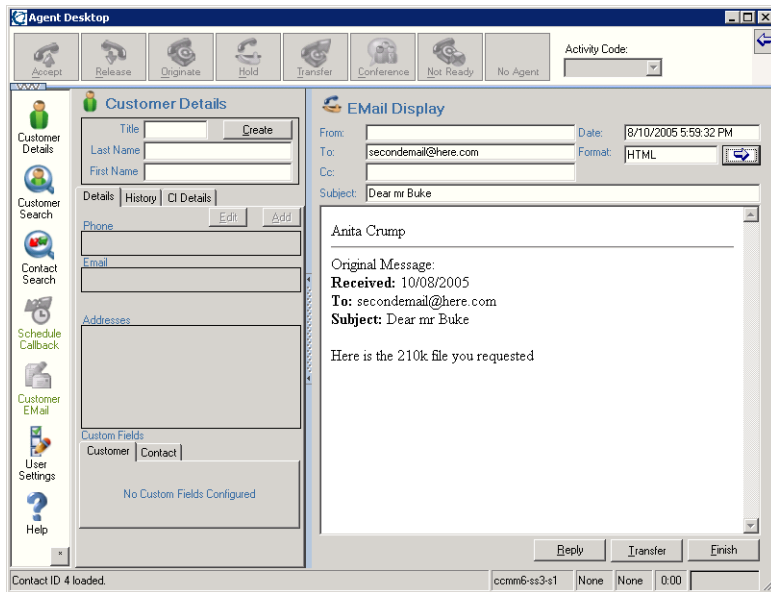
The Outbound Campaign Management Tool for configuring outbound campaigns is only available on the Communication Server 1000/Meridian 1 switch.



- **Contact Center Agent Desktop**—Agents use Internet Explorer to connect to a new Web service-based unified Agent Desktop interface on the Contact Center Multimedia server. The Communication Control Toolkit pushes e-mail, Web requests, outbound contacts, and voice calls to the Agent Desktop interface. Agents use the Agent Desktop interface to retrieve e-mail and outbound campaign information, and customer details and history from the Multimedia database. Agents also use the Agent Desktop application to send e-mail replies and save outbound call details in the multimedia database. The Agent Desktop is deployed using .NET smart technology and accessed by the agent by entering a URL address in Windows Explorer or Internet Explorer.

The Contact Center Agent Desktop provides the agent with customer details, call scripting, preview with auto-dial capability, call rescheduling, and storage of disposition codes and script results for each call. For more information, see the *Contact Center Agent Desktop User Guide*.

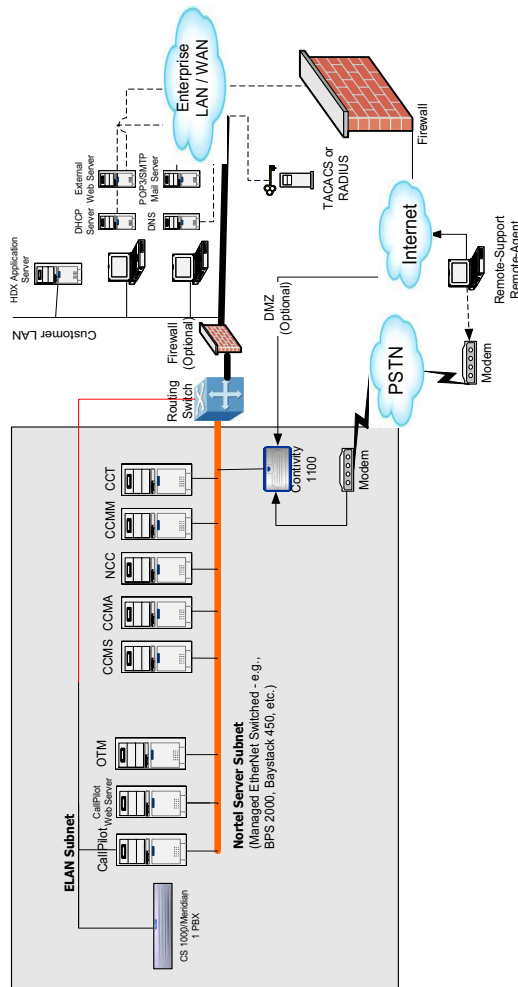
The Contact Center Multimedia server is not used in a SIP-enabled Contact Center; however, you can install the Contact Center Agent Desktop on a Communication Control Toolkit server or another server to facilitate handling of voice contacts on the agent desktop.



- **Migration Utility**—You can use this utility to migrate data from the Symposium Web Center Portal database to the new Contact Center Multimedia database.

Network architecture

The following diagram shows the network architecture for Contact Center 6.0 in a single-node configuration.



The network architecture of Contact Center Manager Server has three requirements:

- routed ELAN subnet
- Nortel server subnet
- single network interface card Contact Center Manager Server configuration

The ELAN subnet must be connected to the Nortel server subnet with one router only.

Nortel Contact Center 6.0 works with the following switches: CS 1000/Meridian 1, CS 2x00/DMS, and MCS 5100. The switch determines the types of contacts customers can use. For example, the CS 1000/Meridian 1 switch supports inbound and outbound voice and e-mail contacts. The CS 2x00/DMS switch supports inbound voice and e-mail contacts. The SIP-enabled contact center interacts with two switches: CS 1000 and MCS 5100. The SIP CTI control is delivered with the CS 1000 signaling server. A SIP-enabled environment supports inbound voice contacts, video, sharing documents, instant messaging, and buddy lists, which are used to enrich customer interaction with the contact center.

Capacity Assessment Tool

The Capacity Assessment Tool (CapTool) helps you to assess the Contact Center Manager Server impact on local area network (LAN) and wide area network (WAN) bandwidth utilization, Contact Center Manager Server configuration requirements, Contact Center Manager Administration server and client configuration requirements, and switch-related configuration requirements for your anticipated call volume.

Prior to purchasing the servers, run CapTool to determine the hardware required for handling the call volume. You can obtain a copy of the CapTool through the Partner Information Center (<http://www.nortel.com/pic>).

Media Application Server

The Media Application Server (MAS) acts as the termination and origination point in SIP-enabled contact centers. Use the MAS to

- support supervisor features such as Observe and Barge-In silently or with a tone
- transfer DTMF digits from the customer to the IVR service
- provide announcements in audio or video
- provide music in audio files
- provide voice/XML dialogs for prompting to collect digits

Installation configurations

Contact Center 6.0 supports the following configurations:

- single-node configuration on CS 1000/Meridian 1
- direct-connect (Knowledge Worker) on CS 1000/Meridian 1
- network configuration on CS 1000/Meridian 1
- single-node configuration on CS 2x00/DMS
- direct-connect (Knowledge Worker) configuration on CS 2x00/DMS
- network configuration on CS 2x00/DMS
- Contact Center Manager Server and Contact Center Manager Administration configuration on CS 2x00/DMS
- multiple node configuration on CS 2x00/DMS
- universal networking
- SIP configuration on MCS 5100

For more detailed information and diagrams, see the *Nortel Contact Center Planning and Engineering Guide*.

Other software that works with Contact Center

You can install other software to work with the components of Contact Center:

- Use Host Data Exchange (HDX) as an optional host computer to run a third-party provider application that receives data from Contact Center Manager Server and returns data (such as an account balance) to the Contact Center Manager Server. Contact Center Manager Server supports up to 10 open interface applications.
- Use the CallPilot/Meridian Mail Client voice mail system (on CS 1000/Meridian 1 only) as a front-end interactive voice response (IVR) or voice service for Contact Center Manager Server.
- Use IVR to allow telephone callers to interact with a host computer using prerecorded messages and prompts. You can use Nortel IVR or third-party IVR systems to provide front-end IVR to calls before they are handed over to Contact Center Manager Server, or in a GIVE IVR command in the scripts after Contact Center Manager Server takes control of the call.
- Use LinkPlexer (on CS 2x00/DMS only) for accommodating multiple applications connected to the Contact Center Manager Server. With LinkPlexer, multiple applications can monitor and control devices on a single link and an application can initiate an operation on a device that impacts another application on the link.

System operations and supported platforms

Introduction

This section provides an overview of Contact Center Release 6.0 switch support and system requirements.

Switch support

Contact Center Release 6.0 provides support for the following switches:

- Nortel Meridian 1 PBX
- Nortel Communication Server 1000 (CS 1000)
- DMS
- SL-100
- Communication Server 2000 (CS 2000 or CS 2x00)
- Communication Server 2100 (CS 2100 or CS 2x00)
- Multimedia Communication Server 5100 (MCS 5100)

Supported switch software versions

The following table shows supported switch software versions for Contact Center Release 6.0:

Switch	Supported versions
Meridian 1 PBX 11C - Chassis	R25.40b, 26
Meridian 1 PBX 11C - Cabinet	R25.40b, 26
Meridian 1 PBX 61C	R25.40b, 26
Meridian 1 PBX 51C	R25.40b, 26
Communication Server 1000	3.0, 4.0, 4.5, 5.0

Switch	Supported versions
DMS	CCM10/SCAI12 to CCM17/SCAI17 SE06/CSAI17 to SE10/SCAI21
SL-100	CCM10/SCAI12 to CCM17/SCAI17 SE06/SCAI17 to SE10/SCAI21
Communication Server 2000	SN06/SCAI17 to SN10/SCAI21
Communication Server 2100	SE06/SCAI17 to SE10/SCAI21
MCS 5100	RIs 3.0/3.5

System requirements

There are updates to the system requirements for Contact Center Release 6.0:

- Platform requirements—Contact Center Release 6.0 requires an increase in minimum requirements for the CPU, memory, and disk space. A DVD drive is required.
- Operating system requirements (servers)—The Contact Center Release 6.0 servers (Contact Center Manager Server, Contact Center Manager Administration, Communication Control Toolkit, and Contact Center Multimedia/Outbound) require Windows Server 2003 Standard Edition or Windows Server 2003 Enterprise Edition operating system.
- Operating system requirements (clients)—The Contact Center Release 6.0 client applications (Contact Center Manager Administration Client, Contact Center Agent Desktop, and Contact Center Manager Server Utility) require Windows XP Professional SP2, Windows 2000 Professional SP4, Windows Server 2003 Standard Edition, or Windows Server 2003 Enterprise Edition operating system.

For complete details about platform and server requirements, see the *Nortel Contact Center Planning and Engineering Guide*.

Documentation suite

All Release 6.0 guides are available in PDF format on the Contact Center DVD. Changes and updates to the guides are available from the Nortel Partner Information Center (www.nortel.com/pic) or Helmsman (www.nortel.com/helmsman). Online Help is also accessible through the Help menu within the applications. You can obtain the third-party programmer's guides through the Developer Partner Program.

Guides

The following guides are available on the Contact Center DVD or on the Nortel Web site (www.nortel.com).

For information about	Refer to	NTP number
Planning and engineering guidelines, and server requirements	<i>Contact Center Planning and Engineering Guide</i>	297-2183-934
	<i>Nortel Contact Center Manager CapTool User's Guide</i>	297-2183-935
Server Requirements	<i>Nortel Contact Center Server and Operating System Requirements Guide</i>	297-2183-263
The Contact Center portfolio	<i>Contact Center What's New in Release 6.0</i>	297-2183-903
Required installation and server data	<i>Contact Center Installer's Roadmap</i> (see www.nortel.com/pic)	297-2183-226
Switch configuration	<i>Contact Center Communication Server 1000/Meridian 1 and Voice Processing Guide</i>	297-2183-931
	<i>Contact Center Manager Switch Guide for Communication Server 2X00/DMS</i>	297-2183-937

For information about	Refer to	NTP number
	<i>SIP Contact Center Switch Configuration Guide</i>	297-2183-962
Server operating system configuration and requirements	<i>Contact Center Manager Server Technical Requirements and Operating System Configuration Guide</i>	297-2183-212
	<i>Contact Center Manager Server Technical Requirements and Operating System Configuration Guide for the co-resident server</i>	297-2183-944
	<i>Contact Center Manager Administration Technical Requirements and Operating System Configuration Guide</i>	297-2183-213
	<i>Communication Control Toolkit Server Technical Requirements and Operating System Configuration Guide</i>	297-2183-215
	<i>Contact Center Multimedia Server Technical Requirements and Operating System Configuration Guide</i>	297-2183-214
	<i>Contact Center 6.0 Security Guide</i>	
	<i>Contact Center Portfolio Service Packs Compatibility and Security Hotfixes Applicability List</i>	

For information about	Refer to	NTP number
Installation, upgrades, migration, and maintenance	<i>Contact Center Manager Server Installation and Maintenance Guide</i>	297-2183-925
	<i>Contact Center Manager Server Installation and Maintenance Guide for the Co-resident Server</i>	297-2183-218
	<i>Contact Center Manager Server Installation and Maintenance Guide for the Standby Server</i>	297-2183-219
	<i>Contact Center Manager Administration Installation and Maintenance Guide</i>	297-2183-926
	<i>Communication Control Toolkit Installation and Maintenance Guide</i>	297-2183-946
	<i>Contact Center Multimedia Installation and Maintenance Guide</i>	297-2183-929
	<i>Nortel Media Application Server Installation and Configuration Guide for Contact Center 6.0</i>	297-2183-227
	<i>Nortel LinkPlexer Installation and Configuration Guide</i>	297-2183-964
Scripting	<i>Contact Center Manager Scripting Guide for Communication Server 1000/Meridian 1 PBX</i>	297-2183-930
	<i>Contact Center Manager Scripting Guide for Communication Server 2X00/DMS</i>	297-2183-936
	<i>Contact Center Manager Database Integration User Guide</i>	297-2183-940

For information about	Refer to	NTP number
Networked contact center	<i>Contact Center Manager Network Control Center Administrator's Guide</i>	297-2183-932
Administering contact centers	<i>Contact Center Manager Administrator's Guide</i>	297-2183-927
Supervising contact centers	<i>Contact Center Manager Supervisor's Guide</i>	297-2183-928
	<i>Contact Center Historical Reporting and Data Dictionary</i>	297-2183-914
Handling contacts	<i>Contact Center Agent Desktop User Guide</i>	297-2183-945

Application online Help

Each Contact Center application contains online Help that explains tasks and describes the windows in the application.

How to get help

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

Finding the latest updates on the Nortel Web site

The content of this documentation was current at the time the product was released. To check for updates to the latest documentation and software for Contact Center 6.0, click one of the following links:

Link to	Takes you directly to the
Latest software	Nortel page for Contact Center located at www.nortel.com/espl .
Latest documentation	Nortel page for Contact Center documentation located at www.nortel.com/support .

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 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

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. 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, you can contact the technical support staff for that distributor or reseller.

Chapter 3

New in this release

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Introduction

This chapter contains information that is important to users who used previous releases of the Nortel contact center software. It describes product rebranding, upgrade paths from previous releases, and improvements to the Contact Center portfolio.

Contact Center portfolio rebranding

Introduction

For Release 6.0, the Symposium portfolio is rebranded as the Nortel Contact Center portfolio. Many of the application names within the Contact Center portfolio are updated to align with the overall portfolio. This section provides an overview of the changes.

Identifying the new product names

The following table provides a list of new application and component names for the Contact Center portfolio.

Former application or component name	Release 6.0 name
Symposium Call Center Server (including Web Client)	Nortel Contact Center – Manager
<ul style="list-style-type: none"> ■ Symposium Call Center Server (server) ■ Network Control Center ■ Symposium Web Client (application server) ■ Configuration Tool ■ Agent Desktop Display 	<ul style="list-style-type: none"> ■ Contact Center Manager Server ■ Contact Center Network Control Center ■ Contact Center Manager Administration ■ Contact Center Manager Configuration Tool ■ Agent Desktop Display
Symposium Web Center Portal	Nortel Contact Center Multimedia/ Outbound
Nortel Networks Communications Control Toolkit	Nortel Communication Control Toolkit

Upgrading from a previous release

Introduction

This section describes the supported software upgrade paths, operating system migration paths, and enhancements for the Contact Center components.

Contact Center Manager Server

Upgrading your server

For upgrade planning considerations, see the *Nortel Contact Center Planning and Engineering Guide*. For detailed installation and upgrade procedures, see the *Nortel Contact Center Manager Server Installation and Maintenance Guide*.

Before you upgrade the Contact Center Manager Server software, you must ensure your new hardware meets the required specifications. For detailed information, see the *Nortel Contact Center Planning and Engineering Guide* or the *Contact Center Manager Server Technical Requirements and Operating System Configuration Guide*.

You can upgrade from the following releases of Symposium Call Center Server to Contact Center Manager Server:

- from Release 4.2 to Release 6.0
- from Release 5.0 to Release 6.0
- from Release 6.0 to Release 6.0

Upgrading from previous releases

Nortel recommends the following upgrade paths.

Release	Action
1.5	Upgrade to Release 4.2, and then upgrade to Release 6.0.
3.0	Upgrade to Release 4.2, and then upgrade to Release 6.0.

Release	Action
4.0	Upgrade to Release 5.0, and then upgrade to Release 6.0.

Installing and configuring the server

A preinstallation checker verifies that a DVD drive exists, the operating system is Windows Server 2003 Standard or Enterprise Edition, the D: partition has adequate space to install the additional new components, and the database size is sufficient to perform a successful migration to Release 6.0. If an error occurs, the installation stops.

The installation is an unattended automatic installation with all configuration data entered up front in the Server Configuration Utility.

The installation includes:

- **Network interface card (NIC) solution**—Changes to the Server Configuration Utility allow administrators to select whether they want to configure one network interface card (NIC) or two. If they select one, the server subnet IP address is entered and no ELAN subnet IP address is prompted. The single-NIC solution requires a routed ELAN subnet. Nortel recommends the single-NIC configuration as future Contact Center Manager Server releases and features (such as SIP Contact Center) do not support the dual-NIC configuration.
- **New components installed**—As part of the Contact Center Manager Server installation, the following new components are installed: Java Virtual Machine (JVM)/Java Runtime Environment (JRE) for Contact Management Framework (CMF) and Session Initiation Protocol (SIP); the MCS application, including SIP stack; Gigaspaces build; the CMF jar file; and the Universal Networking Engine (UNE) component.
- **Flexible licensing**—Release 6.0 uses a License Manager to provide access to features and functions of the Contact Center portfolio in packages.
- **Database partition size**—The maximum database size increases from 64 GB to 128 GB. The maximum partition size increases from 16 GB to 32 GB.
- **Dynamic port allocation**—To control port usage for component communication, use the Server Configuration Utility to configure the range of ports within a specified range to be used for intercomponent messaging.

Installing the standby server

Enhancements for Release 6.0 reduce the complexity of switching from the active Contact Center Manager Server to the standby server and minimize the amount of time required to activate the standby server:

- The standby server retains its computer name and IP address after it is activated (you do not need to manually change the name and IP address to match the primary server, and then restart the server).
- Both the active and standby servers can be added as distinct members of the Windows domain to avoid the requirement for intervention by a domain administrator when the standby server is activated.
- The enhanced Replication Server utility enables users to initiate the entire switchover process to the standby server by running a utility.
- Release 6.0 introduces the ability to replicate the networked contact center.

Providing serviceability and support

Log files provide two new functions:

- Enhancement to the Skillset Promote Utility provides an indication of whether execution of the utility is successful by writing results to a new log file.
- An event log message is generated when a site comes back up after it was filtered out.

The Server Configuration Utility is updated to enforce the correct binding order of Nortel server subnet followed by ELAN subnet; if the ELAN subnet network interface card (NIC) is configured first, an error message appears. (This is only applicable if the server is configured with dual NIC cards.)

Coresiding server applications

For Release 6.0, Contact Center Manager Server, License Manager, Contact Center Manager Administration, Server Utility, and Communication Control Toolkit can all co-reside on the same server. The Server Utility coresiding with Contact Center Manager Administration alone is not supported. The Server Utility can also be installed on a stand-alone client. In a network, the Server Utility can co-reside with the Network Control Center server.

Contact Center Server Utility

The Contact Center Server Utility is a new product. All installations are new installations for this release. The Contact Center Server Utility can be installed on a stand-alone computer, on the Contact Center Manager Server, or in a networked contact center, co-resident with the Network Control Center server.

Contact Center Manager Administration can co-reside with the Release 6.0 Server Utility.

In an environment with Symposium Call Center Server Release 4.2 or 5.0 and Contact Center Manager Server Release 6.0, if administrators want to continue using the Classic Client to maintain the Release 4.2 or 5.0 server, they can keep the Classic Client on the administrator's computer temporarily while the data is migrated from previous releases to Release 6.0. For more information about administering network scenarios, refer to the *Nortel Contact Center Planning and Engineering Guide*.

Contact Center Manager Administration

Upgrading your server

Contact Center Manager Administration supports upgrades from Symposium Web Client Release 4.5 SUS0601v1 (or later).

Security

Security is enhanced on Contact Center Manager Administration with firewalls that limit the range of ports used. Application and Meridian Mail passwords are masked and a warning message is enabled. ActiveX controls are updated for security.

Backing up and restoring data

For Contact Center Manager Administration, you can easily schedule backups of the data stored in Active Directory Application Mode (ADAM) and in data files at the same time, whether Contact Center Manager Administration is stand-alone or co-resident with Contact Center Manager Server, using a new online backup procedure. You can the Microsoft Windows Backup Utility to perform scheduled or manual backups and restores.

Installing and configuring Contact Center Manager Administration

For Release 6.0, the Scripting Manager component is a fully integrated Web-based component; Terminal Services is no longer a prerequisite for installation. The preinstallation checker ensures that the operating system is Windows Server 2003 Standard or Windows Server 2003 Enterprise Edition.

As part of the Contact Center Manager Administration installation, the following new components are installed: Report Creation Wizard, Crystal CE Embedded 10, Crystal Report Viewer 10, SIP reports and Configuration Tool, License Manager Interface, and Outbound report templates.

Installing the Replicating server

With Release 6.0, new features ensure that Contact Center Manager Administration is geographically resilient so that you can replicate the Contact Center Manager Administration database.

- A new procedure provides backups for Contact Center Manager Administration application-specific data that does not reside in ADAM. Data in ADAM cannot be replicated.
- Users can change the name or IP address of the Contact Center Manager Server in the Contact Center Manager Administration tool. This feature lets Contact Center Manager Administration to continue communicating with the server, even though it has a different name.
- There is now an automatic check and update of the server IP address, if a server name change is made in the Configuration component.

Providing serviceability and support

Error messages presented to the end user are reviewed and updated to include a description of the error and the action to be taken by the customer.

Additional troubleshooting scenarios are added to the *Contact Center Manager Administration Installation and Maintenance Guide* to address the stand-alone/co-residency solutions; sample scenarios of error codes are also provided. The IceRTDTrace tool is packaged in a separate MSI file so it can be installed on client computers for troubleshooting Real-Time Display (RTD) issues.

The complete list of Event Codes is included in the *Contact Center Manager Administration Installation and Maintenance Guide* as well as events recommended for trapping.

The CS 1000/M1 Data Extraction Tool is modified to allow the download of trunk numbers without leading zeros (LD 20 and LD 81). For more information about the M1 Data Extraction Tool, see the *Contact Center Manager Administrator's Guide*.

The Audit Trail in Contact Center Manager Administration tracks all changes to the configuration, including the Access and Partition Management, Historical Reporting, Configuration Management, Report Creation Wizard, and Configuration and Scripting.

Contact Center Multimedia/Outbound

Installing on a new server

Because the Multimedia server runs on Windows 2003, while Symposium Web Center Portal Release 4.0 runs on Windows 2000, the Contact Center Multimedia/Outbound server requires the introduction of a new server with a fresh installation of Windows Server 2003. You can use a migration tool to upgrade the data from the previous release.

The installation process includes a preinstallation check, which ensures that the system meets the product requirements and displays status messages. The preinstallation check also determines whether any required third-party software such as Java Run Environment (JRE) or Microsoft .NET Framework is installed; if not, it installs the software.

Contact Center Multimedia/Outbound provides the facility to silently install the software and the database on the target system.

Backing up and restoring data

For Contact Center Multimedia/Outbound, you can start a backup utility from the Multimedia Administrator to back up the data in the Multimedia database. You must back up the incoming and outgoing e-mail attachment folders separately. You can also archive the Multimedia database using an archive utility. In case of server failure, you can restore the database from the backup or the archive. You must use the Microsoft Windows Backup Utility to back up the server configuration.

Installing the Standby server

The Caché database offers database shadowing to provide a near real-time replication of the database to a standby Contact Center Multimedia/Outbound server. You can install the Redundancy server and configure the database shadowing after you install the primary Multimedia server.

Providing serviceability and support

Log files can be created to track errors, warnings, and notices for each application within the Multimedia server.

Coresiding client applications

Contact Center 6.0 Agent Desktop application and the Outbound Campaign Management Tool can co-reside on the same server. These two applications can co-reside with the Symposium Web Center Portal 4.0 Agent Interface temporarily while the migration to Release 6.0 occurs.

Patching

For Contact Center Release 6.0 components, there are two types of patches—Service Updates and Service Update Supplements:

- Service Updates (SU) contain many fixes. You must remove any other patches before installing an SU because all previous fixes are included in the SU. Any subsequent SU always contains all fixes from previous SUs or Service Update Supplements (SUS).
- Service Update Supplements (SUS) are patches that contain a small number of fixes and are installed on top of the last SU.

Product changes

Introduction

This section provides an overview of product changes for the Contact Center Manager Server, Contact Center Manager Administration, and Contact Center Multimedia/Outbound server.

Classic Client not available

The Classic Client software is not part of Contact Center 6.0. Most of the functionality from the Classic Client software is available in Contact Center Manager Administration. For more information about Contact Center Manager Administration, see “Contact Center Manager Administration” on page 17. The remaining server maintenance and monitoring utilities are part of the Contact Center Server Utility. For more information about the Contact Center Server Utility, see “Server Utility” on page 17.

Contact Center Manager Server product improvements

Contact Center Manager Server contains the following product improvements for Release 6.0.

Open Queue

You can use the Open Queue feature in Contact Center 6.0 to route multimedia contacts to agents using the scripting and skillset routing features traditionally associated with telephony calls. The Open Queue feature provides a generic mechanism that third-party software applications can use to provide access to Contact Center workflow, queueing, routing, and reporting for their contacts in an integrated manner.

The contact management programming interface is Java API. Third-party applications are built with Java libraries supplied by Nortel. The Open Queue specification for contacts supports create, read, and delete operations for contacts. It also supports a set of mutable and immutable intrinsics associated

with the contacts. The workflow script accesses the values in the intrinsics and uses them to make routing decisions. The Contact Center Multimedia applications use the Open Queue API for access to Contact Center Manager Server, replacing the Dynamic Transaction Handler (DTH) mechanism.

The Open Queue feature works in conjunction with agent licensing to provide agents with contact handling capability to match the type of contact. Contact Center Multimedia provides a desktop that is integrated with Communication Control Toolkit and that supports multiple contact types, including e-mail and outbound. These contact types are configured in Contact Center Manager Server and administered using Contact Center Manager Administration. For third-party applications, the agent interaction with Open Queue contacts takes place through the Communication Control Toolkit, which delivers events relating to Open Queue contacts to desktop applications. Open Queue also delivers contact-control commands (such as answer and close actions), initiated by desktop applications to Contact Center Manager Server contact processing components.

Default ACD Queue Management

A contact center administrator can assign a default Automatic Call Distribution (ACD) Queue to an agent using Contact Center Manager Administration. This default ACD Queue is delivered to the switch during the agent logon process. The contact center administrator now has control over moving agents of similar skillsets to the same ACD Queue so that during the default behavior of the switch, agents of similar skillsets receive relevant calls. This feature is supported only on the Meridian 1 PBX/Communication Server switch platform.

Universal networking

You can use Network Skill-Based Routing to route voice calls between networked sites in a mixed switch environment. For more information about the supported switch environments, see “System operations and supported platforms” on page 30.

Universal networking provides the ability to deploy virtual contact centers across all Nortel switch platforms and Nortel Interactive Voice Response (IVR) systems, increases deployment flexibility, and increases network-wide agent utilization and productivity.

Geographic redundancy

The Contact Center portfolio contributes to the high availability solution by allowing alternative operational sites into geographically distributed configurations. In the event of a disaster that causes a total outage at the primary site, the alternative site can be started quickly. This is also applicable to local redundancies, addressing the problem of a single component failure within a site.

Note: The geographic resiliency enhancements are not applicable when the Contact Center Manager Server is configured as a SIP contact center.

Increase in configured agents

The maximum number of configured agents increases from 6000 to 10000. The number of active agents is 3350.

Increase in call variables

The maximum number of available call variables increases from 20 to 50.

Increase in skillsets per agent

The maximum number of skillsets assigned to an agent increases from 50 to 100.

Reporting

Contact Center Manager Server offers the following reporting improvements:

- Virtual network skillset calls offered and calls abandoned statistics are added to the Skillset view. These statistics provide a consistent view of activity across a virtual skillset.
- New application historical statistics include Talk Time, Post-Call Processing Time, Wait Time, Dialed Number Out External Talk Time, and Dialed Number Out Internal Talk Time.
- New skillset historical statistics include Post-Call Processing Time, Talk Time, Wait Time, Dialed Number Out External Talk Time, and Dialed Number Out Internal Talk Time.
- Application call answer delay and call abandoned delay pegging is more accurate: statistics are calculated from the time the call enters the primary application rather than from the Master script.

- New Agent By Skillset and Agent By Application statistics include Calls Offered, Ring Time, Calls Returned To Queue, Calls Transferred, Calls Returned To Queue Due Timeout, Calls Conferenced, Dialed Number Out Internal Talk Time, and Dialed Number Out External Talk Time.
- Additional network consolidated views are available for the networked contact center, similar to the network consolidated Skillset view. The new views are Application, Agent Performance, Agent By Application, and Agent By Skillset.
- Some of the statistics in existing historical reports require a new interpretation due to the effect of multimedia pegging. For example, Calls Answered statistics are updated to include multimedia contacts and are reinterpreted as Contacts Accepted. Similarly, Talk Time statistics are reinterpreted as Processing Time. For details about the statistics affected and their new definitions, see the *Historical Reporting and Data Dictionary*.

Note: The labels of these statistics as they appear in the reports and the reporting open interface database views are not changed for Release 6.0.

Note: The new statistics added to the nodal Agent By Application and Agent By Skillset and the networked contact center are available in the Report Creation Wizard.

Contact Center Manager Administration improvements

The following improvements to the Contact Center Manager Administration work on a Symposium Web Client server 5.0 that is connected to a Release 6.0 Contact Center Manager Server.

Contact Center Manager Administration Web client improvements

General improvements to the Contact Center Manager Administration include the following.

Toolbar updates

- view server time and connection status
- access additional NTP titles

Configuration improvements

- synchronize data from the Network Control Center to a particular site in the network
- view routing table assignment schedules
- use the Server Utility to check the license configuration
- update icons for IP phoneset displays

Contact Center Management

General improvements to the Contact Center Management component of the Contact Center Manager Administration include the following:

- add or delete agents in bulk
- display the current status of an agent (logged on or logged off) in all Supervisor, Skillset, Agent Details, and Assignment views
- assign a group of agents to a new supervisor
- run user-defined assignments at any time
- view the schedule of all agent to skillset and agent to supervisor assignments
- choose a priority for agent to skillset assignments
- change skillset assignments for a group of agents all at once
- limit the number of skillsets assigned to agent
- apply assignment changes to multiple agents simultaneously

Access and Partition Management

General improvements to the Access and Partition Management component of the Contact Center Manager Administration include the following:

- use dynamic standard partitions that are easier to configure
- use new access classes for real-time reporting and historical reporting
- use access levels for agent to skillset assignments and agent to supervisor assignments

Real-Time Displays

General improvements to the Real-Time Displays component of the Contact Center Manager Administration for tabular reports include the following:

- use a collection to arrange up to six tabular and graphical displays
- configure colors for standard tabular displays where the threshold is below level 1
- choose filters
- link from Standard Skillset report to Skillset view
- link from Standard Supervisor report to Supervisor view

General improvements to the Real-Time Displays component of the Contact Center Manager Administration for graphical reports include the following:

- share graphical displays
- use a collection to arrange up to six tabular and graphical displays
- use a collection to display up to 25 individual billboards
- show service level percentage on charts
- chart labels (data element names on the y-axis or x-axis of bar charts)
- view threshold timers on billboards
- change background color on billboards
- view non-staffed skillsets
- improve agent maps:
 - show an agent's personal dialed number (DN) in the title bar of the agent map
 - exclude logged off agents from the agent map
 - resize the agent map
 - create threshold alerts (flashing text on the agent map) when a threshold is exceeded
 - provide more information about agents
 - show a linked display from the agent map

Historical Reporting

General improvements to the Historical Reporting component of the Contact Center Manager Administration include the following:

- view and print all historical report schedules
- modify report templates on the network drive

- update remote site reports when the Contact Center Manager Server IP address changes
- Configuration Report for Default Queue Management
- performance enhancements

For more information about reports, see “Reporting” on page 51.

Report Creation Wizard

Report Creation Wizard is a new reporting feature that runs in Contact Center Manager Administration 6.0 and is accessible through the main Historical Reporting interface. Use Report Creation Wizard to create, maintain, and modify custom ad hoc reports through a user-friendly interface. You can then import and schedule the reports in Historical Reporting. In previous releases of Contact Center Manager Administration (formerly known as Symposium Web Client), users had to be familiar with the Crystal Reports Designer and Structured Query language (SQL) to modify certain aspects of user-created reports, such as

- the databases, table, and views to use within the report
- the field and column data for the report
- the title and subtitle, and other aspects of the report’s appearance

After you create reports through Report Creation Wizard, you can work with them in the Historical Reporting component and use the same access permissions, partitions, and filter sets as you can with any other report. You can also use the Historical Reporting interface to schedule reports that you create with the Report Creation Wizard.

Scripting improvements

The requirement for Terminal Services is replaced by the script manager as a fully integrated Web-based solution. In addition to providing the functionality previously available, the Web-based scripting manager also provides the ability to

- list all scripts
- sort column headers

You can use the script editor to

- edit, validate and activate scripts
- view multiple scripts
- import and export scripts
- search for unused script variables
- search and replace within a script
- highlight the line in the script with an error
- rename inactive scripts

Number of active and configured supervisors

The maximum number of active supervisors increases from 150 to 350.

The maximum number of configured supervisors increases from 300 to 600.

Agent ID digit support

Contact Center Manager Administration supports 10-digit agent IDs for CS 2x00/DMS and 16-digit agent IDs for Meridian 1 PBX/CS 1000. Administrators can configure the system to use 4- to 10-digit IDs for CS2x00/DMS.

Agent Desktop Display enhancements

The following functionality is added to the Agent Desktop Display:

- An agent can run Agent Desktop Display without being logged on.
- An agent can hide the title bar.
- The space between columns is reduced.
- The client can be configured with active and standby servers using a host name, not just an IP address.
- You can disable automatic downloads of upgrades to client PCs.

Contact Center Multimedia server improvements

Contact Center Multimedia provides the following improvements based on the Symposium Web Center Portal server:

Simplified installation

Installation of the Caché database software is automated and, where possible, third-party software is silently installed, greatly reducing installation time. In addition, Release 6.0 incorporates individual components into one installation package and provides a common look and feel using industry-standard dialog boxes.

Contact Management Framework (CMF) integration

The mechanism for routing contacts was telephony-based for previous releases. Routing and reporting for contacts, both for telephony and multimedia, is software-based.

Unified reporting and administration

For Release 6.0, administrators run multimedia reports using the Report Creation Wizard and view real-time display information about multimedia contacts on the Contact Center Manager Administration real-time displays. Administrators also configure user and skillset information and supervisor logon functionality in Contact Center Manager Administration. The real-time reporting component from Symposium Web Center Portal Release 4.0 is removed. For more information, see “Report Creation Wizard” on page 55.

Improved agent interaction

All agent interaction with the server occurs through firewall-friendly Secure Web Services from the Multimedia/Outbound server, with the option to configure the system to transmit all data between the client and the server in encrypted form using Secure Sockets Layer (SSL).

Increase in number of contacts handled

The Contact Center Multimedia/Outbound server handles up to 5000 contacts per hour. This maximum applies to all multimedia contact types.

Contact Center Manager Server support

The Contact Center Multimedia/Outbound server aligns with Contact Center Manager Server to support a maximum of 9900 configured agents.

Increase in number of active agents

The Contact Center Multimedia/Outbound server supports a maximum of 600 active agents.

Storage capacity

The Contact Center Multimedia/Outbound database supports 12 months of storage based on an average size of 2 million contacts.

Appendix A

Acronyms in Contact Center

In this chapter

Acronyms

60

Acronyms

The following list defines commonly used acronyms in Contact Center.

Acronym	Definition
ACD	Automatic Call Distribution
API	Application Programmer Interface
ASA	Average Speed of Answer
ASE	Sybase Adaptive Server Enterprise version
CC	Contact Center
CCM	Contact Center Manager
CCMA	Contact Center Manager Administration
CCMM	Contact Center Multimedia
CCMS	Contact Center Manager Server
CCT	Communication Control Toolkit
CLAN	Customer Local Area Network (new name: Server Subnet)
CORBA	Common Object Request Broker Architecture
CSE	Call Server for Enterprise
CMF	Contact Management Framework
CTI	Computer-Telephony Integration
DHCP	Dynamic Host Control Protocol
DMI	Desktop Management Interface
DMS	Digital Multiplex Switch
DN	Directory Number

Acronym	Definition
DSN	Data Source Name
DTMF	Dual Tone Multi Frequency
ELAN	Embedded Local Area Network
GA	General Availability
GRTD	Graphical Real-Time Display
GUI	Graphical User Interface
HDC	Historical Data Collector
HDM	Historical Data Manager
HDX	Host Data Exchange
IDL	Interface Definition Language
IP	Internet Protocol
IPT	Integrated Project Team
IVR	Interactive Voice Response
LAN	Local Area Network
LIA	Longest Idle Agent
LM	License Manager
LMIF	License Manager Interface
MAS	Media Application Server
MAT	Meridian Administration Terminal
NACD	Network ACD
NCC	Network Control Center
NIC	Network Interface Card

Acronym	Definition
OC	Open Client
OCMT	Outbound Campaign Management Tool
ORB	Object Request Broker
PBX	Private Branch Exchange
PLM	Product Line Management
PRD	Product Requirements Document or Platform Recovery Disk
PVI	Platform Vendor Independence
RCW	Report Creation Wizard
RSM	Real-time Statistics Multicast
RTD	Real-time Data API
RTI	Real-time Interface
SEI	Symposium Event Interface
SCCS	Symposium Call Center Server
SIP	Session Initiated Protocol
SQL	Structured Query Language
SWCP	Symposium Web Center Portal
SU	Service Update package
SUS	Service Update Supplement
TAPI	Telephony Application Program Interface
UNE	Universal Networking Engine
USB	Universal Serial Bus
VNS	Virtual Network Services

Acronym	Definition
VPN	Virtual Private Network

Glossary

A

access class

A collection of access levels that defines the actions a member of the access class can perform within the system. For example, a member of the Administrator access class can be given a collection of Read/Write access levels.

access level

A level of access or permission given to a particular user for a particular application or function. For example, a user can be given View Only access to historical reports.

activated script

A script that is processing calls or is ready to process calls. Before you can activate a script, you must first validate it.

active server

In a system with a Replication Server, the server that is providing call processing and administration services.

activity code

A number that agents enter on their phoneset during a call. Activity codes provide a way of tracking the time agents spend on various types of incoming calls. They are also known as Line of Business (LOB) codes. For example, the activity code 720 can be used to track sales calls. Agents can then enter 720 on their agent desktop applications during sales calls, and this information can be generated in an Activity Code report.

adapter

Hardware required to support a particular device. For example, network adapters provide a port for the network wire. Adapters can be expansion boards or part of the computer's main circuitry.

administrator

A user who sets up and maintains Contact Center Manager and Contact Center Multimedia.

agent

A user who handles inbound and outbound voice calls, e-mail messages, and Web communications.

agent logon ID

A unique identification number assigned to a particular agent. The agent uses this number when logging on. The agent ID is not associated with any particular phoneset.

application

1. A logical entity that represents a Contact Center Manager script for reporting purposes. The Master script and each primary script have an associated application. The application has the same name as the script it represents. 2. A program that runs on a computer.

application program interface

A set of routines, protocols, and tools that programmers use to develop software applications. APIs simplify the development process by providing commonly used programming procedures.

application server

The server on which the Contact Center Manager Administration software is installed. This server acts as the middle layer that communicates with Contact Center Manager Server and makes information available to the client PCs.

associated supervisor

A supervisor who is available for an agent if the agent's reporting supervisor is unavailable. *See also* reporting supervisor.

automatic call distribution

A means of automatically distributing an organization's incoming calls among a number of answering positions (ACD agents). Automatic call distribution is useful in operations where callers want a service rather than a specific person. Calls are serviced in the order they arrive and are distributed so that the workload at each answering position is approximately equal.

automatic call distribution call

A call to an ACD-DN. ACD calls are distributed to agents in an ACD group based on the ACD routing table on the switch. *See also* automatic call distribution directory number.

automatic call distribution directory number

A DN associated with an ACD group. Calls made to an automatic call distribution directory number are distributed to agents belonging to the group, based on the ACD routing table on the switch.

automatic call distribution routing table

A table configured on the switch that contains a list of ACD-DNs used to define routes for incoming calls. This ensures that incoming calls not processed by Contact Center Manager Server are queued to ACD groups and handled by available agents.

Automatic Number Identification

A telephony feature that provides the originating local telephone number of the caller.

C**call priority**

The priority given to a request for a skillset agent in a QUEUE TO SKILLSET or QUEUE TO NETWORK SKILLSET script element. This priority is used only in queuing a pending request in the pending request queue corresponding to the required skillsets. This allows pending requests with greater priority in a skillset to be presented to agents before calls of lesser priority. Call priority has a range of 1 to 6, with 1 having the greatest priority. Six priorities are used to fully support the many queuing variations provided by existing NACD functionality. Call priority is maintained at target nodes for network call requests.

call treatment

A script element that enables you to provide handling to a call while it is waiting to be answered by a contact center agent. For example, a caller can hear a recorded announcement or music while waiting for an agent.

call variable

A script variable that applies to a specific call. A call variable follows the call through the system and is passed from one script to another with the call.

CallPilot

A multimedia messaging system you can use to manage many types of information, including voice messages, fax messages, e-mail messages, telephone calls (including conferencing), calendars, and directories.

central processing unit

The component of a computer that performs the instructions of computer programs. Also known as a processor or microprocessor.

client

The part of Contact Center Manager Server that runs on a personal computer or workstation and relies on the server to perform some operations. Two types of client are available: Server Utility and Contact Center Manager Administration. *See also* server.

Communication Control Toolkit

A client/server application that integrates a telephone on a user's desktop with client- and server-based applications.

Computer-Telephony Integration

An application that enables a computer to control telephone calls.

An agent tool that enables contact center agents to provide intelligent and personalized customer care. Agents use a personal computer to access the telephony and multimedia functions.

Contact Center – Manager

A client/server contact center solution for varied and changing business requirements. It offers a suite of applications that includes call processing and agent handling, management and reporting, networking, and third-party application interfaces.

Contact Center Manager Administration

A browser-based tool for contact center administrators and supervisors use for managing and configuring a contact center and its users, defining access to data, and viewing real-time and historical reports. The Contact Center Manager Administration software is installed on an application server. *See also* Contact Center Manager Administration server.

Contact Center Manager Administration server

The server on which the Contact Center Manager Administration software is installed. This server acts as the middle layer that communicates with Contact Center Manager Server and makes information available to the client PCs.

Contact Center Manager Server

This server is responsible for functions such as the logic for call processing, call treatment, call handling, call presentation, and the accumulation of data into historical and real-time databases.

Contact Center Multimedia server

A client/server contact center application that expands inbound telephony capabilities to include outbound voice, e-mail, and Web communications.

Contact Center standby server

The server that contains an up-to-date backup version of the Contact Center Manager Server database for use if the active server fails. The database is kept up-to-date by the Replication Server.

controlled directory number

A special directory number that allows calls arriving at the switch to be queued when the CDN is controlled by an application such as Contact Center Manager Server. When a call arrives at this number, the switch notifies the application and waits for routing instructions, which are performed by scripts in Contact Center Manager Server.

Customer Local Area Network

The LAN to which your corporate servers, third-party applications, and desktop clients connect.

Customer Relationship Manager

An application that provides the tools and information that an organization requires to manage its customer relationships.

D**default skillset**

The skillset to which calls are queued if they are not queued to a skillset or a specific agent by the end of a script.

Dialed Number Identification Service

An optional service that allows Contact Center Manager Server to identify the phone number dialed by the incoming caller. An agent can receive calls from customers calling in on different DNISs and, if the DNIS is displayed on the phoneset, can prepare a response according to the DNIS.

directory number

The number that identifies a phoneset on a switch. The directory number (DN) can be a local extension (local DN), a public network telephone number, or an automatic call distribution directory number (ACD-DN).

E**Emergency key**

A key on an agent's phoneset that, when pressed by an agent, automatically calls their supervisor to notify the supervisor of a problem with a caller.

event

1. An occurrence or action on Contact Center Manager, such as the sending or receiving of a message, the opening or closing of an application, or the reporting of an error. Some events are for information only, while others can indicate a problem. Events are categorized by severity: information, minor, major, and critical. 2. An action generated by a script command, such as queuing a call to a skillset or playing music.

F**firewall**

A set of programs that protects the resources of a private network from external users.

H

Host Data Exchange

A rich scripting language provided with Contact Center – Manager to control treatment of calls.

Hypertext Transfer Protocol

The set of rules for transferring data on the World Wide Web.

I

Internet Protocol address

An identifier for a computer or device on a TCP/IP network. Networks use TCP/IP to route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four values separated by periods. Each value can be 0 to 255 (for example, 1.160.10.240).address.

L

local area network

A computer network that spans a relatively small area. Most LANs connect workstations and personal computers and are confined to a single building or group of buildings.

M

Multimedia database

A Caché database used to store customer information and contact details for outbound, e-mail, and Web communication contacts.

N

network interface card

An expansion board that enables a PC to connect to a local area network (LAN).

O

outbound campaign

A group of outgoing calls from the contact center for a specific purpose, for example, customer satisfaction surveys.

P

pegging

The action of incrementing statistical counters to track and report on system events.

phoneset

The physical device, connected to the switch, to which calls are presented. Each agent and supervisor must have a phoneset.

phoneset display

The display area on an agent's phoneset where information about incoming calls can be communicated.

public switched telephone network

The international network of private and government-owned voice-oriented public telephone networks.

R**redundant server**

A warm standby server used for shadowing the Multimedia database on the Multimedia server and providing a quick recovery if the primary server fails.

Replication Server

A server that backs up the active Contact Center Manager Server to the standby Contact Center Manager Server in real time.

reporting supervisor

The supervisor who has primary responsibility for an agent. When an agent presses the Emergency key on the phoneset, the emergency call is presented to the agent's reporting supervisor. *See also* associated supervisor.

S**script**

A set of instructions that relates to a particular type of call, caller, or set of conditions, such as time of day or day of week.

server

A computer or device on a network that manages network resources. Examples of servers include file servers, print servers, network servers, and database servers. Contact Center Manager Server is used to configure the operations of the contact center. *See also* client.

server subnet

The subnet to which the Nortel servers, such as Contact Center Manager Server, Network Control Center, Contact Center Manager Administration, Contact Center Multimedia, and CallPilot are connected.

service level

The percentage of incoming calls answered within a configured number of seconds.

Service Update

A Contact Center supplementary software application that enhances the functionality of previously released software by improving performance, adding functionality, or correcting a problem discovered since the original release. All previous Service Updates (SU) for the release are included in the latest Service Update. For example, SU02 contains the contents of SU01 as well as the fixes delivered in SU02. SU03 contains SU01, SU02 and the fixes delivered in SU03. *See also* Service Update Supplementary.

Service Update Supplementary

A stand-alone Contact Center supplementary software application installed on top of a specific Service Update (SU). It does not contain the contents of previous SUs. The next SU includes SUSs built on top of previous SUs. For example, SUS0301 is installed on top of SU03. SU04 contains SU03 and SUS0301 (and any subsequent SUSs built on top of SU03). *See also* Service Update.

Simple Network Management Protocol

A systematic way of monitoring and managing a computer network. The SNMP model consists of four components:

- managed nodes, which are any device, such as hosts, routers, and printers, capable of communicating status to network-management systems through an SNMP management process called an SNMP Agent
- management stations, which are computers running special network management software that interact with the agents for status
- management information, which is conveyed through exact specifications and format of status specified by the MIB

- Management Protocol or SNMP, which sends messages called protocol data units (PDUs)

site

A system using Contact Center Manager Server that can be accessed using Server Utility.

skillset

A group of capabilities or knowledge required to answer a specific type of call.

standby server

A server that contains an up-to-date version of the database, for use when the active server becomes unavailable.

supervisor

A user who manages a group of agents. *See also* associated supervisor and reporting supervisor.

T**telephony**

The science of translating sound into electrical signals, transmitting them, and then converting them back to sound. The term is used frequently to refer to computer hardware and software that perform functions traditionally performed by telephone equipment.

telephony switch

The hardware that processes calls and routes them to their destination.

Telephony Application Program Interface

An interface between the switch and an application that controls the telephone on a user's desktop.

threshold

A value for a statistic at which system handling of the statistic changes.

U

utility

A program that performs a specific task, usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives, printers, and other devices.

V

variable

A placeholder for values calculated within a script, such as CLID. Variables are defined in the Script Variable Properties sheet and can be used in multiple scripts to determine treatment and routing of calls entering Contact Center Manager Server.

Virtual Private Network

A private network that is configured within a public network to take advantage of the economies of scale and management facilities of large networks.

Voice over IP

Voice traffic that is transmitted in digital format using the IP protocol.

W

wide area network

A computer network that spans a relatively large geographical area. Typically, a WAN consists of two or more local area networks (LANs). The largest WAN in existence is the Internet.

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☐ Intermediate

☐ Experienced

☐ Programmer

2. How do you use this book?

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☐ Procedural

☐ Reference

☐ Problem solving

3. Did this book meet your needs?

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☐ No

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4. What chapters, sections, or procedures did you find hard to understand?

5. What information (if any) was missing from this book?

6. How could we improve this book?

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Contact Center Documentation Research and Development Prime, Nortel, Mervue Business Park,
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Reader Response Form

Nortel Contact Center

What's New in Release 6.0

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