



Avaya Aura™ Contact Center
Installation

NN44400-311

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New in this release

The following sections detail what is new in *Avaya Aura™ Contact Center Installation* (NN44400-311) for Release 6.0/6.1.

Navigation

- [Features \(page 7\)](#)
- [Other changes \(page 9\)](#)

Features

See the following sections for information about feature changes:

- [Installation DVD Controller \(page 7\)](#)
- [Multimedia only installation \(page 7\)](#)
- [High Availability \(page 7\)](#)
- [Licensing options \(page 8\)](#)

Installation DVD Controller

The Contact Center DVD provides a consistent installation for all server software. You must configure all preinstallation data before you install the application, but you can change the settings using the Configuration Utility after installation. For co-resident installations, the system collects installation data for all co-resident applications before you install any application.

Multimedia only installation

The Contact Center DVD supports installing a non-voice or multimedia only set of Contact Center applications.

High Availability

Contact Center supports High Availability hot standby resiliency for Contact Center Manager Server (CCMS), Communication Control Toolkit (CCT), Contact Center Multimedia (CCMM), and Contact Center Manager Administration (CCMA).

One set of server applications (a CCMS, a CCT, a CCMA, and an optional CCMM) actively processes scripts and contacts. This set is called the active set. Another set of server applications in the same contact center system runs in hot standby mode. The server applications monitor and shadow active applications in the system but do not process calls. The standby server monitors the corresponding active server. Each active and standby pair of applications forms a resilient or replication pair. If any active application fails, the standby applications, running in hot standby mode, recognize this failure and start processing. Configuration for standby applications must be identical to the active applications. Configuration changes to the active system during normal operation are automatically copied to the standby applications. The standby

applications are therefore configured correctly if they must take over processing from the active systems. Statistical data is also automatically copied to the standby applications.

For Contact Center Manager Administration, the standby CCMA replicates the active CCMA server, but CCMA services are not monitored. You must manually change over to the standby CCMA if the primary CCMA fails; the CCMA switchover does not occur automatically.

High Availability is a licensed feature. It is enabled when you purchase a standby server license.

Geographic Redundancy nodes are similar to the Standby Servers but are used only to shadow data from the Active Server; they have no other responsibility. Geographic Redundancy nodes do not automatically take over if the active system fails. If the Standby Server and Active Server are in the same building then a Geographic Redundancy node on a remote site provides additional data protection by maintaining a remote copy of the configuration and statistical information.

For example, if a CCMM Standby Server shadows a CCMM Active Server, the CCMM Geographic Redundancy node connects to the Managed IP address of the CCMM Active Server. If the CCMM Active Server fails, the CCMM Standby Server is configured correctly and automatically takes over control. After this failure, the new CCMM Active Server uses the CCMM Managed IP address and the CCMM Geographic Redundancy node continues to shadow CCMM information using this Managed IP address.

For information about installing the High Availability standby server software, see

- [Contact Center Manager Server standby software installation \(page 135\)](#)
- [CCMA standby pre-install configuration \(page 145\)](#)
- [Contact Center Manager Administration standby software installation \(page 155\)](#)
- [Communication Control Toolkit standby software installation \(page 163\)](#)
- [Contact Center Multimedia standby software installation \(page 167\)](#)

Licensing options

Contact Center supports Essential, Nodal Enterprise, Corporate Enterprise, Nodal Network Control Center (NCC), and Corporate NCC licensing modes:

- Essential licensing supports a single server voice-only contact center with less than 100 agents.
- Nodal Enterprise licensing supports a single contact center installation.
- Corporate Enterprise licensing supports a network of contact center installations.
- Nodal and Corporate NCC are required when installing a Network Control Center.

You can maintain a secondary License Manager, which takes over the licensing if the primary License Manager fails. For more information about licensing, see [License Manager installation \(page 49\)](#).

Other changes

See the following sections for information about changes that are not feature-related.

- [Third-party product installation \(page 9\)](#)
- [Windows Server 2008 Release 2 support \(page 9\)](#)

Third-party product installation

A chapter contains information about the Media Application Server (MAS) and CCT-IVR installation for automatic handling of contacts in Contact Center.

The MAS installation applies only to a SIP-enabled contact center.

For more information about MAS and CCT-IVR, consult the user documentation for these products.

Windows Server 2008 Release 2 support

Contact Center server software is now supported only on Windows Server 2008 Release 2. All information about configuring Windows settings and installing the operating system are updated in this document.

New in this release

Introduction

This document describes how to install and un-install all server software for Avaya Aura™ Contact Center Release 6.0/6.1.

You can install Contact Center in various configurations to accommodate hardware availability and functionality preferences. You can install the software with the following co-resident combinations:

- Contact Center Manager Server, Contact Center License Manager, and Contact Center Manager Server Utility
- Contact Center Manager Server, Contact Center Manager Administration
- Contact Center Manager Server, Contact Center Manager Administration, and Communication Control Toolkit
- Contact Center Manager Server, Contact Center License Manager, Contact Center Manager Server Utility, Contact Center Manager Administration, and Communication Control Toolkit
- Contact Center Manager Administration and Security Framework
- Contact Center Manager Server, Contact Center License Manager, Contact Center Manager Server Utility, Contact Center Manager Administration, Communication Control Toolkit, and Contact Center Multimedia
- Contact Center Manager Server, Contact Center License Manager, Contact Center Manager Server Utility, Contact Center Manager Administration, Communication Control Toolkit, Media Application Server, and Contact Center Multimedia

You can install Contact Center software in various environments:

- Avaya Communication Server 1000
- Microsoft Office Communication Server
- Avaya Aura™ Unified Communications platform
- Non-voice multimedia only

Prerequisites

- Read *Avaya Aura™ Contact Center Overview* (NN44400-111).
- Read *Avaya Aura™ Contact Center Fundamentals* (NN44400-110).
- Read *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Complete the *Avaya Aura™ Contact Center Installation Checklist* (NN44400-310).
- Understand the features you purchased with Contact Center.
- Know on which server you want to install each Contact Center component.

Introduction

- Determine your required network components and configuration based on the information in the *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that you have the Contact Center Release 6.0/6.1 DVD.
- Ensure that your servers, clients, and network meet the minimum system requirements based on the *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that your PABX is configured. For more information about configuring the PABX, see *Avaya Aura™ Contact Center Configuration – Avaya CS1000 Integration* (NN44400-512) or *Avaya Aura™ Contact Center SIP Commissioning* (NN44400-511) or *Avaya Aura™ Contact Center Configuration – Avaya Aura™ Unified Communications Platform Integration* (NN44400-521).
- Ensure that all software is installed on the servers using a common administration account.

Navigation

- [Avaya Aura™ Contact Center software installation \(page 15\)](#)
- [Server preparation \(page 21\)](#)
- [Contact Center Manager Server software installation \(page 35\)](#)
- [License Manager installation \(page 49\)](#)
- [Server Utility software installation \(page 53\)](#)
- [Contact Center Manager Administration primary server software installation \(page 57\)](#)
- [Security Framework software installation \(page 71\)](#)
- [Communication Control Toolkit software installation \(contact center\) \(page 75\)](#)
- [Contact Center Multimedia software installation \(page 107\)](#)
- [Agent Desktop Telephony Toolbar software installation \(page 79\)](#)
- [Network Control Center software installation \(page 83\)](#)
- [Communication Control Toolkit software installation \(knowledge worker\) \(page 89\)](#)
- [Co-resident server software installation \(page 93\)](#)
- [CCT-IVR software installation \(page 105\)](#)
- [Media Application Server software installation \(page 117\)](#)
- [Agent Desktop Displays software installation \(page 127\)](#)
- [Agent Desktop client software installation \(page 121\)](#)
- [Service Creation Environment client software installation \(page 125\)](#)
- [Avaya Communication Server 1000 Data Extraction Tool installation \(page 131\)](#)

- [Contact Center Manager Server standby software installation \(page 135\)](#)
- [Contact Center Manager Administration standby software installation \(page 155\)](#)
- [Communication Control Toolkit standby software installation \(page 163\)](#)
- [Contact Center Multimedia standby software installation \(page 167\)](#)
- [Server software uninstallation \(page 175\)](#)
- [CCTIVR software uninstallation \(page 179\)](#)
- [Appendix: Free open source software licensing \(page 181\)](#)

Avaya Aura™ Contact Center software installation

The Contact Center Release 6.0/6.1 software installation may involve one, two or more servers. The installation configuration you choose depends on the hardware resources and performance demands of your contact center.

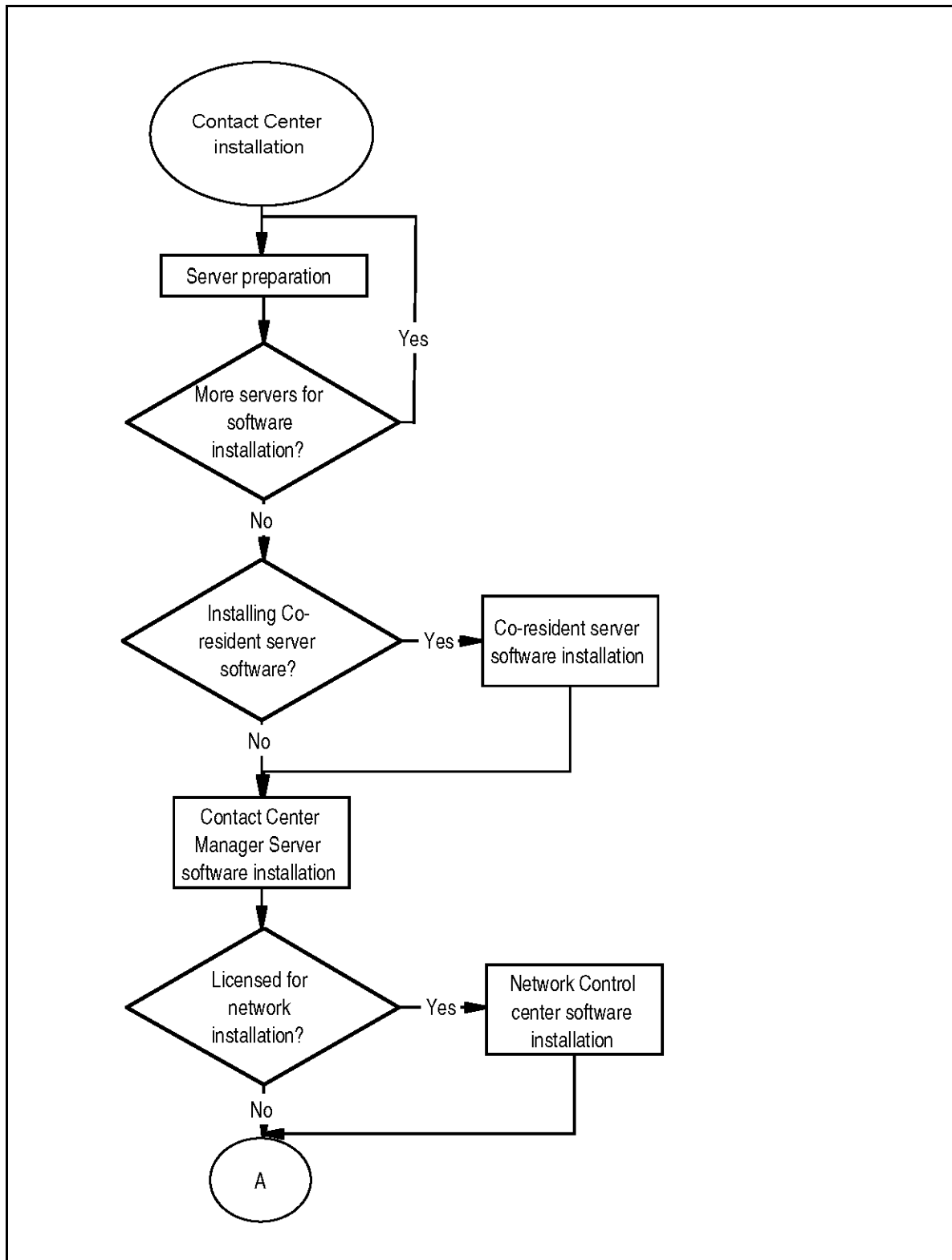
Prerequisites for Contact Center installation workflow

- Complete the *Avaya Aura™ Contact Center Installation Checklist* (NN44400-310).
- Ensure all your server hardware meets the requirements described in *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Know the installation configuration you plan to use in your contact center. For more information see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).

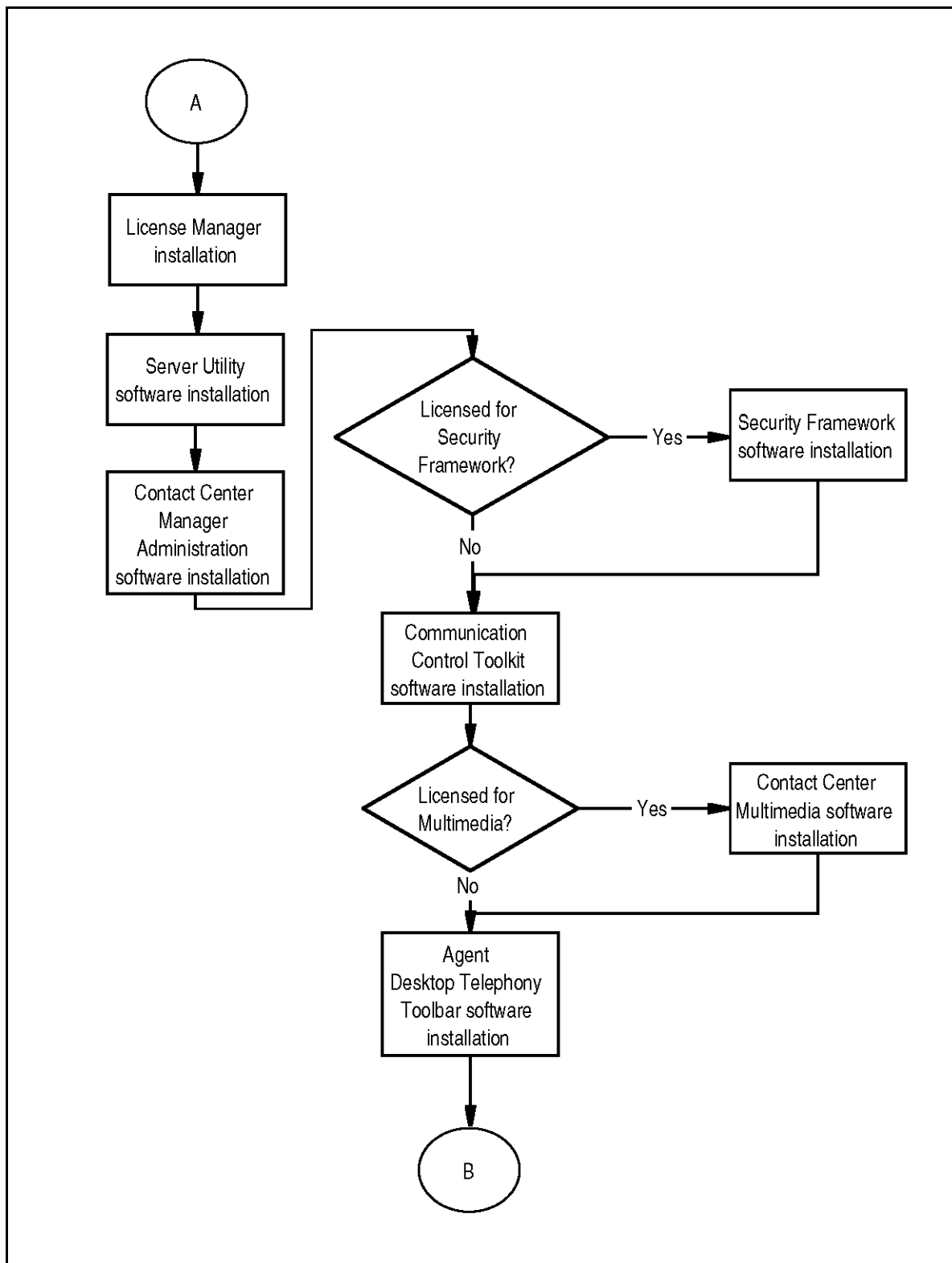
Contact Center installation tasks

This work flow shows you the sequence of tasks you perform to install one or more Contact Center components on a server. To link to any tasks, click [Contact Center software installation navigation \(page 19\)](#).

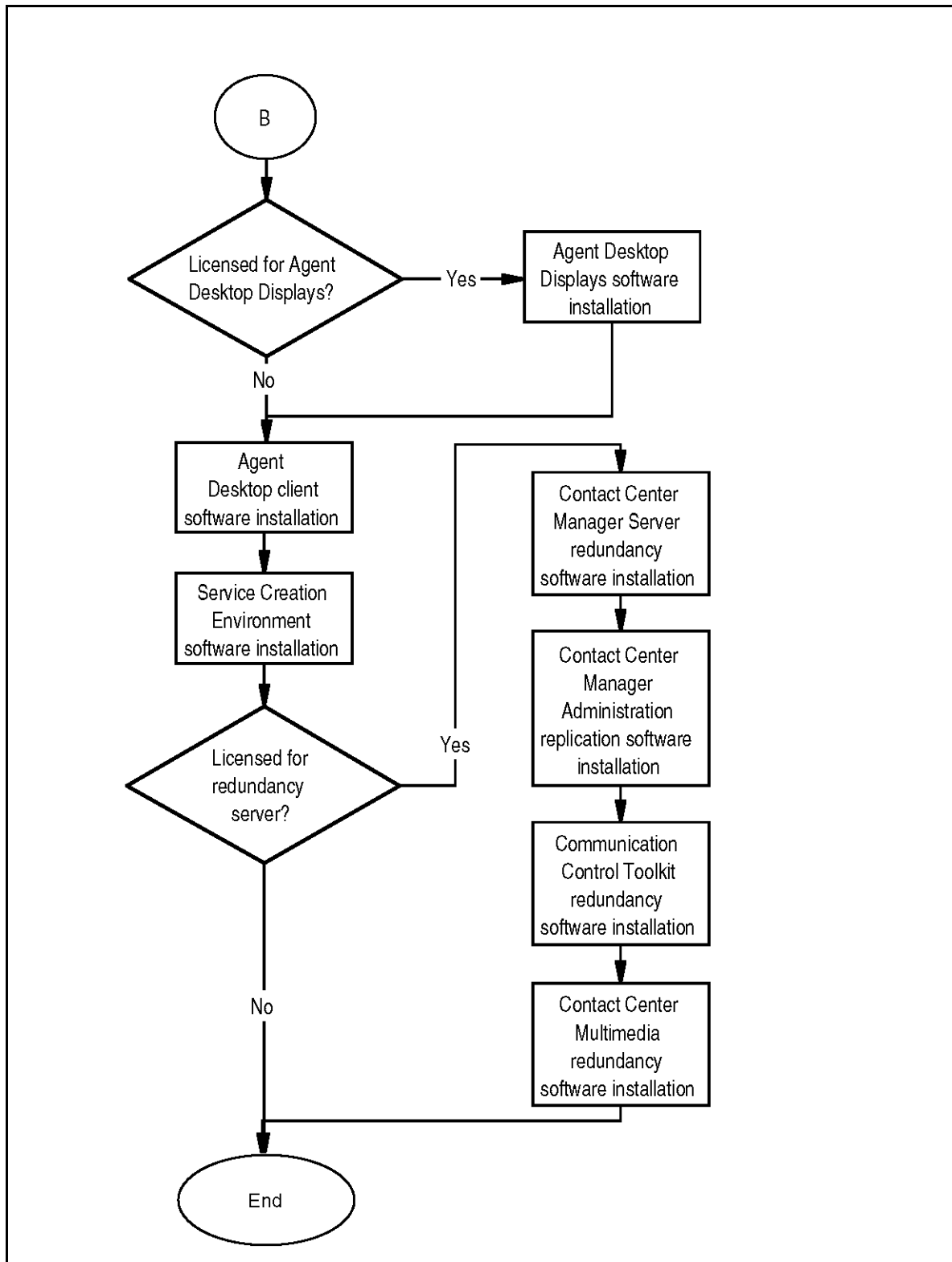
Contact Center software installation tasks



Contact Center software installation tasks (continued)



Contact Center software installation tasks (continued)



Contact Center software installation navigation

- [Server preparation \(page 21\)](#)
- [Contact Center Manager Server software installation \(page 35\)](#)
- [License Manager installation \(page 49\)](#)
- [Server Utility software installation \(page 53\)](#)
- [Contact Center Manager Administration primary server software installation \(page 57\)](#)
- [Security Framework software installation \(page 71\)](#)
- [Communication Control Toolkit software installation \(contact center\) \(page 75\)](#)
- [Contact Center Multimedia software installation \(page 107\)](#)
- [Agent Desktop Telephony Toolbar software installation \(page 79\)](#)
- [Network Control Center software installation \(page 83\)](#)
- [Communication Control Toolkit software installation \(knowledge worker\) \(page 89\)](#)
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- [Contact Center Manager Server standby software installation \(page 135\)](#)
- [Contact Center Manager Administration standby software installation \(page 155\)](#)
- [Communication Control Toolkit standby software installation \(page 163\)](#)
- [Contact Center Multimedia standby software installation \(page 167\)](#)
- [Server software uninstallation \(page 175\)](#)
- [CCTIVR software uninstallation \(page 179\)](#)

Job aid: Co-resident installations

You can install some server software applications co-resident with other software applications. The following table indicates the possible co-residency with other server software applications.

Co-resident Contact Center applications

Co-resident server software	Description
Server 1: CCMS, License Manager, Server Utility, CCMA, CCT Server 2: CCMM (if licensed)	Install multiple software applications on the same server for small-sized contact centers when you have only two servers dedicated to software installation.
Server 1: CCMS, License Manager, Server Utility Server 2: CCMA Server 3: CCMM (if licensed) Server 4: CCT	Install multiple software applications on the same server with CCMA separate if your contact center uses frequent reporting functions. Install related software applications on the same server for medium-sized contact centers when you have only two or three servers dedicated to a software installation.
CCT, License Manager	Knowledge worker configuration for which CCT connects directly to the PABX.
NCC, License Manager	Install the License Manager on the primary Network Control Center in your contact center that spans multiple sites. This configuration is supported only in a corporate license environment.
CCMS, License Manager, Server Utility, CCMA, CCT, CCMM	Install multiple software applications on the same server for small-sized contact centers when you have only one server.

You can add the following third-party applications to your Contact Center servers:

- Media Application Server (SIP environment only)

Server preparation

This chapter provides the common procedures to prepare the servers that you need to install the Avaya Aura™ Contact Center server software. You must perform the procedures in this chapter on each server you plan to use.

Prerequisites to server preparation

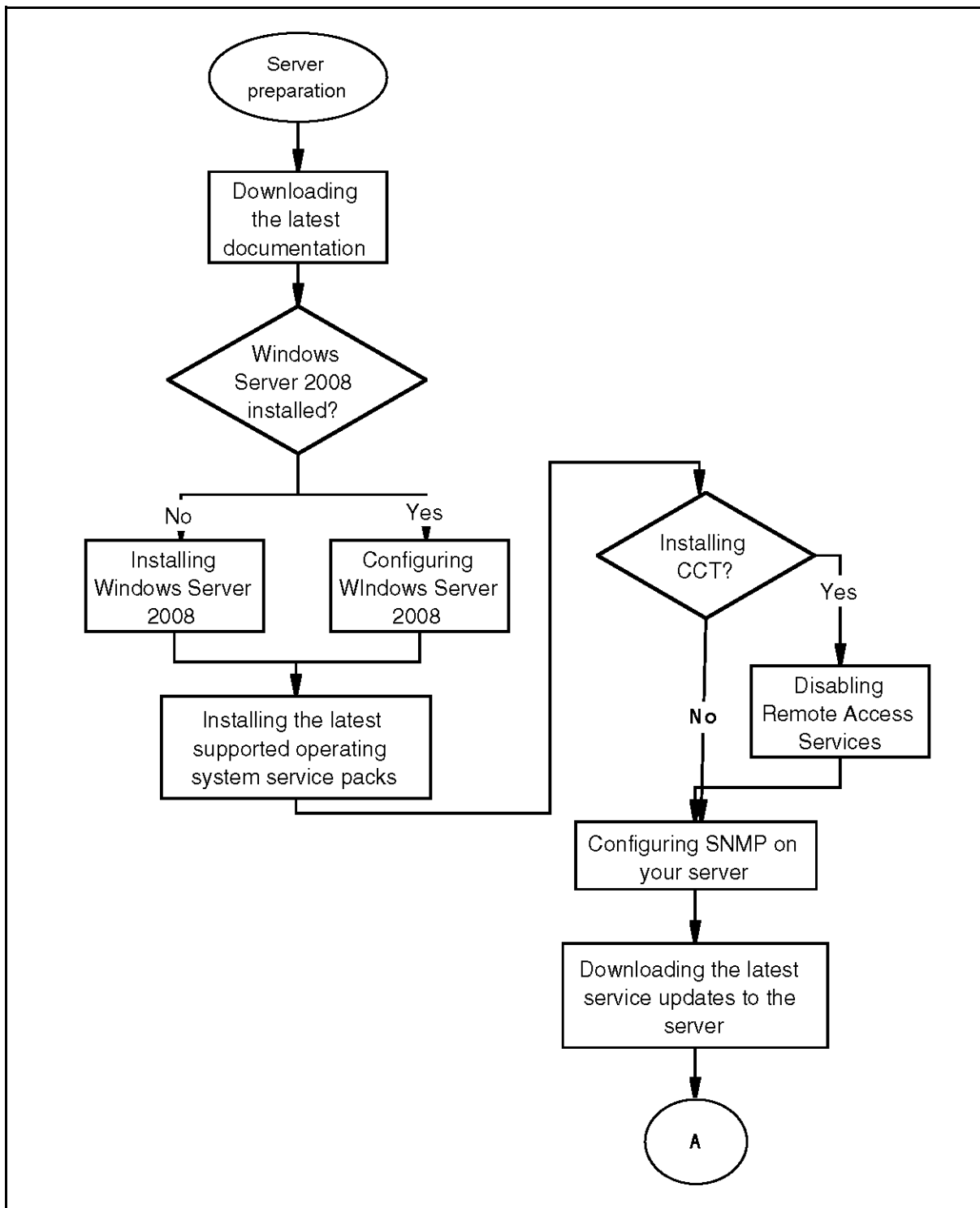
- Complete the *Avaya Aura™ Contact Center Installation Checklist* (NN44400-310).
- Ensure all server hardware meets the requirements described in *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Install the Microsoft .NET Framework 3.5 and Microsoft .NET Framework 3.5 SP1.

Server preparation tasks

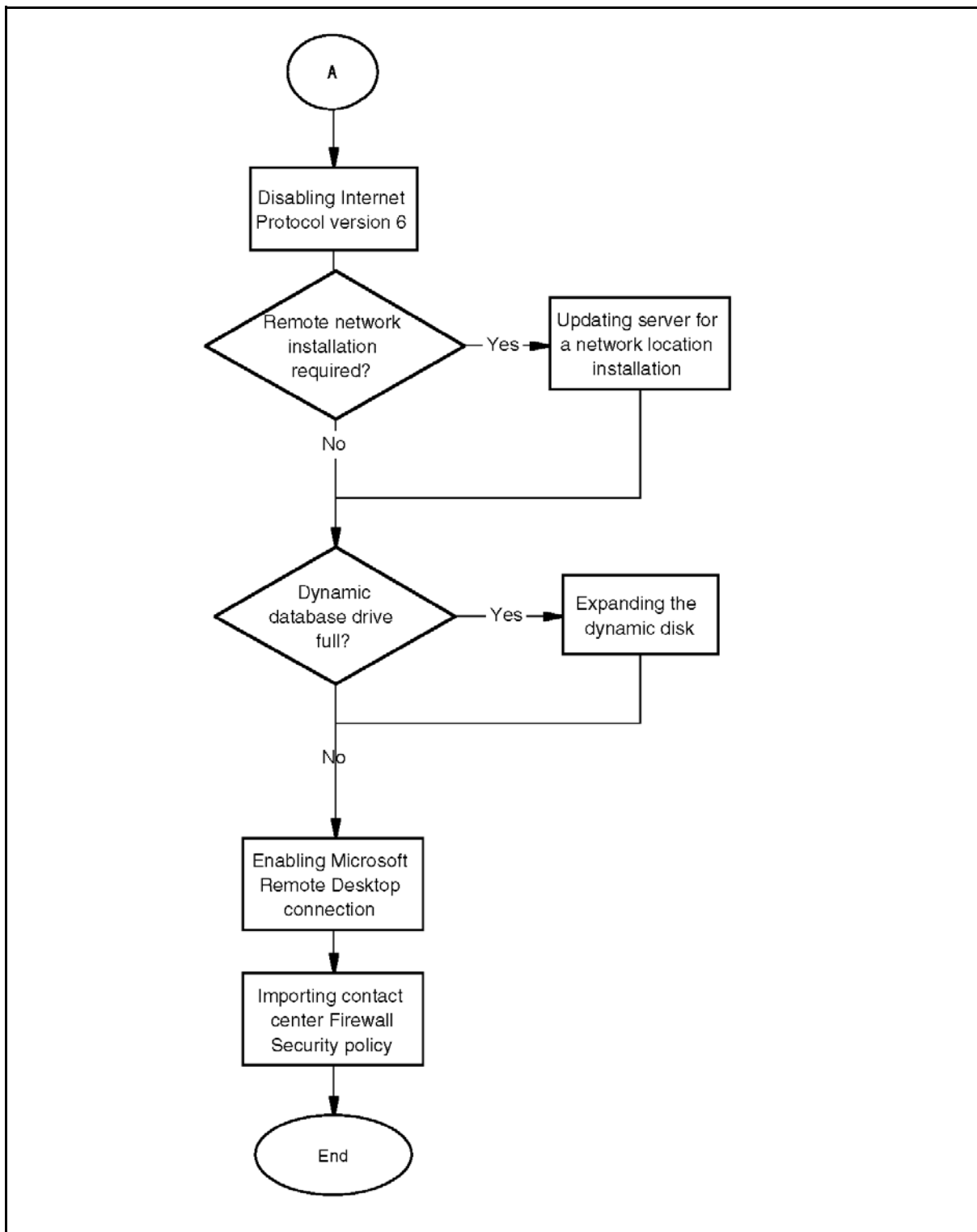
This task flow shows you the sequence of procedures you perform to prepare all servers for Contact Center software installation. To link to any procedure, click [Server preparation navigation \(page 24\)](#).

Server preparation

Server preparation task procedures



Server preparation task procedures (continued)



Server preparation navigation

- [Downloading the latest documentation \(page 24\)](#)
- [Installing Windows Server 2008 Release 2 \(page 25\)](#)
- [Configuring Windows Server 2008 \(page 28\)](#)
- [Installing the latest operating system service packs \(page 28\)](#)
- [Disabling the Remote Access services \(page 29\)](#)
- [Configuring SNMP on your server \(page 30\)](#)
- [Downloading the most recent patches to the server \(page 30\)](#)
- [Disabling Internet Protocol version 6 \(page 31\)](#)
- [Updating server for a network location installation \(page 31\)](#)
- [Expanding the dynamic disk \(page 32\)](#)
- [Enabling Microsoft Remote Desktop connection \(page 33\)](#)
- [Importing contact center firewall security policy \(page 33\)](#)

Downloading the latest documentation

Download the latest documentation to ensure you have the latest updates. Updates in the documentation accurately reflect the latest changes in the software.

Prerequisites

- Download the latest version of Acrobat Reader.
- Access the Avaya Web site at www.avaya.com/support.

Procedure steps

Step	Action
1	Log on to the Avaya Web site.
2	Compare the versions of the documentation on the site with the versions you have.
3	If the version number on www.avaya.com is higher than your version, download the latest version of the document.
4	Review the Avaya Web site for release notes and readme files.

--End--

Installing Windows Server 2008 Release 2

Install the Windows operating system, which is required for the Contact Center server software. During the installation, configure the Windows settings as required. You must perform this procedure on each server before you install Contact Center server software on the server.

Prerequisites

- Ensure that you have a newly formatted server that meets the specifications in *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) on which to install Microsoft Windows Server 2008 Release 2.

Avaya recommends that you do not upgrade your operating system from a previous release. Remove the drive partitions and reformat the hard drives on the server.

- Configure all servers for RAID as described in the *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that you have a DVD for Windows Server 2008 Release 2.
- Install the network interface card in the server.
- Know the IP addresses for the contact center subnet and ELAN subnet.

Procedure steps

Step	Action
1	Insert the Windows Server 2008 64-bit Release 2 Standard Edition or Windows Server 2008 64-bit Release 2 Enterprise Edition DVD into the DVD drive.
2	Install Windows Server 2008 Release 2 according to the instructions supplied by the DVD.
3	On the first install page, select your language for installation.
4	Click Next .
5	On the Installation window, select a Language to install from the list.
6	Select a Time and currency format from the list.
7	Select Keyboard or input method from the list.
8	Click Next .
9	Click Install Now .
10	Select an operating system from the list.
11	Click Next .
12	On the first Install Windows screen, read the terms of the license agreement and select I accept the license terms .
13	Click Next .
14	Select Custom .
15	Select the disk partition on which you want to install Windows Server 2008.

Attention: The installation requires 34189 MB of free space. You can use the partition management options to configure the partitions on your server.

Attention: If you receive a message that tells you that the partition of the server already contains a previous version of Windows, the files are moved to a folder named windows.old. You cannot use the previous version of Windows.

- 16** Click **Next**.

The install proceeds and automatically restarts the server several times.

- 17** After completing the installation, log on to the server as Administrator. Enter and confirm the Administrator password.

- 18** In the **Initial Configuration Tasks** window, select **Activate Windows** and follow the instructions or the Microsoft documentation to activate your server.

- 19** Select **Set time zone** and complete the information as required for your system.

If you use an Avaya Communication Server 1000 PABX, ensure that you clear **Automatically adjust clock for daylight saving changes** unless you plan to install Contact Center Multimedia on this server.

Contact Center Multimedia does not support manual Daylight Savings Time (DST) changing. If you use this server for Contact Center Multimedia, select **Automatically adjust clock for daylight saving changes**.

For SIP-enabled contact centers, this setting must match on Contact Center Manager Server and Media Application Server (MAS).

- 20** Select **Configure Networking** and complete the information for your Network Interface Card (NIC) with the server IP address.

If you have two network cards, configure both cards.

- 21** Select **Provide computer name and domain** and complete the information for your server name and workgroup or domain settings.

- 22** Configure C to be the only primary partition on your hard drive.

- 23** Configure the other drives and partitions for this server as described in *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).

- 24** Install other required drivers for your hardware configuration.

--End--

Procedure job aid

Setting	Value required
Date and Time Settings dialog box	Enter the settings in this dialog box as required for your site. Ensure the correct time zone is set for the server. For the check box Automatically adjust clock for daylight saving changes: - If you use an Avaya Communication Server 1000 PABX, and the CCT server is to be co-resident with the CCMS server, ensure that Automatically adjust clock for daylight saving changes is unchecked. - If the CCT server is to be a standalone server, check the Automatically adjust clock for daylight saving changes whenever it is applicable. The contact center applications do not support time changes other than the Daylight Savings Change. Changing time causes issues with states of contacts.
Computer name	Do not use spaces or underscores or exceed 15 characters. The name must start with an alphabetic character. The computer name must match (including case sensitivity) the DNS name.
Disk drives	Format the partitions as required for the server. For more information, see <i>Avaya Aura™ Contact Center Planning and Engineering</i> (NN44400-210).
Domain/work group name	Configure as required for your site. You must check to ensure the DNS Domain name (including case) matches the server name if the server is added to a domain or workgroup after configuration.
Licensing modes	Select Per server licensing mode. Accept the default five concurrent connections.
Modem dialing	Configure as required for your site. Do not install a modem on a Communication Control Toolkit server.
Network components	Configure IP Address, WINS, DNS for one or two network cards as per configuration. Contact Center does not support IPv6.
Network connections	If the server has more than one NIC/adaptor, ensure contact center subnet appears first in the network adaptor binding order.
Partitions	Configure C to be the only primary drive. Configure the other drives on your server to meet the requirements according to <i>Avaya Aura™ Contact Center Planning and Engineering</i> (NN44400-210) for the server.
Regional settings window	Configure as required for your site.
Windows Server 2008 settings (1 of 2)	

Setting	Value required
Serial port configuration	For COM1, set the base I/O Port Address to 3F8 and the IRQ to 4.
SNMP	Configure for all servers.
Windows Server 2008 settings (2 of 2)	

Configuring Windows Server 2008

Before you can install Contact Center software on your server, you must configure Windows Server 2008 to meet the requirements of the software.

Prerequisites

- Install Microsoft Windows Server 2008 64-bit Release 2 on your server.

Procedure steps

Step	Action
1	Log on to the Windows Server 2008 server.
2	Select the Don't display this screen on startup check box.
3	Update the emergency repair disk to record the latest configuration data for the server.
4	Choose Start, All Programs, Accessories, System Tools, Windows Server Backup .
5	Follow the on-screen instruction to select what you want to back up.

--End--

Installing the latest operating system service packs

Avaya recommends that you install the most recent operating system service packs. You must download the supported operating system service pack from the Avaya hotfixes list to ensure your Contact Center server software functions correctly with the supported operating system patches.

Prerequisites

- Access the Avaya hotfixes list on the Web site www.avaya.com.
- Install and configure Microsoft Windows Server 2008 64-bit Release 2 on your server.
- Review the recommendations on operating system service updates in *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).

Procedure steps

- | Step | Action |
|------|--|
| 1 | Review the Contact Center Portfolio Service Packs Compatibility and Security Hotfixes Applicability List to determine the most recent supported patch. |
| 2 | Download the appropriate Microsoft Windows Server 2008 patch for the server software installed on this server. |
| 3 | Install the most recent Windows Server 2008 service pack that is validated with the server software installed on this server by following the Microsoft Installation instructions. |

--End--

Disabling the Remote Access services

Disable the Remote Access services to install Communication Control Toolkit. Microsoft Remote Desktop continues to run after you disable Remote Access services. After you disable the services, restart the server.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Choose Start, Administrative Tools, Services . |
| 2 | In the Services window, right-click the Remote Access Connection Manager icon. |
| 3 | Click Properties . |
| 4 | In the General tab, from the Startup type list, select Disabled . |
| 5 | Click OK . |
| 6 | In the Services window, right-click the Remote Access Auto Connection Manager icon. |
| 7 | Click Properties . |
| 8 | In the General tab, from the Startup type list, select Disabled . |
| 9 | Click OK . |
| 10 | In the Service window, click File, Exit . |
| 11 | Restart the server. |

--End--

Configuring SNMP on your server

Configure Simple Network Management Protocol (SNMP) on your server to ensure you have all of the required components of the Internet protocol for monitoring devices in your network. SNMP helps you manage data that describes the system configuration and errors that may occur between them.

Prerequisites

- Install and configure Microsoft Windows Server 2008 64-bit Release 2 on your server.

Procedure steps

Step	Action
1	Log on to the server using the administrator account.
2	Choose Start, Control Panel, Programs .
3	In the Programs and Features section, click Turn Windows features on or off .
4	In the Server Manager window, select Features and click Add Features .
5	Select SNMP Services .
6	Click Next .
7	Click Install .
8	If prompted, insert the Windows DVD.

--End--

Downloading the most recent patches to the server

To ensure that you have the most current software, download the most recent Contact Center patches from www.avaya.com/support to the server you plan to install.

Prerequisites

- Install and configure Windows Server 2008 64-bit Release 2 on your server according to the settings in this chapter.
- Download and install the most recent and valid updates for Microsoft Windows Server 2008 64-bit Release 2.
- Know the location at which you plan to install each Contact Center server software package.
- Ensure that you use one administrator account on your server to un-install and install software updates.

Procedure steps

Step	Action
------	--------

- 1 Log on to the server using the administrator account.
- 2 Create a folder **Avaya_Support\ProductUpdates\Log** on the drive on which you want to save the software updates.
- 3 In Windows Explorer, browse to the patches folder on the Contact Center installation DVD.
- 4 Download the most recent service pack file and save it on the Contact Center server in the Avaya_Support\ProductUpdates\Log folder.
- 5 Register for the ESPL Web site.
- 6 If a new service pack file exists on ESPL, download and save it on the Contact Center server in the Avaya_Support\ProductUpdates\Log folder.
- 7 Download all patches from the Contact Center DVD and the ESPL Web site that are associated with the most recent service pack to the Avaya_Support\ProductUpdates\Log folder on the server.
- 8 Download all design patches from the Contact Center DVD and the ESPL Web site that are associated with the most recent service pack to the Avaya_Support\ProductUpdates\Log folder on the server.

--End--

Disabling Internet Protocol version 6

Disable internet protocol version 6 (IPv6) to ensure correct operation of the contact center software.

Procedure steps

- | Step | Action |
|------|--|
| 1 | Search Microsoft support site for instructions to locate the instructions to disable IPv6 in the Windows Server 2008 registry. |
| 2 | Follow the Microsoft instructions to disable all IPv6 components. |
| 3 | Reboot the server, if required. |

--End--

Updating server for a network location installation

To prepare the server for remote network installations, you must configure server updates.

Procedure steps

- | Step | Action |
|------|--|
| 1 | Choose Start, Control Panel, Network and Internet, Internet Options . |
| 2 | In the Security tab, click Trusted sites . |
| 3 | In the Trusted sites section, click Sites . |
| 4 | In the Add this Web site to the zone field, type the <IP address>. |
| 5 | Click Add . |
| 6 | Click OK . |
| 7 | Close the Internet Options box. |
| 8 | Navigate to your network location. |
| 9 | Double-click Network.bat
.NetFramework 3.5 installs and.NetSecurity settings modify. |
| 10 | Insert the Contact Center DVD into the DVD drive of your server. |
| 11 | If the installation does not automatically start, double-click Setup.exe . |
| 12 | Navigate to your network location. |
| 13 | Double-click NetworkSetupReset.bat . |

--End--

Expanding the dynamic disk

If you change your configuration because you require extra space for your database, you can expand your database partition.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert a new hard disk into the server. |
| 2 | Open the Windows Computer Management Console. |
| 3 | Check the configuration of the existing database disk. |
| 4 | If the existing database disk uses the dynamic configuration, skip to step 8. |
| 5 | Click on the disk you want to convert from basic to dynamic. |
| 6 | On the toolbar, click Actions, All Tasks, Convert to Dynamic Disk . |
| 7 | On the dialog box, click OK . |
| 8 | Click the existing database volume. |
| 9 | On the toolbar, click Actions, All Tasks, Extend Volume . |

- 10 On the **Extend Volume Wizard** window, click **Next**.
 - 11 Select the amount of space to allocate to the new volume.
 - 12 Click **Next**.
 - 13 Review the choices, and click **Finish**.
- The Caché database expands automatically into the dynamic disk.

--End--

Enabling Microsoft Remote Desktop connection

Enable Microsoft Remote Desktop connection if you do not use LogMeIn Rescue as your remote access tool. Microsoft Remote Desktop or LogMeIn Rescue provides remote access for support on the server.

Prerequisites

- Install Microsoft Windows Server 2008 64-bit Release 2 on your server.
- Log on to the server with administrator privileges.

Procedure steps

Step	Action
1	Choose Start, Control Panel, System and Security .
2	In the System section, select Allow remote access .
3	Click the Remote tab.
4	Select Allow connections from computers running any version of Remote Desktop .
5	Click OK .

--End--

Importing contact center firewall security policy

Import the Avaya Aura™ Contact Center Firewall Security policy to ensure all contact center servers in the solution can communicate.

Avaya recommends that you export and backup your existing firewall security policy before importing the Avaya Aura™ Contact Center Firewall Security policy. You can use this backup policy to rollback the Avaya Aura™ Contact Center Firewall Security policy, should you ever need to.

Prerequisites

- Install Microsoft Windows Server 2008 64-bit Release 2 on your server.
- Log on to the server with administrator privileges.
- Download the most recent Avaya Aura™ Contact Center Firewall Security policy from www.avaya.com/support.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Choose Start, Administrative Tools, Windows Firewall with Advanced Security . |
| 2 | Choose Action, Export Policy . |
| 3 | In the File name box, type the name for the backup policy. |
| 4 | Click Save .

<i>Windows exports the existing policy. You can use this backup policy to rollback the Avaya Aura™ Contact Center Firewall Security policy, should you ever need to.</i> |
| 5 | On the Policy successfully exported message box, click OK . |
| 6 | Choose Action, Import Policy . |
| 7 | On the policy overwrite message box, click OK . |
| 8 | Navigate to the folder containing the Avaya Aura™ Contact Center Firewall Security policy. |
| 9 | Click Open .

<i>Windows imports the Avaya Aura™ Contact Center Firewall Security policy.</i> |
| 10 | On the Policy successfully imported message box, click OK . |

--End--

Contact Center Manager Server software installation

This chapter describes how to install the Avaya Aura™ Contact Center server software that provides the intelligent routing capability for telephony calls and multimedia contacts. Use the Contact Center Manager Server (CCMS) software to route calls and contacts to the most qualified agent, one with the appropriate skills to handle the type of contact.

You can install Contact Center Manager Server software alone on a server, or co-resident with all other Contact Center software applications.

Prerequisites to CCMS software installation

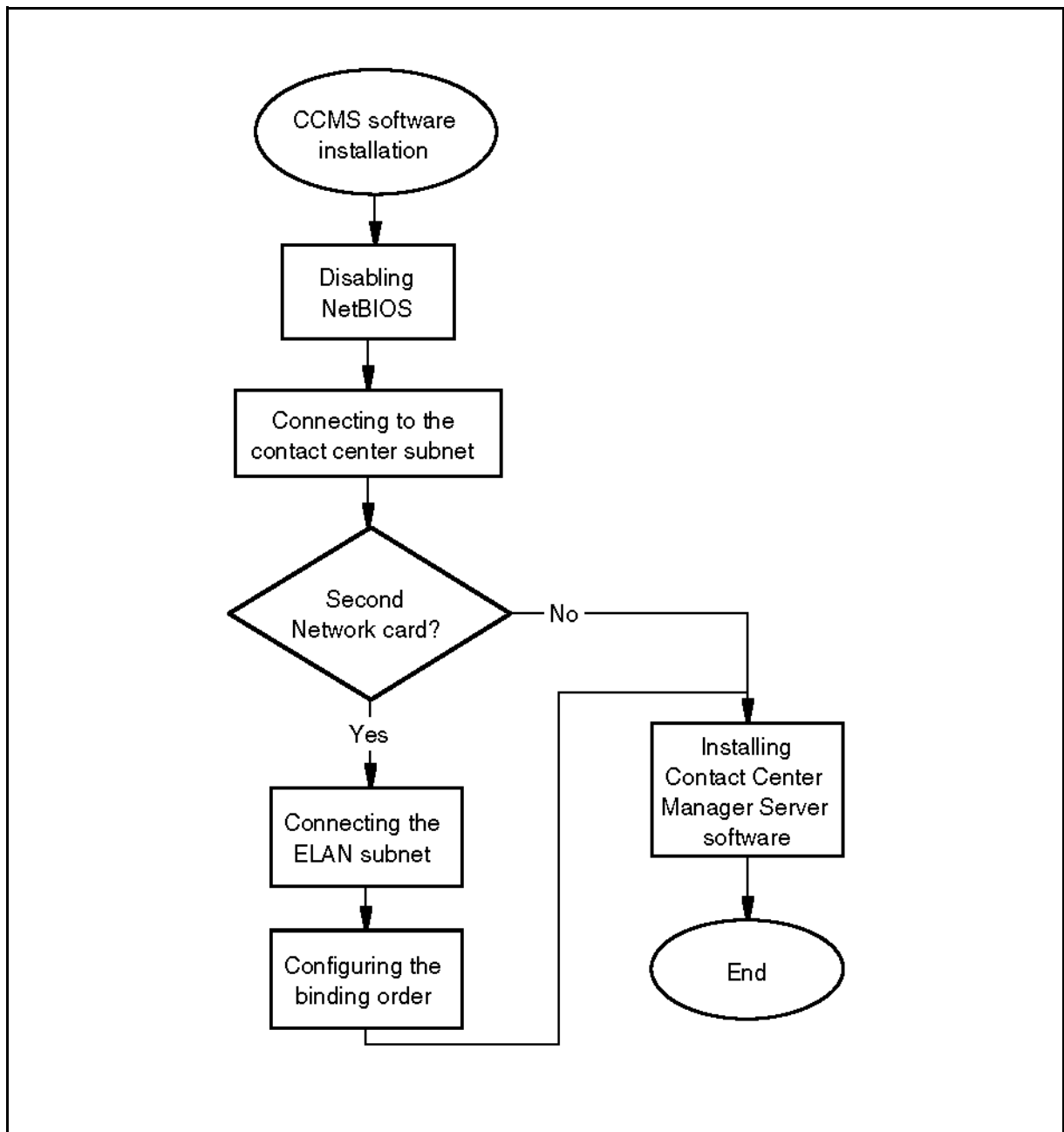
- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Copy the most recent patches for Contact Center Manager Server software. See [Downloading the most recent patches to the server \(page 30\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that your new Contact Center license file is available.

Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install CCMS.

CCMS software installation procedures

This task flow shows you the sequence of procedures you perform to install Contact Center Manager Server software on your server. To link to any task, click [CCMS software installation navigation \(page 36\)](#).

CCMS software installation procedures



CCMS software installation navigation

- [Disabling NetBIOS \(page 37\)](#)
- [Connecting to the contact center subnet \(page 38\)](#)
- [Connecting the Embedded LAN subnet \(page 38\)](#)
- [Configuring the binding order \(page 39\)](#)

- [Installing the Contact Center Manager Server software \(page 39\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Manager Server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Disabling NetBIOS

To avoid a NetBIOS conflict, disable NetBIOS if you use two network interface cards in your Contact Center Manager Server on the ELAN network interface card (NIC).

Prerequisites

- Install two network interface cards in your Contact Center Manager Server.

Procedure steps

Step	Action
1	Choose Start, Control Panel, Network and Internet .
2	Click Network and Sharing Center .
3	Click Change adapter settings .
4	Select and right-click the appropriate Network connection.

Attention: Avaya recommends that you disable NetBIOS on the non-contact center subnet card.

5	Click Properties .
6	Select Internet Protocol Version 4 (TCP/IPv4) .
7	Click Properties .
8	Click Advanced .
9	Click the WINS tab.
10	Select the Disable NetBIOS over TCP/IP check box.
11	Click OK .

--End--

Connecting to the contact center subnet

Connect Contact Center Manager Server to the contact center subnet. The contact center subnet is the network on which the server software applications work together to route contacts and generate reports.

Procedure steps

Step	Action
1	Locate the slot assigned to the contact center subnet network interface card for the server. Make a note of the slot.
2	Connect the cable from the contact center subnet to the contact center subnet network interface card in the server in accordance with customer site networking guidelines.
3	Use the ping command to test the contact center subnet.

--End--

Connecting the Embedded LAN subnet

Connect the Embedded LAN (ELAN) subnet only if you use two network interface cards. You need not configure the ELAN for Contact Center Manager Server.

Prerequisites

- Install two network cards on the Contact Center Manager Server.
- Disable the NetBIOS on one network interface card.
- Connect the contact center subnet interface card.

Procedure steps

Step	Action
1	Locate the slot assigned to the ELAN network interface card for the server.
2	Write the MAC address of the card on a small label. Attach the label to the back of the card or the chassis slot position.
3	Connect the ELAN subnet from the Avaya equipment to the Ethernet hub.
4	Connect the LAN cable from the ELAN network interface card in the server to the hub.
5	Plug in the power cord for the hub.
6	If you have an ELAN subnet network connection, use the ping command to test it.

--End--

Configuring the binding order

Configure the binding order of the network cards if you have more than one network interface card. The contact center subnet card must be bound first, then the ELAN card, and then the virtual adapters for remote access.

Prerequisites

- Install two network interface cards on the Contact Center Manager Server.
- Disable the NetBIOS on one network interface card. For more information, see [Disabling NetBIOS \(page 37\)](#).
- Connect the contact center subnet interface card.
- Connect the ELAN subnet.

Procedure steps

Step	Action
1	From the Start menu, choose Control Panel, Network and Internet, Network and Sharing Center .
2	Click Change adaptor settings .
3	In the Network Connections window, press the ALT key. <i>A hidden menu appears.</i>
4	Choose Advanced, Advanced Settings .
5	In the Connections box, ensure that the contact center subnet connection is listed first. If it is not listed first, adjust the order.

--End--

Installing the Contact Center Manager Server software

Install the Contact Center Manager Server (CCMS) software to enable your contact center to route contacts to qualified available agents.

Prerequisites

- If you install Contact Center Manager Server software with an AML Avaya Communication Server 1000 PABX, ensure the PABX is configured. See *Avaya Aura™ Contact Center Configuration – Avaya CS1000 Integration* (NN44400-512).
- If you install Contact Center Manager Server software with a SIP Avaya Communication Server 1000 PABX, ensure the PABX is configured. See *Avaya Aura™ Contact Center SIP Commissioning* (NN44400-511).
- If you install Contact Center Manager Server software with an Avaya Aura™ Unified Communications platform, ensure the platform is configured. See *Avaya Aura™*

Contact Center Configuration – Avaya Aura™ Unified Communications Platform Integration (NN44400-521).

- Download the most recent Contact Center Manager Server service and Common Components patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).
- If you install Contact Center Manager Server as part of a co-resident installation, ensure all prerequisites are met for all Contact Center applications that you install on this server.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |
| 3 | Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 . |
| 4 | On the Welcome window, click Next . |
| 5 | On the License Agreement window, read the terms of the agreement. |
| 6 | Click I ACCEPT the Terms of the End-User License Agreement . |
| 7 | Click Next . |
| 8 | On the Application Selection window, from the Select Switch Type list, select the PABX type for your system. |
| 9 | Under Contact Center Manager Server (CCMS), select Nodal Server .

In addition to installing Contact Center Manager Server, this selection installs the Open Queue Open Interface, the Open Networking Open Interface and Multiplicity which you can license and configure later. |
| 10 | Under Install Type , select the installation type for your system. |
| 11 | Click Next . |
| 12 | On the Product Data Upgrade window, click Next . |
| 13 | On the Installation Destination window, on the Application Destination Drive tab, accept the default location for the Application Destination Drive . |
| 14 | Click the Database Destination Drive tab. |
| 15 | Under Install Manager Server Database to , select the drive for the Contact Center Manager Server database. |
| 16 | Click the Product Updates Location tab. |
| 17 | Under Select the parent directory where patches are stored , select the drive on which you stored the patches. Click Browse to locate the folder. |
| 18 | Click Next . |

The System Readiness Check utility runs on the server.

- 19 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 20 Click **Next**.
- 21 On the **Installation Data** window, type the installation details for each tab.

If Communication Control Toolkit or Contact Center Multimedia is part of the solution, you must select the **Open Queue** check box on the **Licensing** tab and type the details on the corresponding **CCT Server** tab.
- 22 Click **Next**.
- 23 On the **Summary** window, review and verify the information.
- 24 Click **Install**.
- 25 After the installation is complete, click **Finish**.
- 26 If you are prompted, restart the server.
- 27 Disable Java Runtime Environment (JRE) updates. See [Disabling Java Runtime Environment updates \(page 173\)](#).

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

--End--

Procedure job aid

The following table provides a list of common Contact Center Manager Server variable definitions.

Variable	Value
Application destination drive	The location to install the Contact Center Manager Server software. You must install the CCMS software to D:\Avaya\Contact Center.
Database destination drive	The location to install the Contact Center Manager Server Caché database. Install the CCMS database on the database destination drive in the Avaya\Contact Center\Database\CCMS folder.
Product updates location	The parent directory of the software patches.
Customer Name	The designated person in charge of the Contact Center Manager Server software.
(1 of 2)	

Variable	Value
Company Name	The name of the company using the Contact Center Manager Server software.
Site Name	The site name for the Contact Center Manager Server. The site name must not contain spaces or nonalphabetical characters except hyphen (-) and underscore (_). The first character must be a letter. The site name must be unique and can consist of 6 to 15 characters.
RSM IP Address	The RSM IP Address of the server to associate with sending real-time data. The IP address must be from 224.0.1.0 to 239.255.255.255. The default is 230.0.0.1.
Contact Center Server Subnet IP Address	The IP Address of the subnet that connects the Contact Center servers (Contact Center Manager Server, Network Control Center, Contact Center Manager Administration, Contact Center Multimedia, and (optionally) Avaya CallPilot™) are connected.
ELAN Subnet IP Address	The IP Address of the embedded local area network, a dedicated Ethernet LAN that connects the Contact Center Manager Server and the PABX. You must select the check box for the ELAN subnet IP Address if you use an ELAN subnet.
Select Switch Type	Type of PABX you use in your contact center to handle telephone contacts. You can choose from the following: • AML Avaya Communication Server 1000 • SIP Avaya Communication Server 1000 • SIP Avaya Aura™ Unified Communications platform • No Switch Configured. Select this option when installing Avaya Aura™ Contact Center for multimedia only—Non Voice Multimedia.
Install Type	The type of installation, you can choose from the following: • Multimedia and Voice. This type of installation supports voice and multimedia contact types. • Non Voice Multimedia. This type of installation supports only multimedia contact types.
(2 of 2)	

The following table provides a list of AML Avaya Communication Server 1000-specific variables.

Variable	Value
Switch Name	The name of the AML Avaya Communication Server 1000. Valid characters for PABX names are A–Z, a–z, 0–9, underscore (_), and period (.). Names must begin with an alphabetical character and cannot contain spaces. The last character must not be an underscore or a period. Names must not exceed 80 characters in length.
Switch IP Address	The IP address of the PABX.
Alternative Switch IP Address	The IP address of the PABX, if there is more than one IP address registered for the PABX.
Switch Customer Number	The customer number for the PABX.
Voice Connection Type	The method used to connect to the PABX. If you use Avaya CallPilot™, beside Voice Connection Type, select TCP and specify the ELAN subnet IP address of the Avaya CallPilot™ server and then configure the CallPilot Server Port to 10008.
CallPilot IP Address	The IP address of the primary Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.
CallPilot Port	The port number of the primary Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.
CallPilot Alternative IP Address	The IP address of the alternate Avaya CallPilot™ voice connection for the Avaya Communication Server 1000 PABX.
CallPilot Alternative Port	The port number of the alternate Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.

The following table provides a list of configuration variables specific to the SIP Avaya Communication Server 1000.

Variable	Value
Local SIP Subscriber	Information about the environment of the SIP-enabled contact center and how to identify the server within the network.
- Contact Center Name - Domain - Password - Network Transport	The registration user name on the registration proxy. Use a suitable user name following the standards in your system. Associated domain name for the SIP- enabled contact center. Password for the registration user name. The SIP Communication protocol accepted by the system for incoming calls. TCP/UDP Port default is 5060 TLS Port default is 5061
SIP Server Type	Type of SIP proxy for the contact center integration
MS_Locale	Locale (including language and dialects) of the system environment.
SIP Proxy Server	Information about the server that provides support for SIP Computer Telephony Integration so that Agent Desktop can acquire and control agent telephones for TR87. Avaya recommends that you use the conventions within your environment (for example, use the conventions associated with your Network Routing Service on Avaya Communication Server 1000).
- IP Address - Port - Transport	The IP address of the SIP Proxy Server. The server listening port. The default port is 5060. The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for Avaya Communication Server 1000 and TLS for the Avaya Aura™ Unified Communications platform.
SIP	Information about the server that supports the deployment of Instant Message over SIP. IM is available only on a SIP Avaya Communication Server 1000 platform.
IM Proxy Server	The IP address of the SIP IM Proxy Server.
- IP Address - Port - Transport	The server listening port. The default port is 5060. The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for Avaya Communication Server 1000 and TLS for the Avaya Aura™ Unified Communications platform.
(1 of 2)	

Variable	Value
Presence server	The server that monitors and advises clients of the activity status. IM and presence features are supported only for OCS-supported platforms such as Avaya Communication Server 1000. These features are not supported for the Avaya Aura™ Unified Communications platform.
SIP Registration	Registration of Route Points as endpoints on your Proxy Server. SIP Registration is not required for this release.
SIP CTI Proxy Server	Information about the server that provides support for outbound calls, such as routing a call to an agent telephone. Avaya recommends that you use the conventions within your existing environment. For example, use the same settings as the current settings if you use a Network Routing Server within a SIP Avaya Communication Server 1000 environment.
• IP	The IP address of the SIP CTI Proxy Server.
• Port	The server listening port. The default port is 5060.
• Transport	The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for Avaya Communication Server 1000 and TLS for the Avaya Aura™ Unified Communications platform.
(2 of 2)	

The following table provides a list of variables specific to the Licensing tab.

Variable	Value
CCMS Package	The installation package indicates the licenses that you have purchased.
Optional Packages	You must choose the package you have purchased. Some packaged features include the following: • Universal Networking—Use Network Skill-Based Routing to route voice and multimedia contacts between networked sites in a mixed PABX environment. • Open Queue—Use Contact Center Multimedia to route multimedia contacts to agents by using the existing scripting and skillset routing features available for calls. You must install and license the Open Queue feature for Agent Desktop. • Multiplicity—Use Multiplicity to enable an agent to manage multiple contacts simultaneously by configuring a Multiplicity Presentation Class (MPC) in CCMA and assigning it to an agent. Instant Messaging is available only on SIP Avaya Communication Server 1000.

Variable	Value
Primary License Manager IP Address	The IP address of the License Manager server. If the Contact Center License Manager co-resides on the Contact Center Manager Server, type the IP address for the Contact Center Manager Server.
Primary License Port	The number of the communication port opened between the License Manager and the Contact Center Manager Server. The default port number is 3998 when you use only one License Manager.
Secondary License Manager IP Address	The IP address of the secondary License Manager server. The secondary License Manager server is used only in a corporate licensed environment.
Switch Serial Number	The serial number for the Contact Center License Manager. You must obtain the serial number from your distributor.

The following table provides a list of CCT-specific variables.

Variable	Value
CCT Host Name	The host name of the remote Communication Control Toolkit server (applicable to configurations for which the Communication Control Toolkit is not co-resident with Contact Center Manager Server).
CCT Port A1, A2, B1, B2	Accept the default CCT Port numbers unless you must change them for security purposes.
Use a Remote CCT Server	Select this check box if the Communication Control Toolkit server does not co-reside with the Contact Center Manager Server.

License Manager installation

This chapter describes how to install the centralized server software that controls the licensing for the components and features in Avaya Aura™ Contact Center.

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 work in a knowledge worker environment with no Contact Center Manager Server, install the License Manager on the Communication Control Toolkit server.

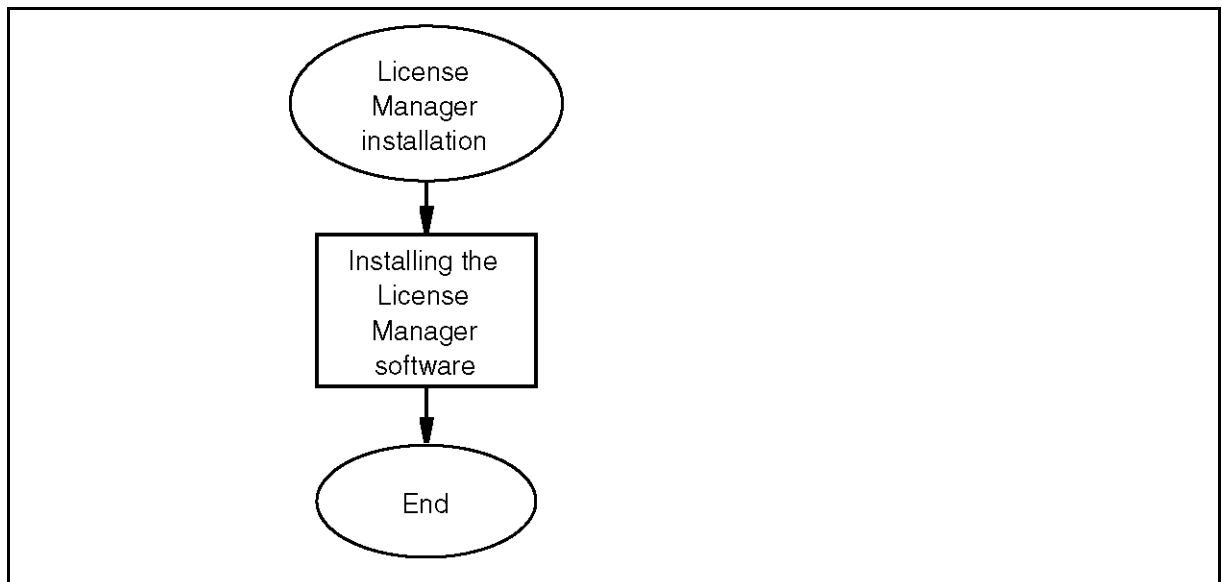
Prerequisites to License Manager installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Download all supported patches. See [Installing the latest operating system service packs \(page 28\)](#).
- Ensure that your new Contact Center license file is available.

License Manager installation tasks

This task flow shows you the sequence of procedures you perform to install the License Manager software on a server. To link to any tasks, click [License Manager installation navigation \(page 49\)](#).

License Manager installation procedures



License Manager installation navigation

- [Installing the License Manager software \(page 50\)](#)

Job aid: Installation time

The estimated time to install the Contact Center License Manager server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the License Manager software

Install the License Manager software to control the components and features of Contact Center.

Prerequisites

- Download the latest License Manager patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).
- If you install License Manager as part of a co-resident installation, ensure all prerequisites are met for all Contact Center applications that you install on this server.

Procedure steps

Step	Action
1	Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .
3	Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server. If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 .
4	On the Welcome window, click Next .
5	If you already installed a Contact Center server software application on this server, click Add a Component , and then skip to step 8 .
6	On the License Agreement window, read the terms of the agreement.
7	Click I ACCEPT the Terms of the End-User License Agreement .
8	Click Next .
9	On the Application Selection window, from the Select Switch Type list, select the PABX type for your system.
10	Under Install Type , select the installation type for your system.
11	In the Application Selection window, select License Manager .
12	Click Next .

- 13 On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
- 14 Click the **Product Updates Location** tab.
- 15 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 16 Click **Next**.
- 17 On the **Installation Data** window, type the installation details on the **License Manager** tab.
- 18 Click **Next**.
- 19 On the **Summary** window, review and verify the information.
- 20 Click **Install**.
- 21 After the installation is complete, click **Finish**.
- 22 If prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application Destination	The drive on which the Contact Center License Manager server software is installed.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
License File Location	The folder on the server which contains the license file.
Primary License Manager IP	The IP address of the License Manager server. If the License Manager co-resides on the Contact Center Manager Server, type the IP address for the Contact Center Manager Server.
Primary License Port	The number of the communication port opened between the License Manager and the Contact Center Manager Server. The default port number is 3998 when you use only one License Manager.
Secondary License Manager IP Address	The IP address of the secondary License Manager server. The secondary License Manager server is used only in a corporate licensed environment.

Server Utility software installation

This chapter describes how to install the Avaya Aura™ Contact Centerserver software that monitors and maintains user accounts from a computer remote from the Contact Center Manager Server. You can also use the Server Utility software to monitor database logons, access classes, serial ports, PABX resources, and server settings.

You can install Server Utility on the same server as Contact Center Manager Server, on a separate server or on the redundant Contact Center Manager Server. You can use remote access to use Server Utility on a separate computer.

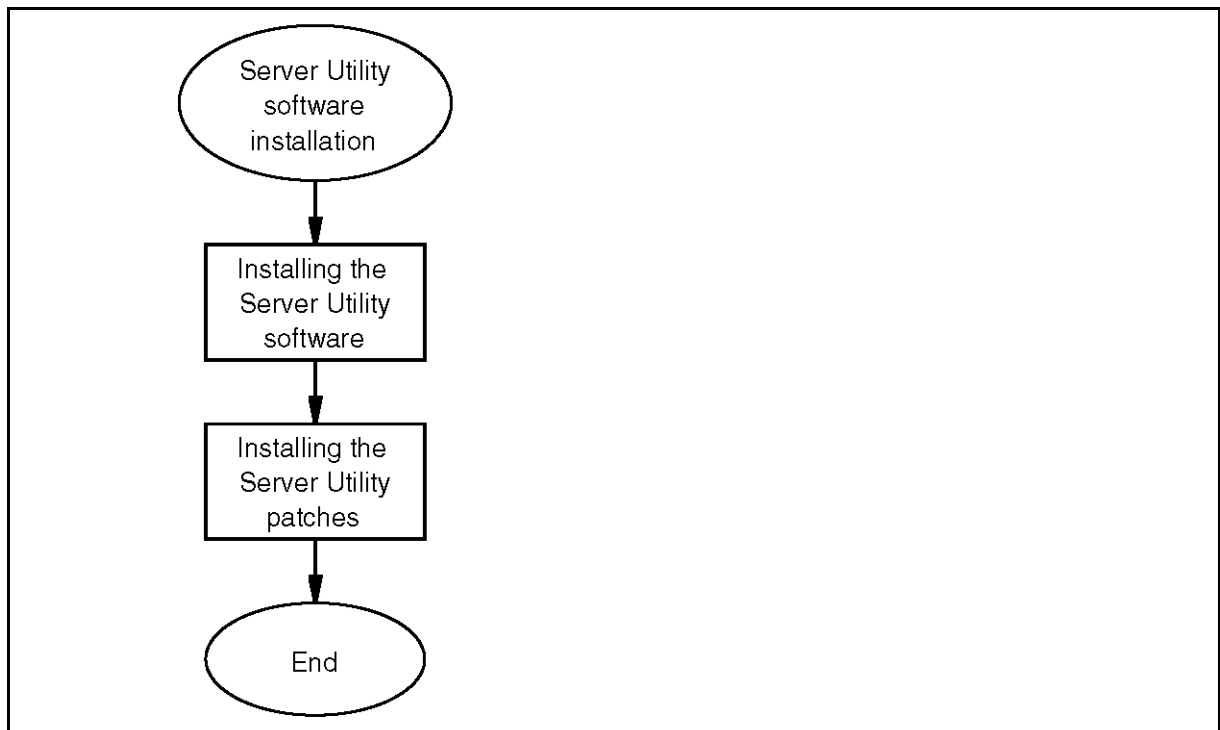
Prerequisites to Server Utility software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Ensure that your new Contact Center license file is available.

Server Utility software installation tasks

This task flow shows you the sequence of procedures you perform to install the Server Utility software on a server. To link to any tasks, click [Server Utility software installation navigation \(page 53\)](#).

Server Utility software installation procedures



Server Utility software installation navigation

- [Installing the Server Utility software and Patches \(page 54\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Manager Server Utility software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Server Utility software and Patches

Install the Contact Center Manager Server Utility software to monitor and configure the user accounts, database logons, access classes, serial ports, PABX resources and server settings from a stand-alone computer.

Prerequisites

- Download the latest Server Utility and common component patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).
- If you install Contact Center Manager Server as part of a co-resident installation, ensure all prerequisites are met for all Contact Center applications that you install on this server.

Procedure steps

Step	Action
1	Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .
3	Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server. If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 .
4	On the Welcome window, click Next .
5	If you already installed a Contact Center server software application on this server, click Add a Component , and then skip to step 8 .
6	On the License Agreement window, read the terms of the agreement.
7	Click I ACCEPT the Terms of the End-User License Agreement .
8	Click Next .
9	On the Application Selection window, from the Select Switch Type list, select the PABX type for your system.
10	Under Install Type , select the installation type for your system.
11	Select Server Utility .

- 12 Click **Next**.
- 13 On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
- 14 Click the **Product Updates Location** tab.
- 15 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 16 Click **Next**.
- 17 On the **Summary** window, review and verify the information.
- 18 Click **Install**.
- 19 After the installation is complete, click **Finish**.
- 20 If prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application destination drive	The location to install the Contact Center Manager Server Utility software on the server.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
Select Switch Type	Type of PABX you use in your contact center to handle telephone contacts. You can choose from the following: • AML Avaya Communication Server 1000 • SIP Avaya Communication Server 1000 • SIP Avaya Aura™ Unified Communications platform • Non Voice Multimedia. This type of installation supports only multimedia contact types.

Contact Center Manager Administration primary server software installation

This chapter describes how to install the browser-based tool for Avaya Aura™ Contact Center administrators and supervisors to manage and configure a contact center and users. The Contact Center Manager Administration (CCMA) software is also used to define access to data, configure call routing, and view real-time and historical reports.

You can install CCMA software alone on a server if you have significant reporting performed in your contact center, or co-resident with Contact Center Manager Server (CCMS) software.

CCMA can be installed on a server with or without replication. If CCMA is installed on a server without replication follow the install sequence and ensure not to select Enable CCMA Replication.

A CCMA replication solution consists of a primary CCMA server with CCMA installed on the primary server without Enable CCMA Replication selected and a standby server with Enable CCMA Replication selected.

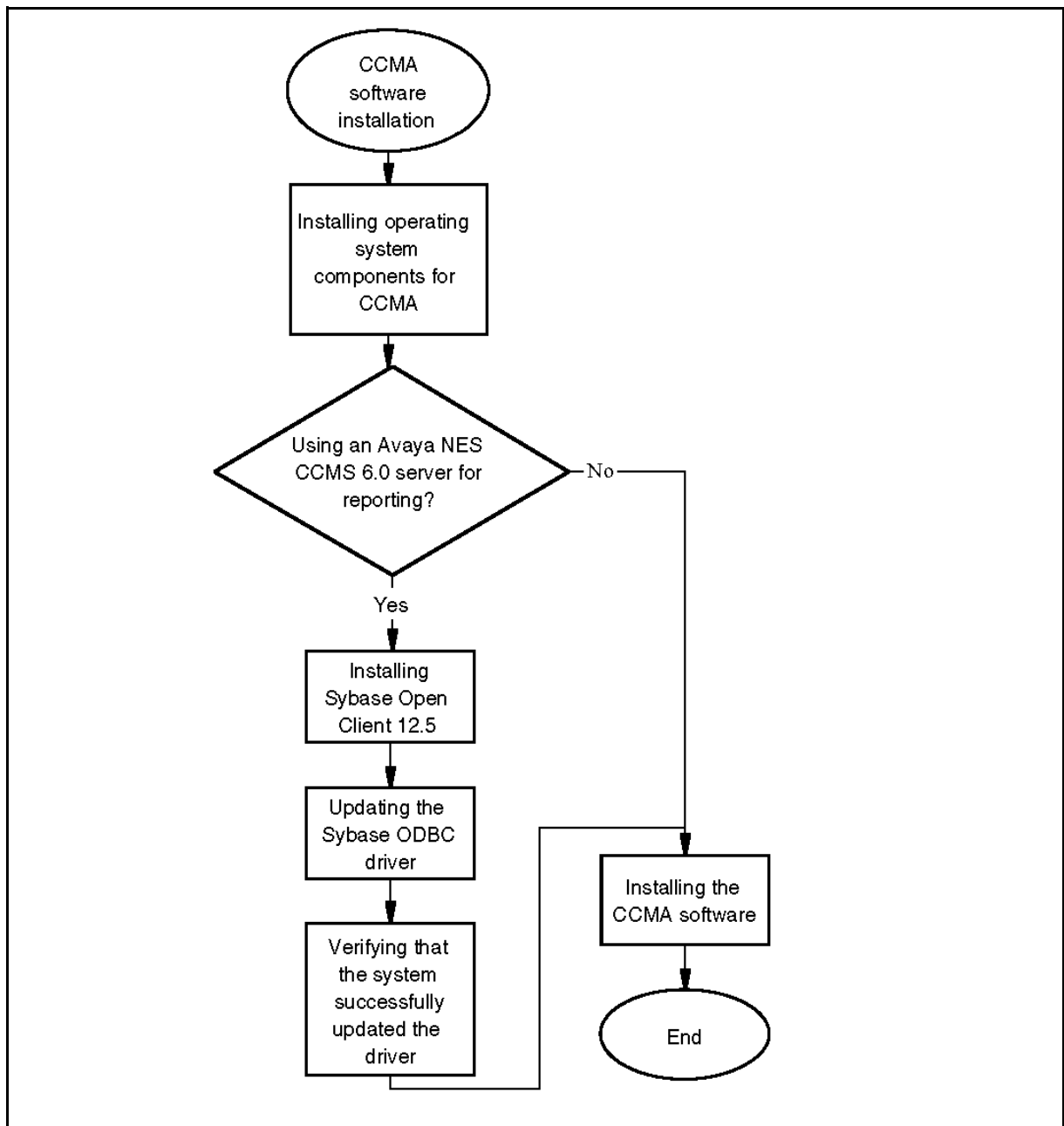
Prerequisites to CCMA primary server software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required for Contact Center Manager Administration. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that your new Contact Center license file is available.

CCMA software installation procedures

This task flow shows you the sequence of procedures you perform to install Contact Center Manager Administration software on your server. To link to any tasks, click [CCMA software installation navigation \(page 58\)](#).

CCMA software installation procedures



CCMA software installation navigation

- [Installing operating system components for Contact Center Manager Administration \(page 59\)](#)
- [Installing Sybase Open Client 12.5 \(page 61\)](#)
- [Updating the Sybase ODBC driver \(page 62\)](#)
- [Verifying that the system successfully updated the driver \(page 63\)](#)

- [Installing the Contact Center Manager Administration primary server software \(page 64\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Manager Administration server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing operating system components for Contact Center Manager Administration

Before installing Contact Center Manager Administration, you must install specific operating system software components such as Microsoft .NET Framework and Internet Information services to integrate the components in Contact Center.

Prerequisites

- Install Windows Server 2008 64-bit Release 2.

Procedure steps

Step	Action
1	Choose Start, Administration Tools, Server Manager .
2	In the left-hand column of the Server Manager , right-click Roles , and select Add Roles .
3	Review the requirements for the new role, and click Next .
4	Under Server Roles , select Active Directory Lightweight Directory Services .
5	If an Add Roles Wizard message box that lists features required by Active Directory Lightweight Directory Services appears, click Add Required Features .
6	Under Server Roles , select Application Server .
7	If an Add Roles Wizard message box that lists features required by Application Server appears, click Add Required Features .
8	In the left column of the Server Manager window, under Application Server , select Role Services .
9	Under Role Services , select Web Server (IIS) Support .
10	If an Add Roles Wizard message box appears, listing features required by Web Server (IIS) Support appears, click Add Required Features .
11	Click Next .
12	On the Web Server (IIS) introduction page, click Next .

- 13** On the **Select Role Services** page, under **Common HTTP Features**, select the following services:

- Static Content
- Default Document
- Directory Browsing
- HTTP Errors
- HTTP Redirection

Attention: All other services check boxes must be cleared.

- 14** On the **Select Role Services** page, under **Application Development**, select the following services:

- ASP.NET
- .NET Extensibility
- ASP
- ISAPI Extensions
- ISAPI Filters
- Server Side Includes

Attention: All other services check boxes must be cleared.

- 15** On the **Select Role Services** page, under **Health and Diagnosis**, select the following services:

- HTTP Logging
- Logging Tools
- Request Monitor
- Tracing

Attention: All other services check boxes must be cleared.

- 16** On the **Select Role Services** page, under **Security**, select all services.

- 17** On the **Select Role Services** page, under **Performance**, select all services.

- 18** On the **Select Role Services** page, under **Management Tools**, select the following services:

- IIS Management Console
- IIS Management Scripts and Tools
- Management Service
- All items under IIS 6 Management Compatibility

Attention: All other services check boxes must be cleared.

- 19 Click **Next**.
- 20 Review the installation information.
- 21 Click **Install**.
- 22 On the **Installation Results** page, click **Close**.
- 23 Restart the server if required.

--End--

Installing Sybase Open Client 12.5

Install Sybase Open Client 12.5 to access and control the content of the Contact Center Manager Administration database.

Perform this step only if you plan to use an Avaya NES Contact Center release 6.0 for reporting statistics.

Prerequisites

- Ensure that you have administrator privileges in Windows Server 2008.
- Use the same administrator account to log on to the Contact Center Manager Administration server each time you install a Contact Center Manager Administration component.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Log onto Contact Center Manager Administration server as the administrator. |
| 2 | Insert the Contact Center installation DVD into the DVD drive. |
| 3 | If the Contact Center DVD installer main menu appears, click Cancel . |
| 4 | Using Windows Explorer, browse in the DVD folder to ThirdParty, Sybase Open Client . |
| 5 | In the Sybase Open Client folder, double-click setup.exe . |
| 6 | Select Standard Install . |
| 7 | Click Next . |
| 8 | In the Choose the installation directory box, accept the default location. |
| 9 | On the Choose Directory dialog box, click Next . |
| 10 | On the Summary dialog box, click Next . |

- 11 On the **Create Directory** dialog box, click **Yes** to confirm the name of the directory to which to copy the files.
- 12 If you upgrade to Sybase version 12.5, the system asks if you want to overwrite the following existing Sybase.DLL files. Click **Yes** when prompted to replace or reinstall these Sybase files:
 - Replace mchelp.dll version 12.0 with version 12.5.0.0
 - Replace mclib.dll version 12.0 with version 12.5.0.0
 - Replace Language Modules version 12.0 with version 12.5
 - Reinstall Component Sybase Central 3.2.0
- 13 If the system prompts you to replace the optional Power Dynamo file, click **Yes**. Replace the optional Power Dynamo file, replace version 3.0.0 with version 3.5.2.
- 14 If the system prompts you to replace any other DLLs, including system DLLs, such as msvcrt40.dll version 4.20, click **No**. Do not replace any system DLLs.
- 15 A message box appears that states the system does not need this update. Click **OK**.
- 16 On the **Sybase Installer Confirmation** dialog box, click **Yes** to restart the system before you configure the installed components.
- 17 Click **OK**.
- 18 Close the Control Panel window.

--End--

Updating the Sybase ODBC driver

Update the Sybase Database Connectivity (ODBC) driver to ensure that you use the latest version.

Perform this step only if you plan to use an Avaya NES Contact Center release 6.0 for reporting statistics.

Prerequisites

- Install Sybase Open Client 12.5.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Click Start, Run . |
| 2 | In the Open box, type cmd . |
| 3 | Click OK . |
| 4 | At the prompt, type iisreset . |

- 5 Press **Enter**.
- 6 At the **MS-DOS** prompt, navigate to the root directory of the Sybase folder on the DVD. For example, <x>: \ThirdParty (<x> is the location of the DVD).
- 7 Change to the directory containing the Sybase Open Client hotfixes. For example, cd Sybase Open Client — Hotfixes.
- 8 Type the following xcopy command:
xcopy EBF11113*. * %SYBASE% /S /E /V /Y > C:\EBF11113.TXT
- 9 Press **Enter**.

--End--

Variable definitions

Command	Description
EBF11113	The directory containing the Sybase ODBC driver.
<SYBASE>	The environment variable containing the directory location of the Sybase Open Client 12.5 software installed on the Contact Center Manager Administration server (for example, c:\sybase).
C:\EBF11113.TXT	The log file that you can use to verify that all the files are copied correctly.

Verifying that the system successfully updated the driver

Verify that the system successfully updated the Sybase ODBC driver to ensure that the Contact Center Manager Administration server software can interact with the database.

Perform this step only if you plan to use an Avaya NES Contact Center release 6.0 for reporting statistics.

Prerequisites

- Update the Sybase ODBC driver.

Procedure steps

- | Step | Action |
|------|--|
| 1 | Browse to C:\Windows\SysWOW64 . |
| 2 | Double-click ODBC Data Source Administrator (odbcad32.exe) to start the 32-bit version of the driver. |
| 3 | On the ODBC Data Source Administrator dialog box, click the Drivers tab. |
| 4 | On the Drivers page, scroll down until you locate the correct Sybase ASE ODBC driver, which is 4.10.00.49 . |

- 5 Click **OK**.
- 6 If the ODBC driver version is not 4.10.00.49, open the log file C:\EBF11113.txt to see any error messages were recorded during the xcopy command.

--End--

Installing the Contact Center Manager Administration primary server software

Install the Contact Center Manager Administration software to enable the administrators and supervisors to configure your contact center users, access, routing, and reporting.

CCMA can be installed on a server with or without replication. If CCMA is installed on a server without replication follow the install sequence and ensure not to select Enable CCMA Replication.

A CCMA replication solution consists of a primary CCMA server with CCMA installed on the primary server without Enable CCMA Replication selected and a standby server with Enable CCMA Replication selected.

Prerequisites

- Install and configure Internet Information Systems (IIS) on your Windows 2008 Release 2 Server.
- If you plan to report statistics from Avaya NES Contact Center release 6.0, install Sybase Open Client 12.5.
- If you plan to report statistics from Avaya NES Contact Center release 6.0, update the Sybase ODBC driver on your server and verify the updated driver if required.
- If you install Contact Center Manager Administration as part of a co-resident installation, ensure all prerequisites are met for all Contact Center applications that you install on this server.
- Download the most recent Contact Center Manager Administration and common component patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |

- 3 Click **Install** to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.
If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click **Accept**. If you are prompted to restart the server, click **Yes** and repeat [step 2](#).
- 4 On the **Welcome** window, click **Next**.
- 5 If you already installed a Contact Center server software application on this server, click **Add a Component**, and then skip to [step 8](#).
- 6 On the **License Agreement** window, read the terms of the agreement.
- 7 Click **I ACCEPT the Terms of the End-User License Agreement**.
- 8 Click **Next**.
- 9 On the **Application Selection** window, from the **Select Switch Type** list, select the PABX type for your system.
- 10 Under **Install Type**, select the installation type for your system.
- 11 Select Contact Center Manager Administration (**CCMA**).
- 12 Click **Next**.
- 13 On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
- 14 Click the **Product Updates Location** tab.
- 15 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 16 Click **Next**.
The System Readiness Check utility runs on the server.
- 17 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.
You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 18 Click **Next**.
- 19 On the **Installation Data** window, type the installation details for each tab.
- 20 Click **Next**.
- 21 On the **Summary** window, review and verify the information.
- 22 Click **Install**.
- 23 After the installation is complete, click **Finish**.
- 24 Disable Java Runtime Environment (JRE) updates. See [Disabling Java Runtime Environment updates \(page 173\)](#).

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

--End--

Variable definitions

Variable	Value
Application destination drive	The drive on which the Contact Center Manager Administration (CCMA) server software is installed.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
Enable CCMA replication	CCMA replication is reproducing an active copy of the database for backup or emergency failure. In case of server failure, a current database is available to maintain the contact center. Clear the check box on the primary server.
LDAP Port Number	The port number for the Lightweight Directory Access Protocol (LDAP) for which common contact information is stored on a server. The default value of the port is 3899. Check with the system administrator to ensure that the port number is not already in use. If you install the Security Framework on the same server as CCMA, you must change the LDAP port number. You cannot use the default number.
SSL Port Number	The port number for the Secure Sockets Layer (SSL) that controls security when applications are communicating across the network. The default port is 6366. Check with the system administrator to ensure that the port number is not already in use. If you are installing the Security Framework on the same server as Contact Center Manager Administration, you must change the SSL port number. You cannot use the default number.
System Account Configuration Password	The password for the CCMA System Account user account. Confirm the password in the second box. The password is not checked against the server security policy for minimum password requirements. Avaya recommends that you enter a password that conforms to your corporate password policy.

Service Creation Environment server software installation

This chapter describes how to install the Service Creation Environment software on a server so that you can create, implement, test, and document flows for routing voice, e-mail, or instant message (IM) contacts.

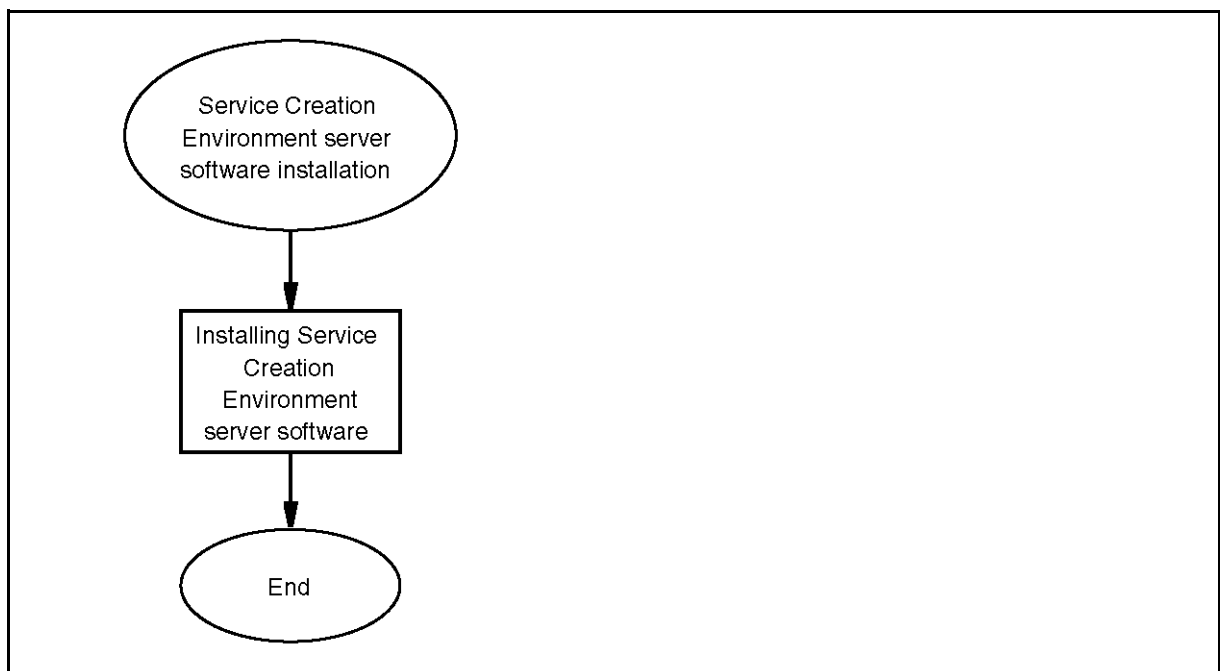
Prerequisites to Service Creation Environment server software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Ensure that your new Contact Center license file is available.

Service Creation Environment server software installation procedures

This task flow shows you the sequence of procedures you perform to install the Service Creation Environment software on a server. To link to any tasks, click [Service Creation Environment server software installation navigation \(page 67\)](#).

Service Creation Environment server software installation procedures



Service Creation Environment server software installation navigation

- [Installing the Service Creation Environment server software \(page 68\)](#)

Job aid: Installation time

The estimated time to install the Service Creation Environment software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Service Creation Environment server software

Install the Service Creation Environment software on a client to create, test and validate scripts for routing calls.

Prerequisites

- Ensure that you have enough free disk space on the C drive. See *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).

Procedure steps

Step	Action
1	Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .
3	Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server. If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 .
4	On the Welcome window, click Next .
5	If you already installed a Contact Center Release 6.0/6.1 server software application on this server, click Add a Component , and then skip to step 8 .
6	On the License Agreement window, read the terms of the agreement.
7	Click I ACCEPT the Terms of the End-User License Agreement .
8	Click Next .
9	On the Application Selection window, from the Select Switch Type list, select the PABX type for your system.
10	Under Install Type , select the installation type for your system.
11	Select Service Creation Environment .
12	Click Next .
13	On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive .
14	Click the Product Updates Location tab.

- 15 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 16 Click **Next**.
- 17 On the **Ready to Install** window, review and verify the information.
- 18 Click **Install**.
- 19 After the installation is complete, click **Finish**.
- 20 If you are prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application destination drive	The location to install the Service Creation Environment software.
Product Updates Location	The parent directory in which your administrator downloads the software patches.

Security Framework software installation

This chapter describes how to install the software that controls the security access to the Contact Center Manager Administration Web application and other applications within Avaya Aura™ Contact Center. The Security Framework software also works with the Avaya Communication Server 1000 or the Media Applications Server applications.

You can install the Security Framework software on the same server in your contact center as the Contact Center Manager Administration software if you use only the Security software for Contact Center. If you use the Security Framework software for more than one application, install the Security Framework on a stand-alone server.

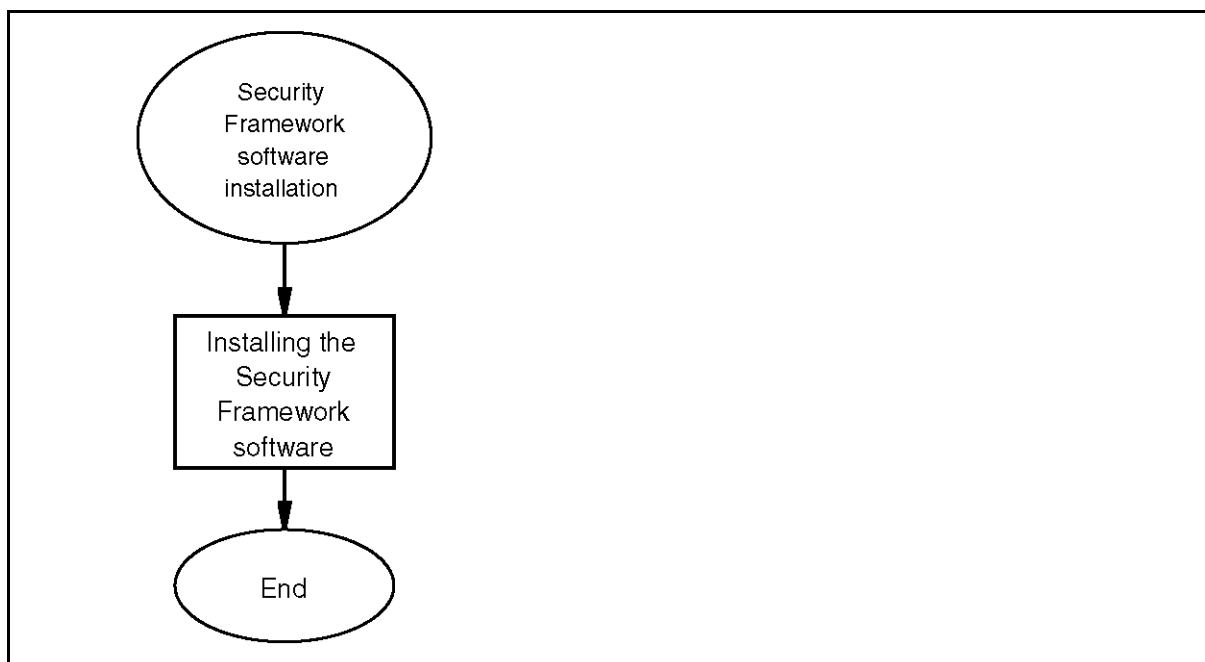
Prerequisites to Security Framework software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that your new Contact Center license file is available.

Security Framework software installation procedures

This task flow shows you the sequence of procedures you perform to install the Security Framework software. To link to any task, click [Security Framework software installation navigation \(page 72\)](#).

Security Framework software installation procedures



Security Framework software installation navigation

- [Installing the Security Framework software \(page 72\)](#)

Job aid: Installation time

The estimated time to install the Security Framework software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Security Framework software

Install the Security Framework software on one server.

Prerequisites

- Download the most recent Security Framework and common component patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).
- If you install Security Framework as part of a co-resident installation, ensure all prerequisites are met for all Contact Center applications that you install on this server.

Procedure steps

Step	Action
1	Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .
3	Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server. If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 .
4	On the Welcome window, click Next .
5	If you already installed a Contact Center server software application on this server, click Add a Component , and then skip to step 8 .
6	On the License Agreement window, read the terms of the agreement.
7	Click I ACCEPT the Terms of the End-User License Agreement .
8	Click Next .
9	On the Application Selection window, from the Select Switch Type list, select the PABX type for your system.
10	Under Install Type , select the installation type for your system.
11	Select Security Framework .

- 12 Click **Next**.
- 13 On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
- 14 Click the **Product Updates Location** tab.
- 15 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 16 Click **Next**.
- 17 On the **Installation Data** window, type the installation details for each tab.
- 18 Click **Next**.
- 19 On the **Ready to Install** window, review and verify the information.
- 20 Click **Install**.
- 21 After the installation is complete, click **Finish**.
- 22 If prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application destination drive	The location to install the Contact Center Manager Server software.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
HTTP Port Number	The port number for the Hypertext Transfer Protocol (HTTP) for request/responses between the clients and servers. The default port is 8091. Check with the system administrator to ensure that the port number is not already in use.
HTTPS Port Number	The port number for the Secure Hypertext Transfer Protocol (HTTPS) for request/responses between the clients and servers. The default port is 8443. Check with the system administrator to ensure that the port number is not already in use.
LDAP Port Number	The port number for the Lightweight Directory Access Protocol (LDAP) for which commonly used contact information is stored on a server. The default value of the port is 3899. Check with the system administrator to ensure that the port number is not already in use.
SSL Port Number	The port number for the Secure Sockets Layer (SSL) that controls security when applications are communicating across the network. The default port is 6366. Check with the system administrator to ensure that the port number is not already in use.

Communication Control Toolkit software installation (contact center)

This chapter describes how to install Communication Control Toolkit (CCT). Communication Control Toolkit enhances the agent and skill-based routing ability of Contact Center Manager Server in a contact center environment. Communication Control Toolkit enables integration with business applications such as CRM systems.

You can install Communication Control Toolkit software alone on a server or co-resident with other Avaya Aura™ Contact Center software applications such as Contact Center Manager Server.

Prerequisites to CCT software installation (contact center)

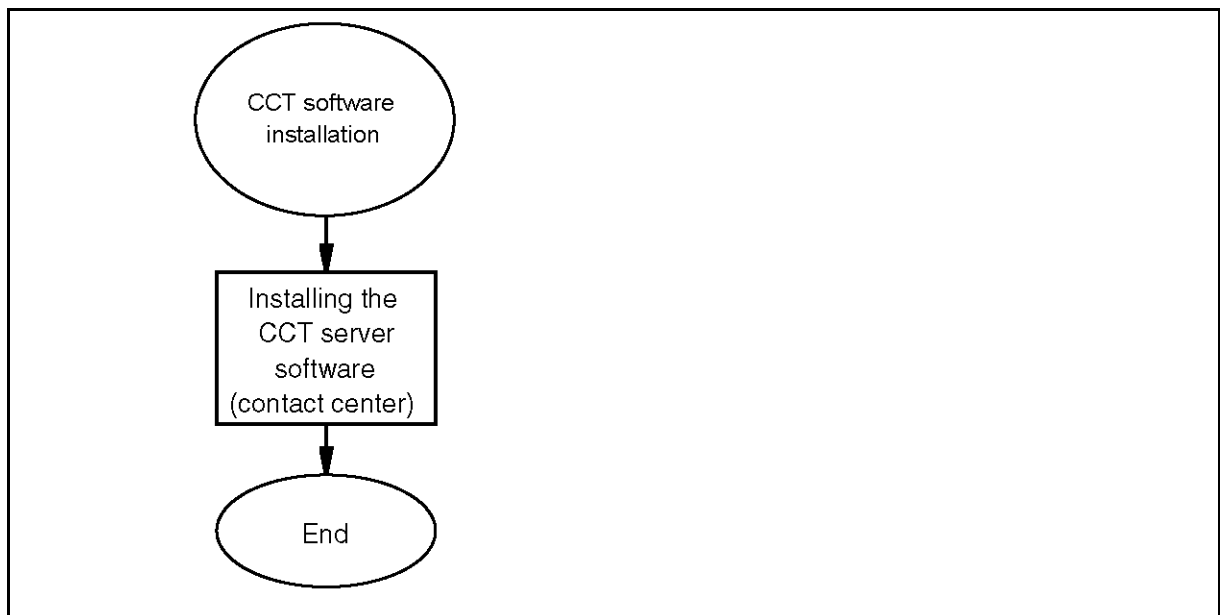
- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Install Contact Center Manager Server, Contact Center License Manager, Server Utility, and Contact Center Manager Administration software in your network.
- Ensure that your new Contact Center license file is available.

Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install CCT.

CCT software installation (contact center) procedures

This task flow shows you the sequence of procedures you perform to install the Communication Control Toolkit software on a server. To link to any task, click [CCT software installation \(contact center\) navigation \(page 76\)](#).

CCT software installation (contact center) procedures



CCT software installation (contact center) navigation

- [Installing the Communication Control Toolkit server software \(contact center\) \(page 76\)](#)

Job aid: Installation time

The estimated time to install the Communication Control Toolkit server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Communication Control Toolkit server software (contact center)

Install the Communication Control Toolkit (CCT) software to enable the agents to receive skill-based contacts in a contact center environment.

Prerequisites

- Download the most recent Communication Control Toolkit and common component patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

- If you install Communication Control Toolkit as part of a co-resident installation, ensure all prerequisites are met for all Contact Center applications that you install on this server.

Procedure steps

Step	Action
1	Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .
3	Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server. If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 .
4	If prompted to accept the Microsoft .NET Framework license agreement, click Accept . If prompted to reboot the server, click Yes and repeat step 2 .
5	On the Welcome window, click Next .
6	If you previously installed server software application on this server, click Add a Component , and then skip to step 12 .
7	On the License Agreement window, read the terms of the agreement.
8	Click I ACCEPT the Terms of the End-User License Agreement .
9	Click Next .
10	On the Application Selection window, from the Select Switch Type list, select the PABX type for your system.
11	Under Install Type , select the installation type for your system.
12	Under Communication Control Toolkit (CCT), select Contact Center Feature Set . In addition to installing the Communication Control Toolkit software development kit, this selection installs the CCT Open Interfaces, which you can license and configure later.
13	Click Next .
14	On the Product Data Upgrade window, click Next .
15	On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive .
16	Click the Database Destination Drive tab.
17	Under Install Communication Control Toolkit Database to , select the drive for the Communication Control Toolkit database.
18	Click the Product Updates Location tab.
19	Under Select the parent directory where patches are stored , select the drive on which you stored the patches. Click Browse to locate the folder.
20	Click Next . <i>The System Readiness Check runs on the server.</i>

Communication Control Toolkit software installation (contact center)

- 21 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 22 Click **Next**.
- 23 In the **Summary** window, confirm all information is correct.
- 24 Click **Install**.
- 25 After the installation is complete, click **Finish**.
- 26 If prompted, restart the server.
- 27 Disable Java Runtime Environment (JRE) updates. See [Disabling Java Runtime Environment updates \(page 173\)](#).

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

--End--

Variable definitions

Variable	Value
Application drive	The location to install the Communication Control Toolkit server software.
Database drive	The location to install the Communication Control Toolkit Caché database.
Product Updates Location	The parent directory in which your administrator downloads the software patches.

Agent Desktop Telephony Toolbar software installation

This chapter describes how to install the Agent Desktop Telephony Toolbar software. The Agent Desktop Telephony Toolbar is part of the Agent Desktop application that agents can use in a contact center that handles all types of customer contacts. The Agent Desktop is part of the Avaya Aura™ Contact Center solution.

If you install Contact Center Multimedia, the Agent Desktop Telephony Toolbar is automatically installed on the Contact Center Multimedia server. In voice-only contact centers, install the Agent Desktop telephony toolbar on the Communication Control Toolkit server.

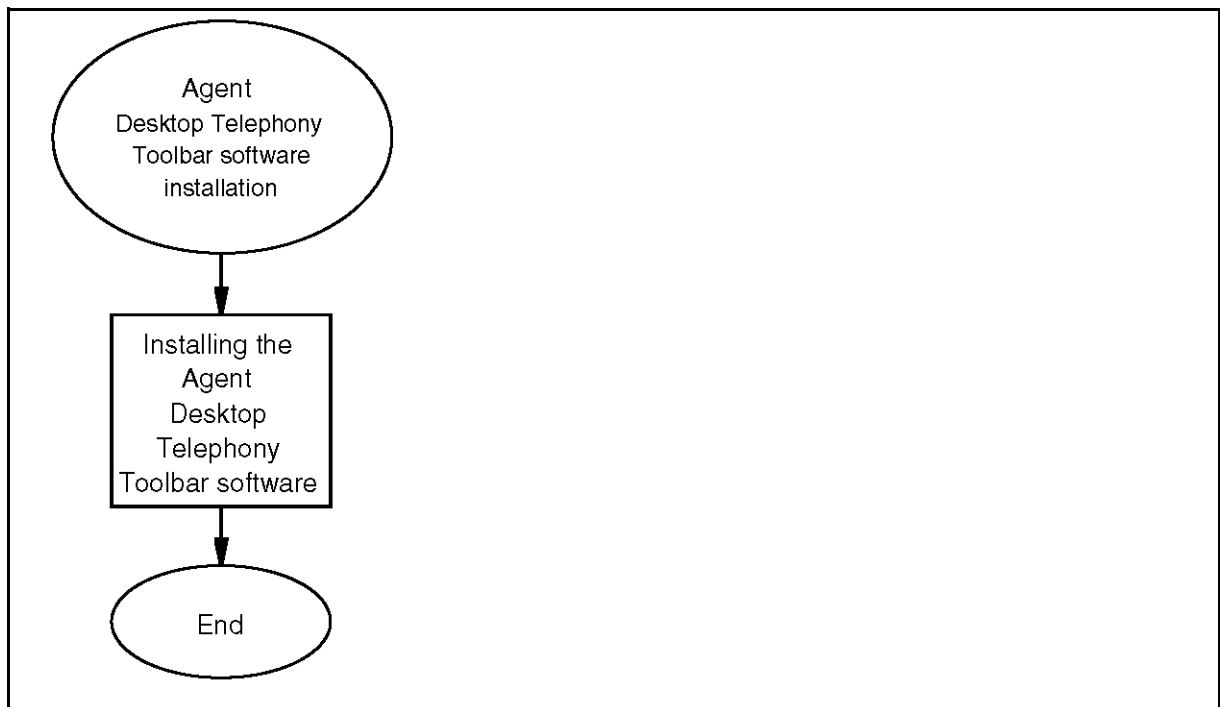
Prerequisites to Agent Desktop Telephony Toolbar software installation

- Prepare your server for Contact Center software installation. See [Server preparation \(page 21\)](#).
- Download the most recent CCMM patches.
- Ensure that your new Contact Center license file is available.

Agent Desktop Telephony Toolbar software installation procedures

This task flow shows you the sequence of procedures you perform to install the Agent Desktop Telephony Toolbar software on your server. To link to any tasks, click [Agent Desktop Telephony Toolbar software installation navigation \(page 80\)](#).

Telephony Toolbar software installation procedures



Agent Desktop Telephony Toolbar software installation navigation

- [Installing the Agent Desktop Telephony Toolbar software \(page 80\)](#)

Job aid: Installation time

The estimated time to install the Agent Desktop software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Agent Desktop Telephony Toolbar software

Install the Agent Desktop Telephony Toolbar software to enable agents in your contact center to handle customer contacts on their computer desktop.

Prerequisites

- Ensure that no instance of Contact Center Multimedia is planned for your network.
- Download the most recent patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

- | Step | Action |
|------|--|
| 1 | Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |
| 3 | Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 . |
| 4 | On the Welcome window, click Next . |
| 5 | If you already installed a Contact Center server software application on this server, click Add a Component , and then skip to step 8 . |
| 6 | On the License Agreement window, read the terms of the agreement. |
| 7 | Click I ACCEPT the Terms of the End-User License Agreement . |
| 8 | Click Next . |
| 9 | On the Application Selection window, from the Select Switch Type list, select the PABX type for your system. |
| 10 | Under Install Type , select the installation type for your system. |
| 11 | Under Multimedia Server (CCMM) , select Agent Desktop Telephony Toolbar . |
| 12 | Click Next . |
| 13 | On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive . |
| 14 | Click the Product Updates Location tab. |
| 15 | Under Select the parent directory where patches are stored , select the drive on which you stored the patches. Click Browse to locate the folder. |
| 16 | Click Next .

<i>The System Readiness Check utility runs on the server.</i> |
| 17 | If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult <i>Avaya Aura™ Contact Center Planning and Engineering</i> (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable. |
| 18 | Click Next . |
| 19 | On the Installation Data window, type the installation details for the tab. |
| 20 | Click Next . |
| 21 | On the Ready to Install window, review and verify the information. |
| 22 | Click Install . |
| 23 | After the installation is complete, click Finish . |

24 If you are prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application destination drive	The drive on which the Contact Center Multimedia software application is installed.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
Backup CCT Server	The name of the backup Communication Control Toolkit server, if one is installed in your network.
Web Stats Server	The name of the optional Web Stats server that agents and supervisors use to view real-time statistics for call handling, skillset data, and the state information on the Agent Desktop.
Web Stats Port	The port number of the Web Stats server. The default port number is 9086.

Network Control Center software installation

This chapter describes how to install the Avaya Aura™ Contact Center server software on a network. The Network Control Center (NCC) server is required when servers in multiple Contact Center Manager Server sites are networked and operate as a single distributed contact center.

You can install the License Manager on a Network Control Center (NCC) server or a Contact Center Manager Server, based on the following rules:

- If you install server applications in a networked environment with an NCC server and you use Corporate Licensing, Avaya recommends that you install the License Manager on the NCC server.
- If you install server applications in a networked environment with an NCC server and you use Nodal Licensing, you must install the License Manager on the Contact Center Manager Server. The NCC server must point to the Contact Center Manager Server node that has a license for the NCC server.

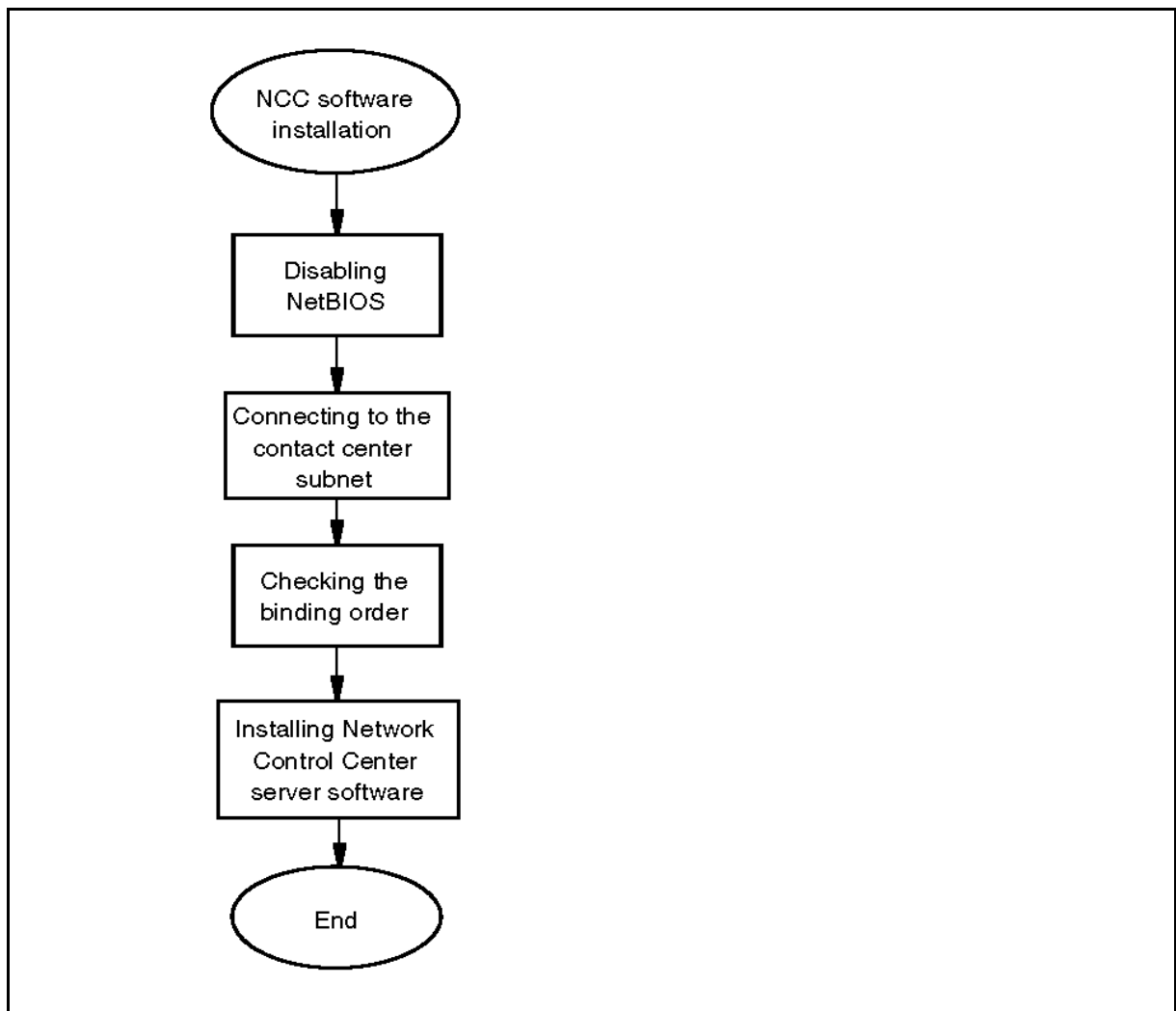
Prerequisites to NCC software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that your new Contact Center license file is available.

NCC software installation procedures

This task flow shows you the sequence of procedures you perform to install Network Control Center software on your server. To link to any tasks, click [NCC software installation navigation \(page 84\)](#).

NCC software installation procedures



NCC software installation navigation

- [Disabling NetBIOS \(page 37\)](#)
- [Connecting to the contact center subnet \(page 38\)](#)
- [Configuring the binding order \(page 39\)](#)
- [Installing the Network Control Center server software \(page 85\)](#)

Job aid: Installation time

The estimated time to install the Network Control Center server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Network Control Center server software

Install the Network Control Center server software to enable your contact center to route contacts to available agents with the correct skills.

Prerequisites

- If you install Contact Center Manager Server software with an AML Avaya Communication Server 1000, ensure the PABX is configured. See *Avaya Aura™ Contact Center Configuration – Avaya CS1000 Integration* (NN44400-512).
- If you install Contact Center Manager Server software with a SIP Avaya Communication Server 1000, ensure the PABX is configured. See *Avaya Aura™ Contact Center SIP Commissioning* (NN44400-511).
- If you install Contact Center Manager Server software with an Avaya Aura™ Unified Communications platform, ensure the platform is configured. See *Avaya Aura™ Contact Center Configuration – Avaya Aura™ Unified Communications Platform Integration* (NN44400-521).
- Download the most recent Network Control Center patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Contact Center DVD into the DVD ROM drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |
| 3 | Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 . |
| 4 | On the Welcome window, click Next . |
| 5 | On the License Agreement window, read the terms of the agreement. |
| 6 | Click I ACCEPT the Terms of the End-User License Agreement . |
| 7 | Click Next . |
| 8 | On the Application Selection window, from the Select Switch Type list, select the PABX type for your system. |
| 9 | Under Install Type , select the installation type for your system. |
| 10 | Under Contact Center Manager Server (CCMS), select Network Control Center . |
| 11 | Click Next . |
| 12 | On the Product Data Upgrade window, click Next . |
| 13 | On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive . |
| 14 | Click the Database Destination Drive tab. |

- 15 Under **Install Manager Server database to**, select the drive for the Contact Center Manager Server database.
- 16 Click the **Product Updates Location** tab.
- 17 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 18 Click **Next**.
The System Readiness Check utility runs on the server.
- 19 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 20 Click **Next**.
- 21 On the **Installation Data** window, type the installation details for each tab.
- 22 Click **Next**.
- 23 On the **Summary** window, review and verify the information.
- 24 Click **Install**.
- 25 After the installation is complete, click **Finish**.
- 26 If you are prompted, restart the server.

--End--

Procedure job aid

The following table provides a list of common Contact Center Manager Server variable definitions.

Variable	Value
Application destination drive	The location to install the Contact Center Manager Server software. You must install the CCMS software to D:\Avaya\Contact Center.
Database destination drive	The location to install the Contact Center Manager Server Caché database. Install the CCMS database on the database destination drive in the Avaya\Contact Center\Database\CCMS folder.
Product updates location	The parent directory of the software patches.
Customer Name	The designated person in charge of the Contact Center Manager Server software.
Company Name	The name of the company using the Contact Center Manager Server software.
(1 of 2)	

Variable	Value
Site Name	The site name for the Contact Center Manager Server. The site name must not contain spaces or nonalphabetical characters except hyphen (-) and underscore (_). The first character must be a letter. The site name must be unique and can consist of 6 to 15 characters.
RSM IP Address	The RSM IP Address of the server to associate with sending real-time data. The IP address must be from 224.0.1.0 to 239.255.255.255. The default is 230.0.0.1.
Contact Center Server Subnet IP Address	The IP Address of the subnet that connects the Contact Center servers (Contact Center Manager Server, Network Control Center, Contact Center Manager Administration, Contact Center Multimedia, and (optionally) Avaya CallPilot™) are connected.
ELAN Subnet IP Address	The IP Address of the embedded local area network, a dedicated Ethernet LAN that connects the Contact Center Manager Server and the PABX. You must select the check box for the ELAN subnet IP Address if you use an ELAN subnet.
Select Switch Type	Type of PABX you use in your contact center to handle telephone contacts. You can choose from the following: • AML Avaya Communication Server 1000 • SIP Avaya Communication Server 1000 • SIP Avaya Aura™ Unified Communications platform • No Switch Configured. Select this option when installing Avaya Aura™ Contact Center for multimedia only—Non Voice Multimedia
Install Type	The type of installation, you can choose from the following: • Multimedia and Voice. This type of installation supports voice and multimedia contact types. • Non Voice Multimedia. This type of installation supports only multimedia contact types.
(2 of 2)	

The following table provides a list of variables specific to the Licensing tab.

Variable	Value
CCMS Package	The installation package indicates the licenses that you have purchased.
Optional Packages	You must choose the package you have purchased. Some packaged features include the following: • Universal Networking—Use Network Skill-Based Routing to route voice and multimedia contacts between networked sites in a mixed PABX environment. • Open Queue—Use Contact Center Multimedia to route multimedia contacts to agents by using the existing scripting and skillset routing features available for calls. You must install and license the Open Queue feature for Agent Desktop. Instant Messaging is available only on SIP Avaya Communication Server 1000.
Primary License Manager IP Address	The IP address of the License Manager server. If the Contact Center License Manager co-resides on the Contact Center Manager Server, type the IP address for the Contact Center Manager Server.
Primary License Port	The number of the communication port opened between the License Manager and the Contact Center Manager Server. The default port number is 3998 when you use only one License Manager.
Secondary License Manager IP Address	The IP address of the secondary License Manager server. The secondary License Manager server is used only in a corporate licensed environment.
Switch Serial Number	The serial number for the Contact Center License Manager. You must obtain the serial number from your distributor.

Communication Control Toolkit software installation (knowledge worker)

This chapter describes how to install the Avaya Aura™ Contact Center Communication Control Toolkit on a server that is connected directly to the PABX. The contact center has no Contact Center Manager Server and, therefore, no skill-based routing capability.

In a knowledge worker or direct-connect configuration, you must install Communication Control Toolkit software and a License Manager application on your network. Each application can stand alone or be co-resident on a server. You install the Contact Center License Manager application as the licensing mechanism.

Prerequisites to CCT software installation (knowledge worker)

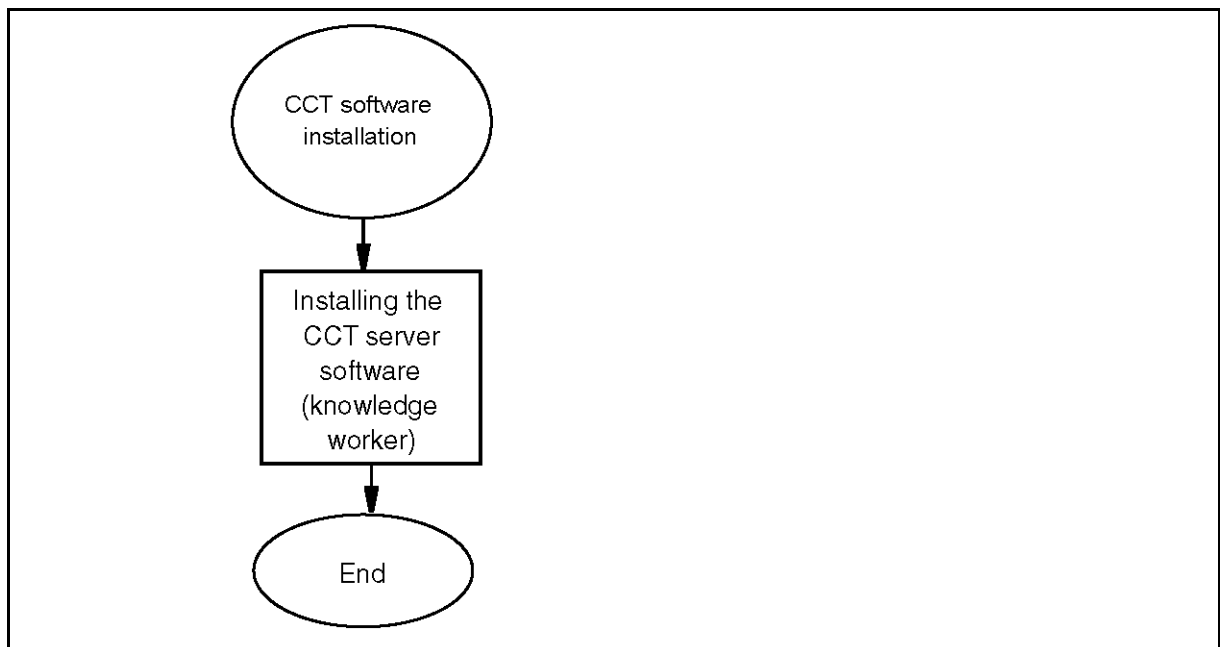
- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Install the Contact Center License Manager software on your network.
- Ensure that your new Contact Center license file is available.

Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install the CCT software.

CCT software installation (knowledge worker) procedures

This task flow shows you the sequence of procedures you perform to install the Communication Control Toolkit software on a server for use in a knowledge worker environment. To link to any tasks, click [CCT software installation \(knowledge worker\) navigation \(page 90\)](#).

CCT software installation (knowledge worker) procedures



CCT software installation (knowledge worker) navigation

- [Installing the Communication Control Toolkit server software \(knowledge worker\) \(page 90\)](#)

Job aid: Installation time

The estimated time to install the Communication Control Toolkit server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Communication Control Toolkit server software (knowledge worker)

Install the Communication Control Toolkit (CCT) software to enable the Computer-Telephony Integration (CTI) between the PABX and the applications.

Prerequisites

- Install the License Manager server software on the server on which you plan to install Communication Control Toolkit. See [Installing the License Manager software \(page 50\)](#).

- Download the most recent Communication Control Toolkit and common component patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).
- Install Microsoft.NET Framework 3.5 SP1.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |
| 3 | Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 . |
| 4 | On the Welcome window, click Next . |
| 5 | If you already installed a Contact Center server software application on this server, click Add a Component , and then skip to step 8 . |
| 6 | On the License Agreement window, read the terms of the agreement. |
| 7 | Click I ACCEPT the Terms of the End-User License Agreement . |
| 8 | Click Next . |
| 9 | On the Application Selection window, from the Select Switch Type list, select the PABX type for your system. |
| 10 | Under Install Type , select installation type for your system. |
| 11 | Under Communication Control Toolkit (CCT) , select Knowledge Worker Feature Set .

In addition to installing the Communication Control Toolkit software development kit, this selection installs the CCT Open Interfaces, which you can license and configure later. |
| 12 | Click Next . |
| 13 | On the Product Data Upgrade window, click Next . |
| 14 | On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive . |
| 15 | Click the Database Destination Drive tab. |
| 16 | Under Install Communication Control Toolkit Database to , select the drive for the Communication Control Toolkit database. |
| 17 | Click the Product Updates Location tab. |
| 18 | Under Select the parent directory where patches are stored , select the drive on which you stored the patches. Click Browse to locate the folder. |
| 19 | Click Next .

<i>The System Readiness Check runs on the server.</i> |

- 20** If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.
- You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 21** Click **Next**.
- 22** In the **Summary** window, confirm all information is correct.
- 23** Click **Install**.
- 24** After the installation is complete, click **Finish**.
- 25** If prompted, restart the server.
- 26** Disable Java Runtime Environment (JRE) updates. See [Disabling Java Runtime Environment updates \(page 173\)](#).

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

--End--

Variable definitions

Variable	Value
Application drive	The location to install the Communication Control Toolkit server software.
Database drive	The location to install the Communication Control Toolkit Caché database.
Product Updates Location	The parent directory in which your administrator downloads the software patches.

Co-resident server software installation

This chapter provides the steps to perform a typical installation of Avaya Aura™ Contact Center server software on a co-resident server. A typical co-resident server for small contact centers includes the following server software that connects to a PABX:

- Contact Center Manager Server
- Contact Center Manager Server Utility
- Contact Center License Manager
- Contact Center Manager Administration
- Communication Control Toolkit
- Contact Center Multimedia
- Media Application Server

In a co-resident installation, you cannot install Security Framework on the same server as the MAS software. To enable security in co-resident environment, you must configure security as part of MAS or install Security Framework on a standalone server.

Prerequisites to co-resident server software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Copy the most recent patches for the Contact Center software. See [Downloading the most recent patches to the server \(page 30\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that your new Contact Center license file is available.

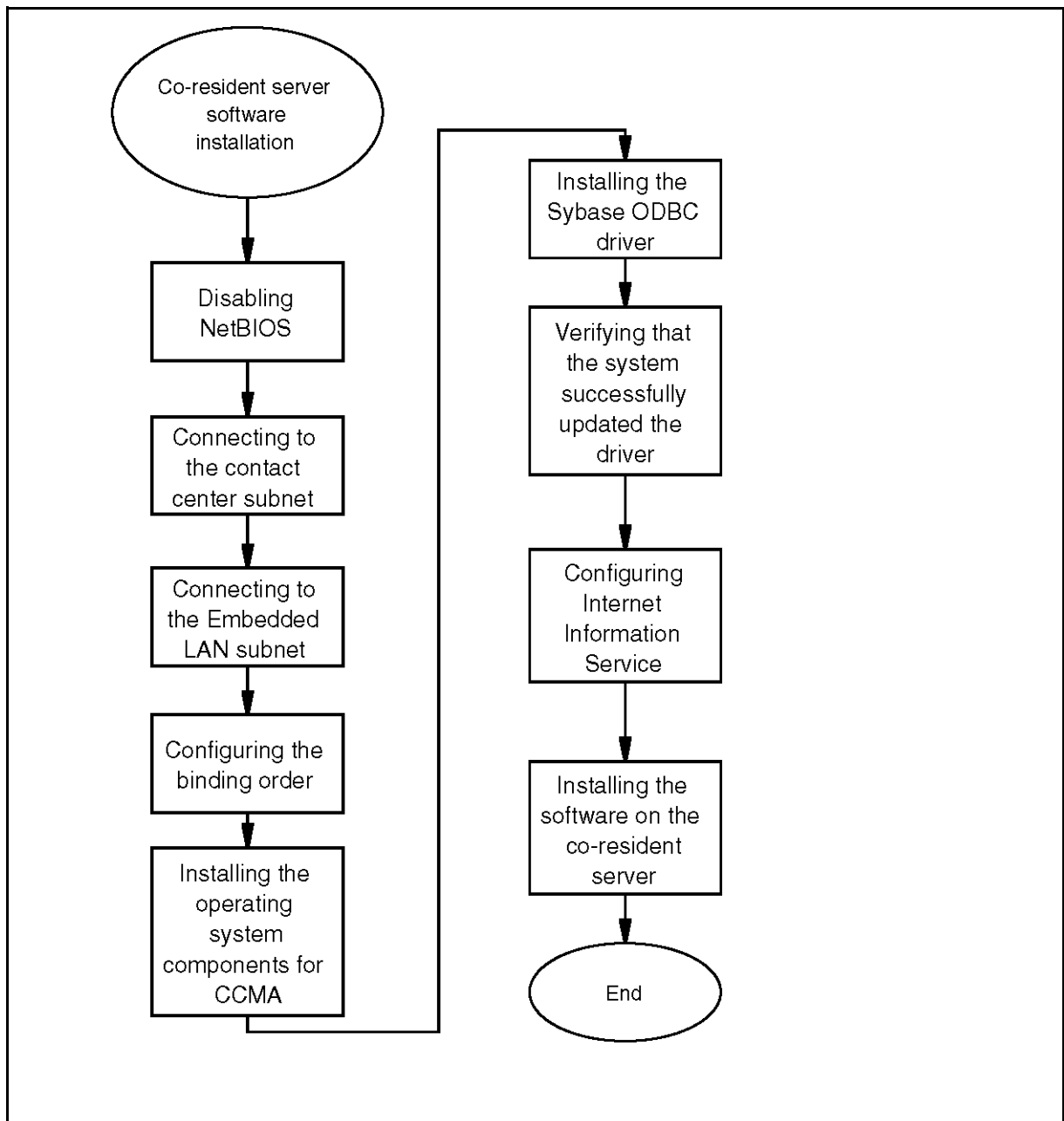
Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install Contact Center server software.

Co-resident server software installation procedures

This task flow shows you the sequence of procedures you perform to install many Contact Center server software applications on your co-resident server. To link to any task, click [Co-resident server software installation navigation \(page 94\)](#).

Co-resident server software installation

Co-resident server software installation procedures



Co-resident server software installation navigation

- [Disabling NetBIOS \(page 37\)](#)
- [Connecting to the contact center subnet \(page 38\)](#)
- [Connecting the Embedded LAN subnet \(page 38\)](#)
- [Configuring the binding order \(page 39\)](#)

- [Installing operating system components for Contact Center Manager Administration \(page 59\)](#)
- [Installing Sybase Open Client 12.5 \(page 61\)](#)
- [Updating the Sybase ODBC driver \(page 62\)](#)
- [Verifying that the system successfully updated the driver \(page 63\)](#)
- [Configuring Internet Information Service \(page 109\)](#)
- [Installing the server software on the co-resident server \(page 95\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Manager Server software is 60 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the server software on the co-resident server

Install the Contact Center software and enable your contact center to route contacts to the agents can answer the call with the correct skills.

Prerequisites

- If you install Contact Center Manager Server software with an AML Avaya Communication Server 1000, ensure the PABX is configured. See *Avaya Aura™ Contact Center Configuration – Avaya CS1000 Integration* (NN44400-512).
- If you install Contact Center Manager Server software with a SIP Avaya Communication Server 1000, ensure the PABX is configured. See *Avaya Aura™ Contact Center SIP Commissioning* (NN44400-511).
- If you install Contact Center Manager Server software with an Avaya Aura™ Unified Communications platform, ensure the platform is configured. See *Avaya Aura™ Contact Center Configuration – Avaya Aura™ Unified Communications Platform Integration* (NN44400-521).
- Download the most recent Contact Center and Common Components patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

Step	Action
1	Insert the Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .

- 3 Click **Install** to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.
If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click **Accept**. If you are prompted to restart the server, click **Yes** and repeat [step 2](#).
- 4 On the **Welcome** window, click **Next**.
- 5 If you already installed a Contact Center server software application on this server, click **Add a Component**, and then skip to [step 8](#).
- 6 On the **License Agreement** window, read the terms of the agreement.
- 7 Click **I ACCEPT the Terms of the End-User License Agreement**.
- 8 Click **Next**.
- 9 On the **Application Selection** window, from the **Select Switch Type** list, select the PABX type for your system.
- 10 Under **Install Type**, select installation type for your system.
- 11 Under Contact Center Manager Server (**CCMS**), select **Nodal Server**.
In addition to installing Contact Center Manager Server, this selection installs the Open Queue Open Interface, the Open Networking Open Interface and Multiplicity which you can license and configure at a later time.
- 12 Under **Communication Control Toolkit (CCT)**, select **Contact Center Feature Set**.
- 13 Under **Contact Center Multimedia Server (CCMM)**, if applicable, select **CCMM Primary Server**.
- 14 Select **Media Application Server**, if applicable and if not installing Security Framework.
- 15 Select **License Manager Server**.
- 16 Select Contact Center Manager Administration (**CCMA**).
- 17 Select **Server Utility**.
- 18 Click **Next**.
- 19 On the **Product Data Upgrade** window, click **Next**.
- 20 On the **Destination Location** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
- 21 Click the **Database Destination Drive** tab.
- 22 Under **Select the destination drive for the Contact Center database files**, select the drive for the Contact Center Manager Server database.
- 23 Under **Select the destination drive for the Contact Center database files**, select the drive for the Communication Control Toolkit database.
- 24 Under **Select the destination drive for the Contact Center database files**, select the drive for the Contact Center Multimedia database.
- 25 Click the **Product Updates Location** tab.

- 26 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 27 Click **Next**.
The System Readiness Check runs on the server.
- 28 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 29 Click **Next**.
- 30 On the **Installation Data** window, type the installation details for each tab.

If Communication Control Toolkit or Contact Center Multimedia are part of the solution, you must select the **Open Queue** check box on the **Licensing** tab and complete the details on the corresponding **CCT Server** tab.
- 31 Click **Next**.
- 32 On the **Summary** window, review and verify the information.
- 33 Click **Install**.
- 34 After the installation is complete, click **Finish**.
- 35 If prompted, restart the server.
- 36 Disable Java Runtime Environment (JRE) updates. See [Disabling Java Runtime Environment updates \(page 173\)](#).

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

--End--

Procedure job aid

The following table provides a list of common Contact Center Manager Server variable definitions.

Variable	Value
Application destination drive	The location to install the Contact Center Manager Server software. You must install the CCMS software to D:\Avaya\Contact Center.
Database destination drive	The location to install the Contact Center Manager Server Caché database. Install the CCMS database on the database destination drive in the Avaya\Contact Center\Database\CCMS folder.
(1 of 2)	

Variable	Value
Product Updates Location	The parent directory of the software patches.
Customer Name	The designated person in charge of the Contact Center Manager Server software.
Company Name	The name of the company using the Contact Center Manager Server software.
Site Name	The site name for the Contact Center Manager Server. The site name must not contain spaces or nonalphabetical characters except hyphen (-) and underscore (_). The first character must be a letter. The site name must be unique and can consist of 6 to 15 characters.
RSM IP Address	The RSM IP Address of the server to associate with sending real-time data. The IP address must be from 224.0.1.0 to 239.255.255.255. The default is 230.0.0.1.
Contact Center Server Subnet IP Address	The IP Address of the subnet that connects the Contact Center servers (Contact Center Manager Server, Network Control Center, Contact Center Manager Administration, Contact Center Multimedia, and (optionally) CallPilot) are connected.
ELAN Subnet IP Address	The IP Address of the embedded local area network, a dedicated Ethernet LAN that connects the Contact Center Manager Server and the PABX. You must select the check box for the ELAN subnet IP Address if you use an ELAN subnet.
Select Switch Type	Type of PABX you use in your contact center to handle telephone contacts. You can choose from the following: • AML Avaya Communication Server 1000 • SIP Avaya Communication Server 1000 • SIP Avaya Aura™ Unified Communications platform • No Switch Configured. Select this option when installing Avaya Aura™ Contact Center for multimedia only—Non Voice Multimedia installations.
Install Type	The type of installation, you can choose from the following: • Multimedia and Voice. This type of installation supports voice and multimedia contact types. • Non Voice Multimedia. This type of installation supports only multimedia contact types.
(2 of 2)	

The following table provides a list of AML Avaya Communication Server 1000-specific variables.

Variable	Value
Switch Name	The name of the Avaya Communication Server 1000. Valid characters for PABX names are A–Z, a–z, 0–9, underscore (_), and period (.). PABX names must begin with an alphabetical character and cannot contain spaces. The last character must not be an underscore or a period. PABX names must not exceed 80 characters in length.
Switch IP Address	The IP address of the PABX.
Alternative Switch IP Address	The IP address of the PABX, if there is more than one IP address registered for the PABX.
Switch Customer Number	The customer number for the PABX.
Voice Connection Type	The method used to connect to the PABX. If you use Avaya CallPilot™, beside Voice Connection Type, select TCP and specify the ELAN subnet IP address of the Avaya CallPilot™ server and then configure the CallPilot Server Port to 10008.
CallPilot IP Address	The IP address of the primary Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.
CallPilot Port	The port number of the primary Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.
CallPilot Alternative IP Address	The IP address of the alternate Avaya CallPilot™ voice connection for the Avaya Communication Server 1000 PABX.
CallPilot Alternative Port	The port number of the alternate Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.

The following table provides a list of configuration variables specific to the SIP Avaya Communication Server 1000.

Variable	Value
Local SIP Subscriber	Information about the environment of the SIP-enabled contact center, and how to identify the server within its network.
- Contact Center Name - Domain - Password - Network Transport	The registration user name on the registration proxy. Use a suitable user name following the standards in your system. Associated domain name for the SIP-enabled contact center. Password for the registration user name. The SIP Communication protocol accepted by the system for incoming calls. TCP/UDP Port default is 5060 TLS Port default is 5061
SIP Server Type	Type of SIP proxy for the contact center integration
MS_Locale	Locale (including language and dialects) of the system environment.
SIP Proxy Server	Information about the server that provides support for SIP Computer Telephony Integration so that Agent Desktop can acquire and control agent telephones for TR87. Avaya recommends that you use the conventions used within your environment (for example, use the conventions associated with your Network Routing Service on Avaya Communication Server 1000.
- IP Address - Port - Transport	The IP address of the SIP Proxy Server. The server listening port. The default port is 5060. The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for Avaya Communication Server 1000 and TLS for the Avaya Aura™ Unified Communications platform.
SIP IM Proxy Server	Information about the server that supports the deployment of Instant Message over SIP. IM is only available on a SIP Avaya Communication Server 1000.
- IP Address - Port - Transport	The IP address of the SIP IM Proxy Server. The server listening port. The default port is 5060. The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP.
(1 of 2)	

Variable	Value
Presence server	The server that monitors and advises clients of the activity status. IM and presence features are only supported in an OCS-enabled SIP Avaya Communication Server 1000. These features are not supported in an Avaya Aura™ Unified Communications platform.
SIP Registration	Registration of Route Points as endpoints on your Proxy Server. This is not required for this release.
SIP CTI Proxy Server	Information about the server that provides support for outbound calls, such as routing a call to an agent telephone. Avaya recommends that you use the conventions within your existing environment. For example, use the same settings as the current settings if you are using an Network Routing Server within an Avaya Communication Server 1000 environment.
• IP	The IP address of the SIP CTI Proxy Server.
• Port	The server listening port. The default port is 5060.
• Transport	The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for AML Avaya Communication Server 1000 and TLS for the Avaya Aura™ Unified Communications platform.
(2 of 2)	

The following table provides a list of variables specific to the Licensing tab.

Variable	Value
CCMS Package	The installation package indicates the licenses that you have purchased.
Optional Packages	You must choose the package you have purchased. Some packaged features include the following: • Universal Networking—Use Network Skill-Based Routing to route voice and multimedia contacts between networked sites in a mixed PABX environment. • Open Queue—Use Contact Center Multimedia to route multimedia contacts to agents by using the existing scripting and skillset routing features available for calls. You must install and license the Open Queue feature for Agent Desktop. • Multiplicity—Use Multiplicity to enable an agent to manage multiple contacts simultaneously by configuring a Multiplicity Presentation Class (MPC) in CCMA and assigning it to an agent. Instant Messaging is available only on SIP Avaya Communication Server 1000.
(1 of 2)	

Variable	Value
Primary License Manager IP Address	The IP address of the License Manager server. If the Contact Center License Manager co-resides on the Contact Center Manager Server, type the IP address for the Contact Center Manager Server.
Primary License Port	The number of the communication port opened between the License Manager and the Contact Center Manager Server. The default port number is 3998 when you use only one License Manager.
Secondary License Manager IP Address	The IP address of the secondary License Manager server. The secondary License Manager server is used only in a corporate licensed environment.
Switch Serial Number	The serial number for the Contact Center License Manager. You must obtain the serial number from your distributor.
(2 of 2)	

The following table provides a list of CCMA-specific variables.

Variable	Value
Application destination drive	The drive on which the Contact Center Manager Administration (CCMA) server software is installed.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
Enable CCMA replication	CCMA replication is reproducing an active copy of the database for backup or emergency failure. In case of server failure, a current database is available to maintain the contact center. Clear the check box on the primary server.
LDAP Port Number	The port number for the Lightweight Directory Access Protocol (LDAP) for which common contact information is stored on a server. The default value of the port is 3899. Check with the system administrator to ensure that the port number is not already in use. If you install the Security Framework on the same server as CCMA, you must change the LDAP port number. You cannot use the default number.
(1 of 2)	

Variable	Value
SSL Port Number	The port number for the Secure Sockets Layer (SSL) that controls security when applications are communicating across the network. The default port is 6366. Check with the system administrator to ensure that the port number is not already in use. If you are installing the Security Framework on the same server as Contact Center Manager Administration, you must change the SSL port number. You cannot use the default number.
System Account Configuration Password	The password for the CCMA System Account user account. Confirm the password in the second box. The password is not checked against the server security policy for minimum password requirements. Avaya recommends that you enter a password that conforms to your corporate password policy.
(2 of 2)	

The following table provides a list of CCT-specific variables.

Variable	Value
CCT Host Name	The host name of the remote Communication Control Toolkit server (applicable to configurations for which the Communication Control Toolkit is not co-resident with Contact Center Manager Server).
CCT Port A1, A2, B1, B2	Accept the default CCT Port numbers unless you must change them for security purposes.
Use a Remote CCT Server	Select this check box if the Communication Control Toolkit server does not co-reside with the Contact Center Manager Server.

CCT-IVR software installation

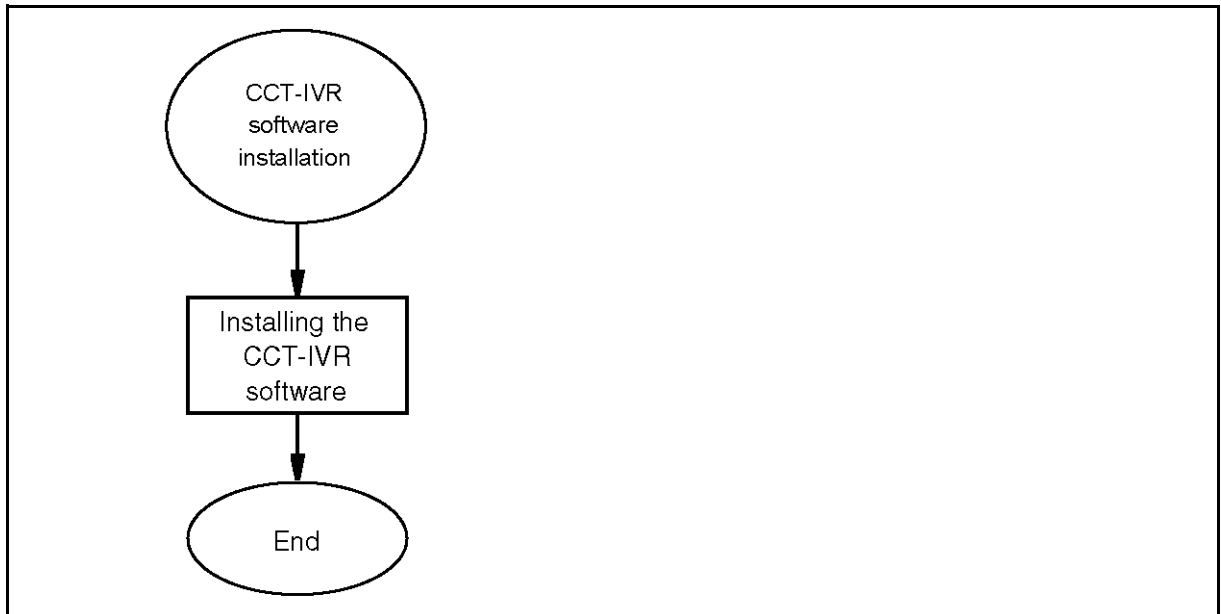
This chapter describes how to install the CCT-IVR software. Use CCT-IVR to handle voice contacts automatically without agent interaction. Installed with Contact Center, CCT-IVR allows both automatic voice responses and agents to work with customers to handle incoming voice contacts.

Attention: CCT-IVR is supported only on the Windows Server 2003 operating system. CCT-IVR is not supported co-resident with Avaya Aura™ Contact Center software.

CCT-IVR software installation procedures

This task flow shows you the sequence of procedures you perform to install the CCT-IVR software on a server. To link to any tasks, click [CCT-IVR software installation navigation \(page 105\)](#).

CCT-IVR software installation procedures



CCT-IVR software installation navigation

- [Installing CCT-IVR \(page 106\)](#)

Installing CCT-IVR

Install the third-party interactive voice response (IVR) software.

Procedure steps

- | Step | Action |
|------|--|
| 1 | Insert the Contact Center DVD into the DVD drive of your server. |
| 2 | Navigate to the folder where CCTIVR is stored. |
| 3 | Double-click IVR-CTIInstaller.exe . |
| 4 | If you are prompted, restart the server. |

--End--

Contact Center Multimedia software installation

This chapter describes how to install the optional Avaya Aura™ Contact Center Multimedia server software that enables your contact center to handle multimedia contacts, depending on the PABX you use and your licensed features. Contact Center Multimedia (CCMM) software enables routing of e-mail (including voice mail, SMS, faxes, and scanned documents), outbound, instant messaging and Web communication contacts to appropriate agents based on subject, contact type, or the time that the contact arrives.

In large contact center environments, you must install the Contact Center Multimedia software alone on a server in your network. In some small contact center environments, you can install Contact Center Multimedia co-resident with the other server applications (CCMS, CCMA, CCT). Separate servers are required for e-mail, Web communication, and some outbound call processing.

Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install CCMM.

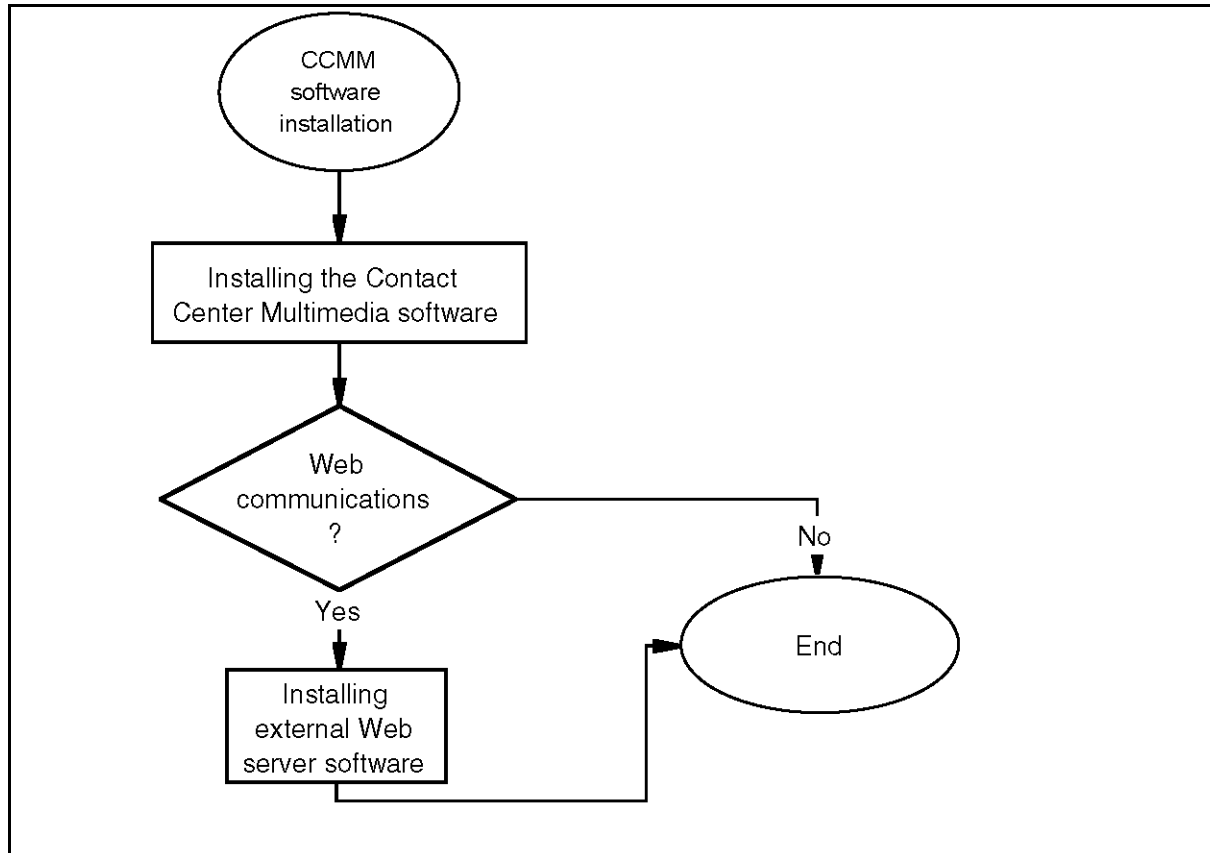
Prerequisites to CCMM software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Download all supported patches. See [Installing the latest operating system service packs \(page 28\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Install Internet Information Service (IIS), Active Directory Lightweight Directory Services and Application Server roles (see [Installing operating system components for Contact Center Manager Administration \(page 59\)](#)).
- If you use e-mail in your contact center, install and configure an inbound e-mail server and an outbound e-mail server in your network.
- If you use Web communications in your contact center, install and configure a Web server in your network.
- If you use predictive outbound in your contact center, ensure that the predictive outbound hardware and software is configured for your network.
- Install Contact Center Manager Server, Contact Center License Manager, Contact Center Manager Server Utility, Contact Center Manager Administration, and Communication Control Toolkit software in your network.
- Ensure that your new Contact Center license file is available.

CCMM software installation procedures

This task flow shows you the sequence of procedures you perform to install Contact Center Multimedia software on your server. To link to any procedure, go to [CCMM software installation navigation \(page 108\)](#).

Contact Center Multimedia server installation procedures



CCMM software installation navigation

- [Configuring Internet Information Service \(page 109\)](#)
- [Configuring Data Execution Prevention \(page 110\)](#)
- [Installing the Contact Center Multimedia server software \(page 111\)](#)
- [Installing the external Web server software \(page 115\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Multimedia server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Configuring Internet Information Service

Configure Internet Information Service (IIS) to enable the Web-based administration application for the Multimedia software. IIS is an optional component of the Windows Server 2008 Release 2 installation.

Prerequisites

- Install Windows Server 2008 64-bit Release 2.
- If you install Contact Center Multimedia co-resident with Contact Center Manager Administration, you need not perform this procedure. IIS was installed with Contact Center Manager Administration.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Choose Start, Administration Tools, Server Manager . |
| 2 | In the left-hand column of the Server Manager , right-click Roles , select Add Roles . |
| 3 | Review the requirements for the new role, and click Next . |
| 4 | Under Roles , select Web Server (IIS) Support . |
| 5 | If an Add Roles Wizard message box appears, listing features required by Web Server (IIS) Support appears, click Add Required Features . |
| 6 | Click Next . |
| 7 | On the Web Server (IIS) introduction page, click Next . |
| 8 | On the Select Role Services page, under Common HTTP Features , select the following services: <ul style="list-style-type: none"> • Static Content • Default Document • Directory Browsing • HTTP Errors • HTTP Redirection |

Attention: All other services check boxes must be cleared.

- | | |
|---|--|
| 9 | On the Select Role Services page, under Application Development , select the following services: <ul style="list-style-type: none"> • ASP.NET • .NET Extensibility • ASP • ISAPI Extensions • ISAPI Filters |
|---|--|

- Server Side Includes

Attention: All other services check boxes must be cleared.

10 On the **Select Role Services** page, under **Health and Diagnosis**, select the following services:

- HTTP Logging
- Logging Tools
- Request Monitor
- Tracing

Attention: All other services check boxes must be cleared.

11 On the **Select Role Services** page, under **Security**, select all services.

12 On the **Select Role Services** page, under **Performance**, select all services.

13 On the **Select Role Services** page, under **Management Tools**, select the following services:

- IIS Management Console
- IIS Management Scripts and Tools
- Management Service
- All items under IIS 6 Management Compatibility

Attention: All other services check boxes must be cleared.

14 Click **Next**.

15 Review the installation information.

16 Click **Install**.

17 On the **Installation Results** page, click **Close**.

18 Restart the server if required.

--End--

Configuring Data Execution Prevention

Configure the Data Execution Prevention (DEP) hardware and software to perform additional checks on memory that protect the Contact Center Multimedia server against malicious code exploitation.

Procedure steps

Step	Action
1	Log on to Windows as administrator.
2	Choose Start, Control Panel, System and Security .
3	Click System .
4	In the System window, click Advanced system settings .
5	In the System Properties dialog box, click the Advanced tab.
6	Under Performance , click Settings .
7	In the Performance Options dialog box, click the Data Execution Prevention tab.
8	On the Data Execution Prevention tab, select Turn on DEP for essential Windows programs and services only .
9	Click OK .
10	On the System Properties dialog box, click OK .
11	Click OK to restart the computer.

--End--

Installing the Contact Center Multimedia server software

Install the Contact Center Multimedia server software to provide inbound and outbound voice, instant message, e-mail (including voice mail, SMS, faxes and scanned documents), and Web communications contact types in your contact center.

Prerequisites

- Download the most recent Contact Center Multimedia and common component patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).
- Empty all temporary folders on the server. To determine the specific temporary folders for a server, access the DOS prompt and type set. Note the values listed for TEMP and TMP, and delete all files in those locations.

Procedure steps

Step	Action
1	Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .
3	Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click **Accept**. If you are prompted to restart the server, click **Yes** and repeat [step 2](#).

- 4 On the **Welcome** window, click **Next**.
- 5 If you already installed a Contact Center server software application on this server, click **Add a Component**, and then skip to [step 8](#).
- 6 On the **License Agreement** window, read the terms of the agreement.
- 7 Click **I ACCEPT the Terms of the End-User License Agreement**.
- 8 Click **Next**.
- 9 On the **Application Selection** window, from the **Select Switch Type** list, select the PABX type for your system.
- 10 Under **Install Type**, select installation type for your system.
- 11 Under **Multimedia Server (CCMM)**, select **CCMM Primary Server**.
- 12 Click **Next**.
- 13 On the **Product Data Upgrade** window, click **Next**.
- 14 On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
- 15 Click the **Database Destination Drive** tab.
- 16 Under **Install Multimedia Server Database to**, select the drive for the Multimedia Server Database.
- 17 Click the **Product Updates Location** tab.
- 18 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 19 Click **Next**.
The System Readiness Check utility runs on the server.
- 20 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 21 Click **Next**.
- 22 On the **Installation Data** window, type the installation details for the **CCMM - Primary Server** tab.
- 23 Click **Next**.
- 24 On the **Summary** window, review and verify the information.
- 25 Click **Install**.
- 26 After the installation is complete, click **Finish**.
- 27 If prompted, restart the server.

- 28 Disable Java Runtime Environment (JRE) updates. See [Disabling Java Runtime Environment updates \(page 173\)](#).

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

--End--

Variable definitions

Variable	Value
Application Destination	The drive on which the Contact Center Multimedia software application is installed.
Database Destination	The drive on which the Contact Center Multimedia database is installed. You must choose a drive other than the drive on which the application is installed.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
Enable Instant Messaging and Presence	Select the check box to enable Instant messaging and Presence. These two features are supported in an OCS-compliant system such as SIP with Avaya Communication Server 1000.
Manager Server	The name of the server on which the Contact Center Manager Server software is installed.
License Server	The name of the server on which the Contact Center License Manager software is installed.
Telephony Server	The name of the server on which the Communication Control Toolkit software is installed.
Administration Server	The name of the server on which the Contact Center Manager Administration software is installed.
Web Reporting Server Name	The name of the server on which the peer-to-peer instant messages are tracked in the Contact Summary Report (CSR) for a SIP-enabled contact center with OCS. An agent can use the peer-to-peer feature to create instant messages to other agents in the contact center while handling a customer contact. If an agent creates an instant message while idle, the instant message is not tracked.
Web Reporting Port	The port for the optional server on which peer-to-peer reports are stored. The default port number is 9090.
UC Server - Server IP	The Avaya Aura™ Communications Manager server IP address, or depending on your Avaya Aura™ Unified Communications platform configuration, a suitable SIP-proxy endpoint.
Inbound Mail Server (POP3)	The name of the server to on which e-mail messages are received in your network.
Outbound Mail Server (SMTP)	The name of the server from on which e-mail messages are sent. Your inbound and outbound mail servers can have the same name.
Enter Predictive Outbound Configuration	An option to use Predictive Outbound in your contact center, if Predictive Outbound is installed. Select the check box to enable the fields and enter the server information.

Variable	Value
Predictive Server	The name of the Predictive Outbound solutions application server on which the administration software resides, or the CPSE ² server.
Predictive Reporting Server	The name of the Predictive Outbound solutions server that contains the statistics for reporting predictive outbound data, or Portfolio server.
Web Stats Server	The name of the optional Web Stats server that agents and supervisors use to view real-time statistics for call handling, skillset data, and the state information on the Agent Desktop.
Web Stats Port	The port number of the Web Stats server. The default port number is 9086.
Web Communications Server	The name of the server on which the Web Customer Interface is installed if Web communications is licensed in your contact center.

Installing the external Web server software

Install the external Web server software if you are licensed for Web communications and text chat in your contact center, and you have an external Web server on your network. You must install software on your external Web server for the Contact Center Multimedia functionality.

Prerequisites

- Ensure that the Web server meets the minimum requirements for installing Apache Tomcat 5.5.
- Ensure that the Web server has J2SE 5.0.
- Ensure that the Apache Tomcat 5.5 Servlet engine is running on the Web server. For more information about installing Apache Tomcat 5.5, see www.apache.org.
- Install the Contact Center Multimedia server software. For more information, see [Installing the Contact Center Multimedia server software \(page 111\)](#).
- On www.avaya.com/devconnect, under the Products & SDKs page, navigate to the Avaya Aura Contact Center Release 6.1 section, select CCMM Web Communications Toolkit Downloads, and download the "Web Communications SDK and Reference Implementation" package.

Procedure steps

Step	Action
1	Log on to the external Web server using the local administrator user ID and password.

- 2 Double-click **setup.exe**.
- 3 In the **Welcome** dialog box, click **Next**.
- 4 In the **License Agreement** dialog box, read and understand the terms of the license agreement.
- 5 Click **I accept the terms in the license agreement**.
- 6 Click **Next**.
- 7 In the **Installation Configuration** dialog box, in the **CCMM Server Name** box, type the host name of the server on which the Contact Center Multimedia server software is installed.
- 8 In the **SMTP Server Name** box, type the host name of the Standard Mail Transfer Protocol (SMTP) server.
- 9 In the **Configured CCMM Mailbox** box, type the mailbox name configured in the Contact Center Multimedia Administrator application to use for sending HTML forms.
- 10 Click **Next**.
- 11 In the **Destination Folder** dialog box, view the installation location for your software.
- 12 Click **Next**.
- 13 In the **Installation Summary** dialog box, review the installation details.
- 14 Click **Install**.
- 15 After the Apache Tomcat services stop and restart automatically, click **Finish**.

--End--

Variable definitions

Variable	Value
CCMM Server Name	The name of the server on which Contact Center Multimedia software is installed.
SMTP Server Name	The host name of the Simple Mail Transfer Protocol (SMTP) server. The SMTP server is required if you want to configure your Web server to send HTML forms to customers. You can configure the SMTP server name during installation or configure it later. Instructions for configuring the SMTP server name are in <i>Avaya Aura™ Contact Center Server Administration</i> (NN44400-610).
Configured CCMM Mailbox	The name of the mailbox configured in the Contact Center Multimedia Administrator application that you want to use for sending HTML forms to customers. You can configure the CCMM Mailbox during installation or configure it later. Instructions for configuring the CCMM Mailbox are in <i>Avaya Aura™ Contact Center Server Administration</i> (NN44400-610).

Media Application Server software installation

This chapter describes how to install Media Application Server (MAS) software in your SIP-enabled Avaya Aura™ Contact Center.

Media Application Server (MAS) is a software based media processing platform. The Avaya Aura™ Contact Center DVD contains an enhanced version of MAS which contains an additional component—Contact Center Services for MAS (CCSM). CCSM provides the conference, announcement, and dialog services required by SIP-enabled Contact Center.

Prerequisites to Media Application Server installation

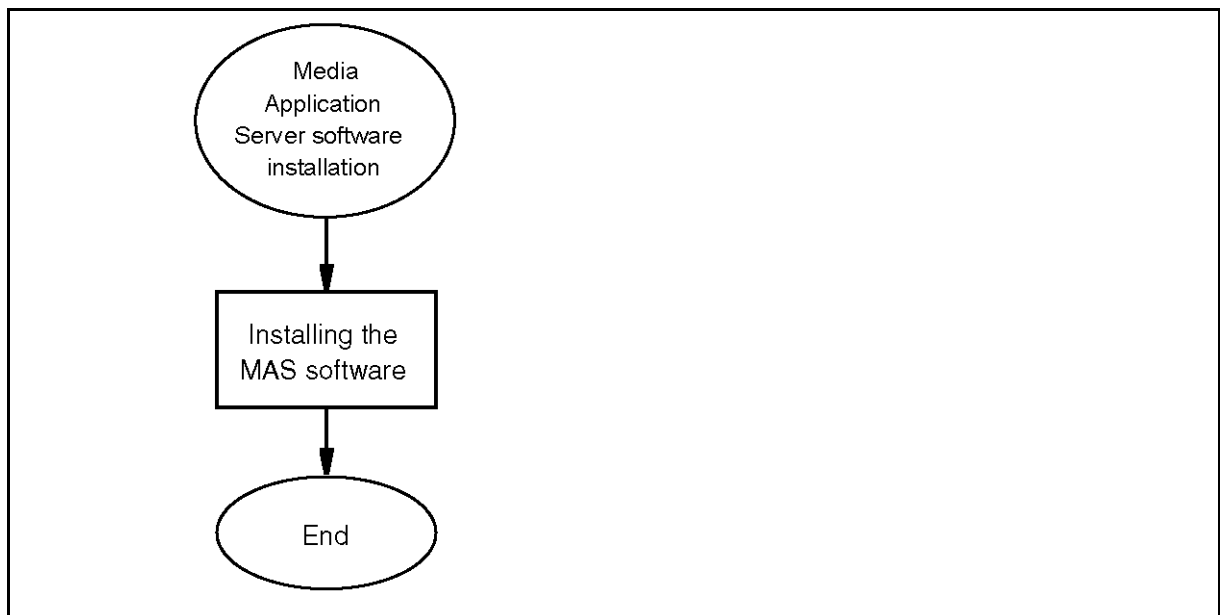
- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Install Contact Center Manager Server, Contact Center License Manager, Server Utility, and Contact Center Manager Administration software in your network.
- Ensure that your new Contact Center license file is available.
- Avaya Aura™ Contact Center Release 6.0/6.1 Media Application Server is supported only on a SIP-enabled Contact Center.
- All UDP Ports must be opened.

Media Application Server installation procedures

This task flow shows you the sequence of procedures you perform to install the Media Application Server software. To link to any task, click [Media Application Server installation navigation \(page 118\)](#).

Media Application Server software installation

Media Application Server installation procedures



Media Application Server installation navigation

- [Installing the Media Application Server software \(page 118\)](#)

Job aid: Installation time

The estimated time to install the Media Application Server software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Media Application Server software

Install the Media Application Server (MAS) software to enable the automatic answering of contacts in a SIP-enabled contact center environment.

Prerequisites

- Download the most recent MAS and common component patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).
- If you are adding MAS as a component on a single server SIP-enabled Contact Center, use the System Control and Monitoring Utility to stop all Contact Center services and use the Windows Services to stop the SymposiumWC and Contact Center Tomcat Instance services, before the install.

Procedure steps

- | Step | Action |
|------|--|
| 1 | Insert the Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |
| 3 | Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 . |
| 4 | On the Welcome window, click Next . |
| 5 | If you previously installed a Contact Center server software application on this server, click Add a Component , and then skip to step 11 . |
| 6 | On the License Agreement window, read the terms of the agreement. |
| 7 | Click I ACCEPT the Terms of the End-User License Agreement . |
| 8 | Click Next . |
| 9 | On the Application Selection window, from the Select Switch Type list, select the PABX type for your system. |
| 10 | Under Install Type , select installation type for your system. |
| 11 | Select Media Application Server . |
| 12 | Click Next . |
| 13 | On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive . |
| 14 | Click the Product Updates Location tab. |
| 15 | Under Select the parent directory where patches are stored , select the drive on which you stored the patches. Click Browse to locate the folder. |
| 16 | Click Next .

<i>The System Readiness Check runs on the server.</i> |
| 17 | If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult <i>Avaya Aura™ Contact Center Planning and Engineering</i> (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable. |
| 18 | Click Next . |
| 19 | In the Summary window, confirm all information is correct. |
| 20 | Click Install . |
| 21 | After the installation is complete, click Finish . |
| 22 | If you are prompted, restart the server. |

Media Application Server software installation

- 23 Disable Java Runtime Environment (JRE) updates. See [Disabling Java Runtime Environment updates \(page 173\)](#).

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

--End--

Agent Desktop client software installation

This chapter describes how to install the Agent Desktop client software on each client computer in your contact center. The Agent Desktop enables agents to handle contacts of all media types enabled in your contact center from the start to the end of a contact. The Agent Desktop is part of the Avaya Aura™ Contact Center solution.

The Agent Desktop client application is installed on the client computers from the server when you access a folder on the server.

Prerequisites for Agent Desktop client software installation

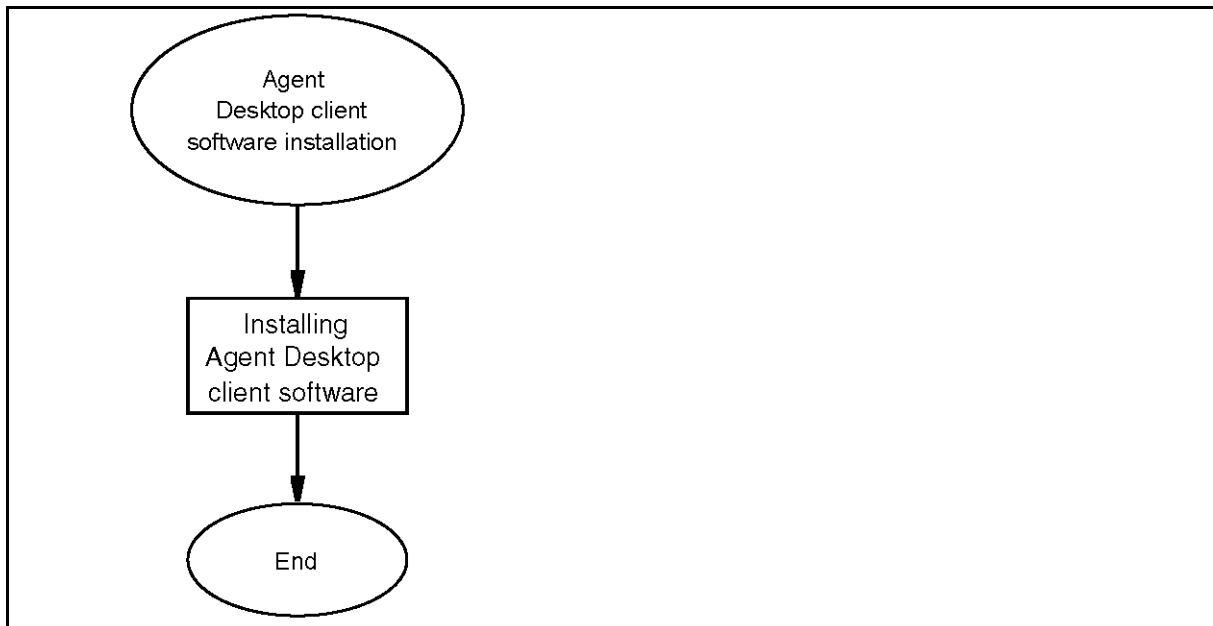
- Install Contact Center Multimedia software (see [Contact Center Multimedia software installation \(page 107\)](#)) or the telephony toolbar on the Communication Control Toolkit server (see [Agent Desktop Telephony Toolbar software installation \(page 79\)](#)).
- You must install Contact Center Manager Administration on a server (see [Contact Center Manager Administration primary server software installation \(page 57\)](#)) before you install Agent Desktop on a client computer.
- Install one of the supported operating systems for Agent Desktop on the client computer. The supported operating systems are as follows:
 - Windows XP with Service Pack 2 (SP2) or later
 - Windows 7
 - Windows Vista
- Ensure that you have administrative privileges on the client computer.
- Install Internet Explorer Release 7.0 or later.

Agent Desktop client software installation procedures

This task flow shows you the sequence of procedures you perform to install the Agent Desktop application on your client. To link to any tasks, click [Agent Desktop client software installation navigation \(page 122\)](#).

Agent Desktop client software installation

Agent Desktop client software installation procedures



Agent Desktop client software installation navigation

- [Installing Agent Desktop client software \(page 123\)](#)

Installing Agent Desktop client software

Install the Agent Desktop client software on each client computer for which an agent logs on to handle contacts using the softphone and multimedia toolbar.

Procedure steps

- | Step | Action |
|------|--|
| 1 | On the client computer, start Internet Explorer. |
| 2 | In the Address box, type http://<servername>/agentdesktop . |
| 3 | On the Agent Desktop page, click Install Prerequisites .
<i>The client downloads the .NET Framework and C++ software from the server and installs the application on the client.</i> |
| 4 | Click Launch AAAD . |
| 5 | On the Application Install - Security Warning message box, click Install . |

--End--

Variable definitions

Variable	Value
servername	The name of the Contact Center Multimedia server or the Communication Control Toolkit server on which the Agent Desktop server software is installed.

Service Creation Environment client software installation

This chapter describes how to install the Service Creation Environment software on a client computer so that you can create flows for routing voice, e-mail, or instant message (IM) contacts in an offline mode to minimize disruption within your Avaya Aura™ Contact Center.

The Service Creation Environment software is also installed on the Contact Center Manager Administration server, and you can use an offline mode to create scripts.

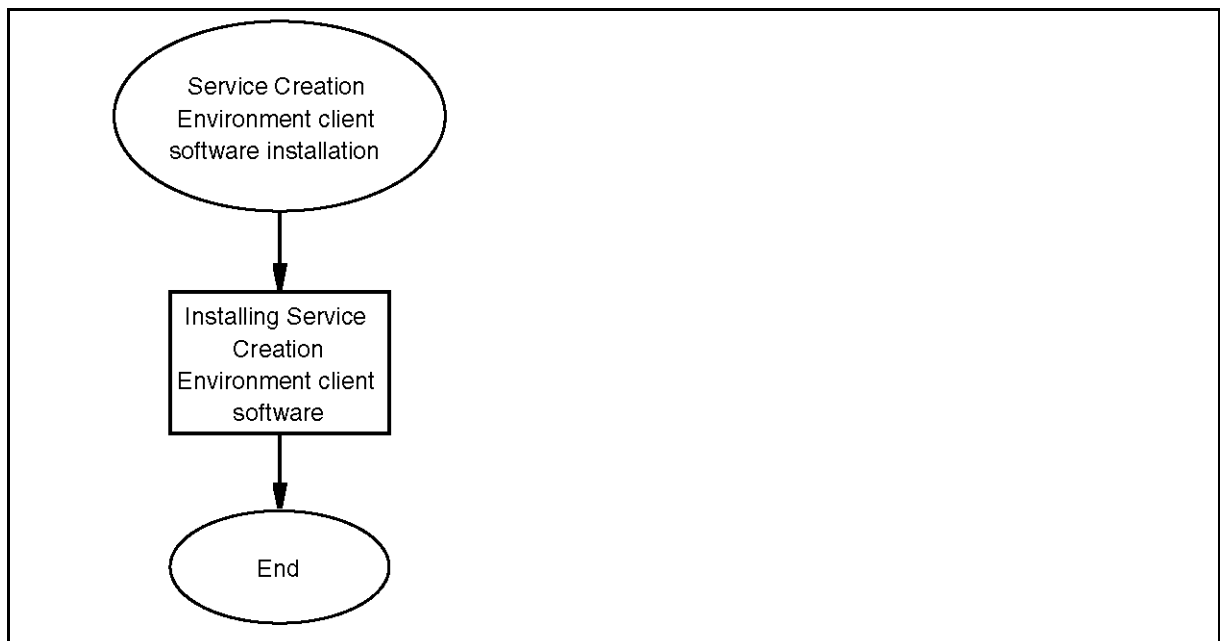
Prerequisites to Service Creation Environment client software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Ensure that your new Contact Center license file is available.

Service Creation Environment client software installation procedures

This task flow shows you the sequence of procedures you perform to install the Service Creation Environment software on a client. To link to any tasks, click [Service Creation Environment client software installation navigation \(page 125\)](#).

Service Creation Environment client software installation procedures



Service Creation Environment client software installation navigation

- [Installing the Service Creation Environment client software \(page 126\)](#)

Installing the Service Creation Environment client software

Install the Service Creation Environment software on a client to allow your administrator to create scripts for routing calls offline. You can then import the new scripts into your contact center when the new scripts are tested and validated.

Prerequisites

- Ensure that you have enough free disk space on the C drive. See *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).

Procedure steps

Step	Action
1	Log on to Contact Center Manager Administration.
2	Select Service Creation, Launch Service Creation . Install any additional software, if a window opens with an installation request. <i>A VBScript window opens.</i>
3	Click OK .
4	Click Run .

Agent Desktop Displays software installation

This chapter describes how to prepare and install the Agent Desktop Displays software on each client in your Avaya Aura™ Contact Center. The Agent Desktop Displays application provides real-time skillset monitoring on agent desktops for supervisors or contact center agents.

Prerequisites to Agent Desktop Displays software installation

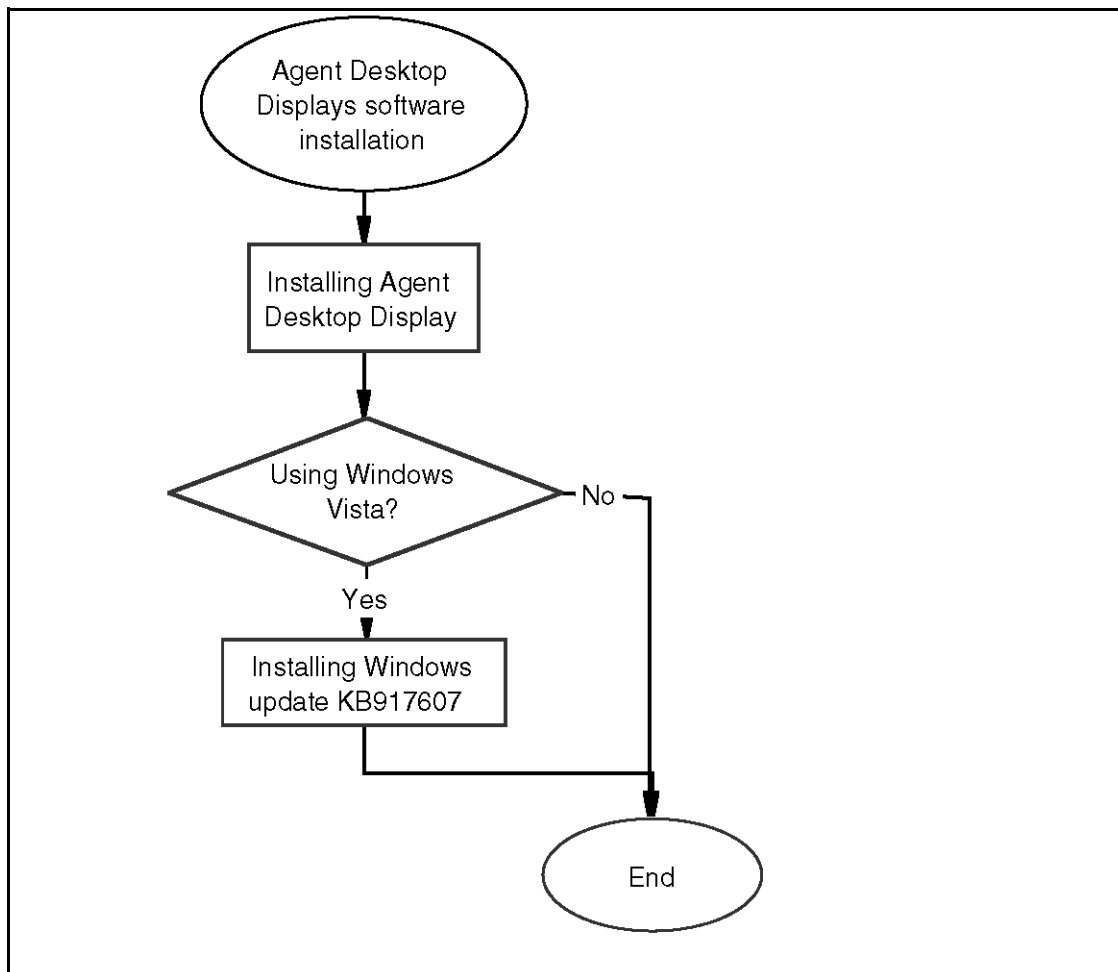
- Install the Contact Center Manager Administration software. See [Installing the Contact Center Manager Administration primary server software \(page 64\)](#).
- Ensure that you have administrative privileges on the client.
- Ensure that one of the supported operating systems for Agent Desktop Displays is installed on the client. The supported operating systems are as follows:
 - Windows XP with Service Pack 2 (SP2) or later
 - Windows Server 2008 Release 2
 - Windows Vista
 - Windows 7

Agent Desktop Displays software installation procedures

This task flow shows you the sequence of procedures you perform to install Agent Desktop Displays software on your client. To link to any procedures, go to [Agent Desktop Displays installation navigation \(page 128\)](#).

Agent Desktop Displays software installation

Agent Desktop Displays software installation procedures



Agent Desktop Displays installation navigation

- [Installing Agent Desktop Display client software \(page 128\)](#)
- [Installing Windows update KB917607 \(page 130\)](#)

Installing Agent Desktop Display client software

Install Agent Desktop Display software to provide skillset monitoring to Contact Center Manager Server agents.

You can install both the standard English version and the multilanguage support version of the Agent Desktop Display client software.

Prerequisites

- Configure a shared network directory on the Contact Center Manager Administration server.
- If you install Agent Desktop Displays on a Contact Center Manager Administration server that uses proxy settings for Internet Explorer, for Agent Desktop Displays to function, ensure that the proxy settings exception list includes the full computer name and IP address of the Contact Center Manager Administration server.
- The IP multicast addresses that you select for Real-time Statistics Multicast (RSM) sending and receiving must be within the 224.0.1.0 to 239.255.255.255 range. Ask your network administrator for acceptable IP multicast addresses for your network.

Procedure steps

- | Step | Action |
|------|--|
| 1 | Log on to the client PC with administrator privileges. |
| 2 | Browse to the shared network directory on the Contact Center Manager Administration server at <install directory>: \\Avaya\\Contact Center\\Manager Administration\\Apps\\ADD\\ADD Client. |
| | OR |
| | Insert the Contact Center DVD into the DVD drive of the client PC and browse to Install Software, CCMA, Agent Desktop Displays Client. |
| 3 | Double-click setup.exe . |
| 4 | In the Agent Desktop Displays - InstallShield Wizard dialog box, from the list, select the language in which to install Agent Desktop Display. |
| 5 | Click OK . |
| 6 | In the Welcome to the InstallShield Wizard for Agent Desktop Displays dialog box, click Next . |
| 7 | In the Customer Information dialog box, in the User name box, type a user name. |
| 8 | In the Organization name box, type your company name. |
| 9 | Select Anyone who uses this computer (all users) . |
| 10 | Click Next . |
| 11 | In the Setup Type dialog box, select Complete to install all Agent Desktop Display components in the default directory. |
| 12 | Click Next . |
| 13 | In the Ready to Install the Program dialog box, click Install . |
| 14 | If a Files in Use dialog box appears, click Retry . |
| 15 | In the Server Configuration dialog box, in Contact Center Manager Administration: Active box, type the IP address or host name of the active Contact Center Manager Administration server. |
| 16 | In the Active Port box, type the port number for the active Contact Center Manager Administration server. |

- 17 In the **Contact Center Manager Server: Active** box, type the IP address or host name of the active Contact Center Manager Server.
- 18 If you install a standby Contact Center Manager Administration server, in the **Contact Center Manager Administration: Standby** box, type the IP address or host name of the standby Contact Center Manager Administration server.
- 19 In the **Standby Port** box, type the port number for the standby Contact Center Manager Administration server.
- 20 If you install a standby Contact Center Manager Server, in the **Contact Center Manager Server: Standby** box, type the IP address or host name of the standby Contact Center Manager Server.
- 21 Select the **Active** Contact Center Manager Administration server check box.
- 22 Select the **Active** Contact Center Manager Server server check box.
- 23 Click **Save**.
- 24 In the **InstallShield Wizard Completed** dialog box, click **Finish**.

--End--

Installing Windows update KB917607

If you install Windows Vista on the client, users cannot view online help for Agent Desktop Displays. To view online help, you must download and install Windows update KB917607 on each client. This update includes the WinHlp32.exe file, which is required to view WinHelp help files, such as Agent Desktop Display online Help.

Prerequisites

- Install Windows Vista.
- Open www.microsoft.com.

Procedure steps

- | Step | Action |
|------|---|
| 1 | On the Microsoft Web site, search for the file KB917607 . |
| 2 | In the list of search results, browse to and click the download link. |
| 3 | Follow the download and install instructions. |

--End--

Avaya Communication Server 1000 Data Extraction Tool installation

This chapter describes how to install the Avaya Aura™ Contact Center Avaya Communication Server 1000 Data Extraction Tool software. The CS 1000 Data Extraction Tool is a software application that extracts information about resources such as Terminal Numbers (TNs), voice ports, Controlled Directory Numbers (CDNs), Interactive Voice Response Automatic Call Distribution DN (IVR ACD-DN), and routes from an Avaya Communication Server 1000 PABX. The tool saves this information in Excel spreadsheets.

You can install the Avaya Communication Server 1000 Data Extraction Tool on a client PC or on the Contact Center Manager Administration server.

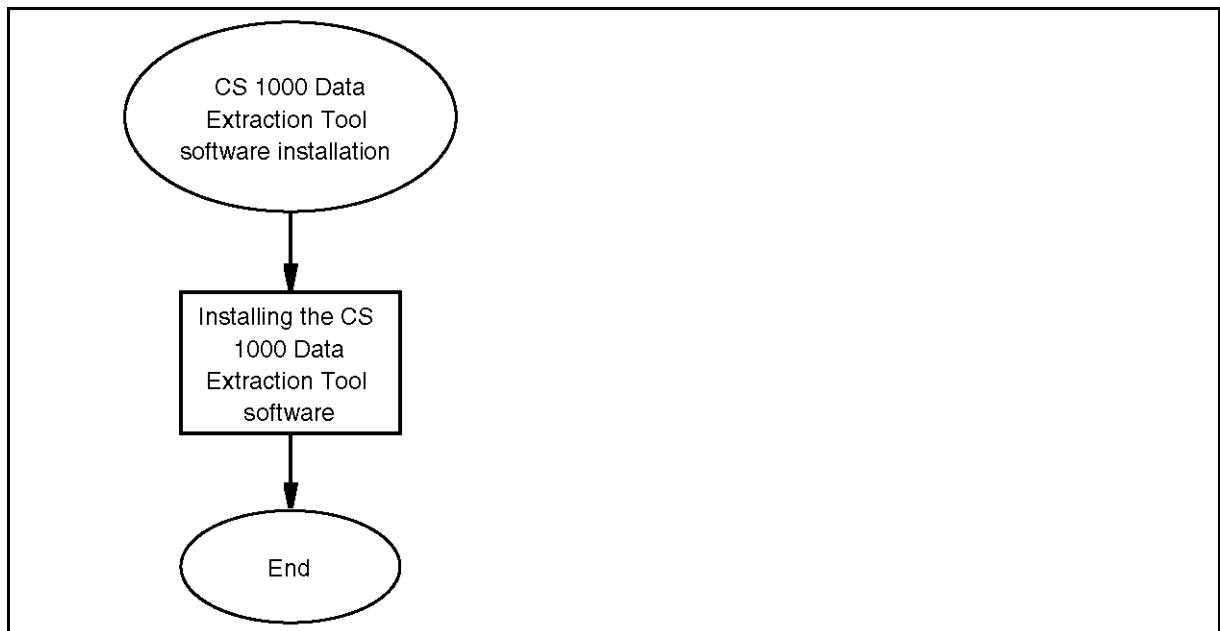
Prerequisites to Avaya Communication Server 1000 Data Extraction Tool software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Ensure that your client PC or server meet all requirements. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Install Microsoft Excel 97 or later on the PC or server.

Avaya Communication Server 1000 Data Extraction Tool software installation procedures

This task flow shows you the sequence of procedures you perform to install the Avaya Communication Server 1000 Data Extraction Tool software on a client. To link to any tasks, click [Avaya Communication Server 1000 Data Extraction Tool software installation navigation \(page 132\)](#).

Avaya Communication Server 1000 Data Extraction Tool software installation procedures



Avaya Communication Server 1000 Data Extraction Tool software installation navigation

- [Installing the Avaya Communication Server 1000 Data Extraction Tool software \(page 132\)](#)

Job aid: Installation time

The estimated time to install the Avaya Communication Server 1000 Data Extraction Tool software is 15 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Avaya Communication Server 1000 Data Extraction Tool software

Install the Avaya Communication Server 1000 Data Extraction Tool to allow an administrator to extract information about resources such as Terminal Numbers (TNs), voice ports, Controlled Directory Numbers (CDNs), Interactive Voice Response Automatic Call Distribution DN (IVR ACD-DN), and routes from the Avaya Communication Server 1000.

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Contact Center DVD into the DVD drive and browse to Install Software, CCMA, CS 1000 Data Extraction Tool . |
| 2 | Double-click CS1000 Data Extraction Tool.msi . |
| 3 | On the Welcome dialog box, click Next . |
| 4 | On the Destination Folder dialog box, click Next to accept the default folder for the Avaya Communication Server 1000 Data Extraction Tool. |

OR

Click **Change** to choose a new location.

- | | |
|---|--|
| 5 | On the Ready to Install the Program dialog box, click Install . |
| 6 | On the InstallShield Wizard Completed dialog box, click Finish . |

--End--

Contact Center Manager Server standby software installation

This chapter describes how to install Avaya Aura™ Contact Center server software on the High Availability standby Contact Center Manager Server (CCMS). This feature is available only when you have a High Availability Standby Server license.

You can configure this CCMS server as a Standby CCMS to take over contact processing and become the active CCMS if the active CCMS fails. This standby CCMS provides High Availability redundancy and resiliency.

You can configure this CCMS server as a CCMS Geographic Redundancy node. The CCMS Geographic Redundancy node shadows the active CCMS. Geographic Redundancy nodes do not automatically take over if the active system fails.

The software installation configuration on the standby server must match the configuration of your primary server. If you installed Contact Center Manager Server and License Manager on your active server, then you must install these two software applications in the same location on your standby server. If the active server is co-resident with CCMS, Communication Control Toolkit (CCT), and Contact Center Manager Administration (CCMA), you must install CCMS, CCT, and CCMA on the standby server. All applications must be at the same patch level.

The standby and active servers must be at the same patch level and have the same hard disk drive partitions.

Prerequisites to CCMS standby software installation

- Prepare your server for Contact Center software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required for Contact Center. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210). This standby CCMS server must be partitioned the same as the active CCMS server.
- Understand the configuration of the primary server software.

Attention: You must install the standby applications exactly the same way as the active applications. The standby and active servers must have the same patch level and the same hard disk drive partitions.

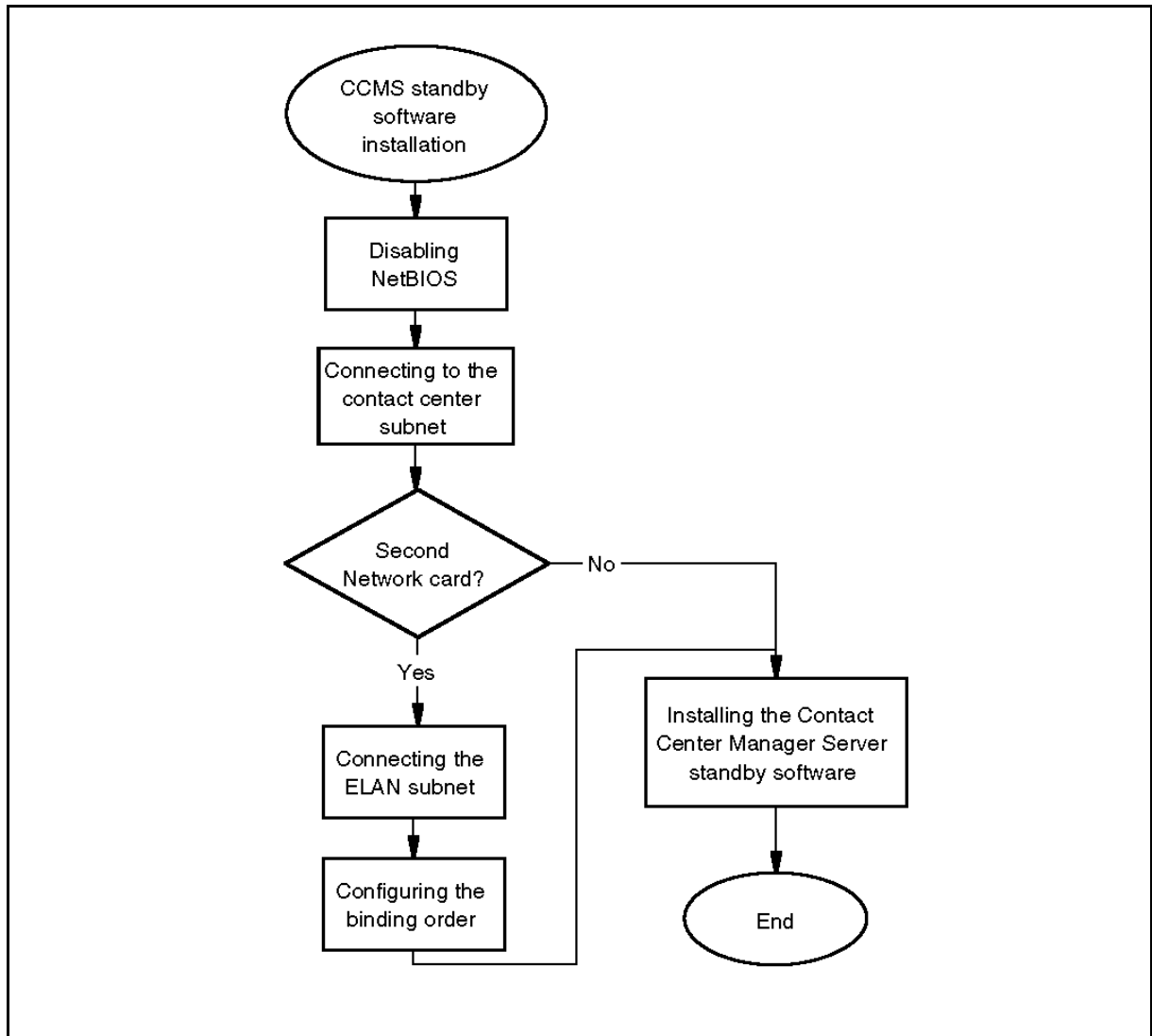
- Ensure you have a Standby Server license for CCMS.
- Install and configure a remote access tool such as LogMeIn Rescue (www.logmein.com) or enable the Microsoft Remote Desktop tool. See [Enabling Microsoft Remote Desktop connection \(page 33\)](#).

Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install CCMS.

CCMS standby software installation procedures

This task flow shows you the sequence of procedures you perform to install Contact Center Manager Server software on your server. To link to any tasks, click [CCMS standby software installation navigation \(page 136\)](#).

CCMS standby software installation procedures



CCMS standby software installation navigation

- [Disabling NetBIOS \(page 37\)](#)
- [Connecting to the contact center subnet \(page 38\)](#)

- [Connecting the Embedded LAN subnet \(page 38\)](#)
- [Configuring the binding order \(page 39\)](#)
- [Installing the Contact Center Manager Server standby software \(page 137\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Manager Server software is 90 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Contact Center Manager Server standby software

Install the Contact Center Manager Server (CCMS) software on a standby server. You can configure this redundant CCMS to take over contact processing and become the active CCMS if the primary CCMS fails; or, you can configure the CCMS to only shadow the active CCMS and to be a redundant CCMS.

Prerequisites

- Ensure you are licensed for a redundant Contact Center Manager Server.
- Install the primary Contact Center Manager Server. See [Contact Center Manager Server software installation \(page 35\)](#).
- If you install Contact Center Manager Server software with an AML Avaya Communication Server 1000 PABX, ensure the PABX is configured. See *Avaya Aura™ Contact Center Configuration – Avaya CS1000 Integration* (NN44400-512).
- If you install Contact Center Manager Server software with a SIP Avaya Communication Server 1000 PABX, ensure the PABX is configured. See *Avaya Aura™ Contact Center SIP Commissioning* (NN44400-511).
- If you install Contact Center Manager Server software with an Avaya Aura™ Unified Communications platform, ensure the platform is configured. See *Avaya Aura™ Contact Center Configuration – Avaya Aura™ Unified Communications Platform Integration* (NN44400-521).
- Download the most recent Contact Center Manager Server patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |

- 3 Click **Install** to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.
If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click **Accept**. If you are prompted to restart the server, click **Yes** and repeat [step 2](#).
- 4 On the **Welcome** window, click **Next**.
- 5 On the **License Agreement** window, read the terms of the agreement.
- 6 Click **I ACCEPT the Terms of the End-User License Agreement**.
- 7 Click **Next**.
- 8 On the **Application Selection** window, from the **Select Switch Type** list, select the PABX type for your system.
- 9 Under **Install Type**, select installation type for your system.
- 10 Under **Contact Center Manager Server (CCMS)**, select **Nodal Server**.
In addition to installing Contact Center Manager Server, this selection installs the Open Queue Open Interface, the Open Networking Open Interface and Multiplicity which you can license and configure later.
- 11 Click **Next**.
- 12 On the **Product Data Upgrade** window, click **Next**.
- 13 On the **Installation Destination** window, on the **Application Destination Drive** tab, accept the default location for the **Application Destination Drive**.
- 14 Click the **Database Destination Drive** tab.
- 15 Under **Install Manager Server database to**, select the drive for the Contact Center Manager Server database.
- 16 Click the **Product Updates Location** tab.
- 17 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 18 Click **Next**.
The System Readiness Check utility runs on the server.
- 19 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.
You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 20 Click **Next**.
- 21 On the **Installation Data** window, type the installation details for each tab.
If Communication Control Toolkit or Contact Center Multimedia are part of the solution, you must select the **Open Queue** check box on the **Licensing** tab and complete the details on the corresponding **CCT Server** tab.
- 22 Click **Next**.

- 23 On the **Summary** window, review and verify the information.
- 24 Click **Install**.
- 25 After the installation is complete, click **Finish**.
- 26 If you are prompted, restart the server.

--End--

Procedure job aid

The following table provides a list of common Contact Center Manager Server variable definitions.

Variable	Value
Application destination drive	The location to install the Contact Center Manager Server software. You must install the CCMS software to D:\Avaya\Contact Center.
Database destination drive	The location to install the Contact Center Manager Server Caché database. Install the CCMS database on the database destination drive in the Avaya\Contact Center\Database\CCMS folder.
Product updates location	The parent directory of the software patches.
Customer Name	The designated person in charge of the Contact Center Manager Server software.
Company Name	The name of the company using the Contact Center Manager Server software.
Site Name	The site name for the Contact Center Manager Server. The site name must not contain spaces or non-alphabetical characters except hyphen (-) and underscore (_). The first character must be a letter. The site name must be unique and can consist of 6 to 15 characters.
RSM IP Address	The RSM IP Address of the server to associate with sending real-time data. The IP address must be from 224.0.1.0 to 239.255.255.255. The default is 230.0.0.1.
Contact Center Server Subnet IP Address	The IP Address of the subnet that connects the Contact Center servers (Contact Center Manager Server, Network Control Center, Contact Center Manager Administration, Contact Center Multimedia, and (optionally) Avaya CallPilot™) are connected.
(1 of 2)	

Variable	Value
ELAN Subnet IP Address	The IP Address of the embedded local area network, a dedicated Ethernet LAN that connects the Contact Center Manager Server and the PABX. You must select the check box for the ELAN subnet IP Address if you use an ELAN subnet.
Select Switch Type	Type of PABX you use in your contact center to handle telephone contacts. You can choose from the following: • AML Avaya Communication Server 1000 • SIP Avaya Communication Server 1000 • SIP Avaya Aura™ Unified Communications platform • No Switch Configured. Select this option when installing Avaya Aura™ Contact Center for multimedia only—Non Voice Multimedia
Install Type	The type of installation, you can choose from the following: • Multimedia and Voice. This type of installation supports voice and multimedia contact types. • Non Voice Multimedia. This type of installation supports only multimedia contact types.
(2 of 2)	

The following table provides a list of AML Avaya Communication Server 1000-specific variables.

Variable	Value
Switch Name	The name of the AML Avaya Communication Server 1000. Valid characters for PABX names are A–Z, a–z, 0–9, underscore (_), and period (.). Names must begin with an alphabetical character and cannot contain spaces. The last character must not be an underscore or a period. Names must not exceed 80 characters in length.
Switch IP Address	The IP address of the PABX.
Alternative Switch IP Address	The IP address of the PABX, if there is more than one IP address registered for the PABX.
Switch Customer Number	The customer number for the PABX.
(1 of 2)	

Variable	Value
Voice Connection Type	The method used to connect to the PABX. If you use Avaya CallPilot™, beside Voice Connection Type, select TCP and specify the ELAN subnet IP address of the Avaya CallPilot™ server and then configure the CallPilot Server Port to 10008.
CallPilot IP Address	The IP address of the primary Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.
CallPilot Port	The port number of the primary Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.
CallPilot Alternative IP Address	The IP address of the alternate Avaya CallPilot™ voice connection for the Avaya Communication Server 1000 PABX.
CallPilot Alternative Port	The port number of the alternate Avaya CallPilot™ voice connection type to the Contact Center Manager Server for an Avaya Communication Server 1000 PABX.
(2 of 2)	

The following table provides a list of configuration variables specific to the SIP Avaya Communication Server 1000.

Variable	Value
Local SIP Subscriber	Information about the environment of the SIP-enabled contact center, and how to identify the server within its network.
• Contact Center Name	The registration user name on the registration proxy. Use a suitable user name following the standards in your system.
• Domain	Associated domain name for the SIP-enabled contact center.
• Password	Password for the registration user name.
• Network Transport	The SIP Communication protocol accepted by the system for incoming calls. TCP/UDP Port default is 5060 TLS Port default is 5061
SIP Server Type	Type of SIP proxy for the contact center integration
MS_Locale	Locale (including language and dialects) of the system environment.
(1 of 2)	

Variable	Value
SIP Proxy Server	Information about the server that provides support for SIP Computer Telephony Integration so that Agent Desktop can acquire and control agent telephones for TR87. Avaya recommends that you use the conventions used within your environment (for example, use the conventions associated with your Network Routing Service on Avaya Communication Server 1000.
• IP Address	The IP address of the SIP Proxy Server.
• Port	The server listening port. The default port is 5060.
• Transport	The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for Avaya Communication Server 1000 and TLS for an Avaya Aura™ Unified Communications platform.
SIP IM Proxy Server	Information about the server that supports the deployment of Instant Message over SIP. IM is only available on an Avaya Communication Server 1000 platform.
• IP Address	The IP address of the SIP IM Proxy Server.
• Port	The server listening port. The default port is 5060.
• Transport	The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for Avaya Communication Server 1000 and TLS for an Avaya Aura™ Unified Communications platform.
Presence server	The server that monitors and advises clients of the activity status. The IM and presence features are only supported in an OCS-supported environment. These features are not supported on an Avaya Aura™ Unified Communications platform.
SIP Registration	Registration of Route Points as endpoints on your Proxy Server. This is not required for this release.
SIP CTI Proxy Server	Information about the server that provides support for outbound calls, such as routing a call to an agent telephone. Avaya recommends that you use the conventions within your existing environment. For example, use the same settings as the current settings if you are using an Network Routing Server within an Avaya Communication Server 1000 environment.
• IP	The IP address of the SIP CTI Proxy Server.
• Port	The server listening port. The default port is 5060.
• Transport	The SIP Communication protocol accepted by the system for incoming calls. Avaya recommends that you use TCP/IP for Avaya Communication Server 1000 and TLS for an Avaya Aura™ Unified Communications platform.
(2 of 2)	

The following table provides a list of variables specific to the Licensing tab.

Variable	Value
CCMS Package	The installation package indicates the licenses that you have purchased.
Optional Packages	You must choose the package you have purchased. Some packaged features include the following: • Universal Networking—Use Network Skill-Based Routing to route voice and multimedia contacts between networked sites in a mixed PABX environment. • Open Queue—Use Contact Center Multimedia to route multimedia contacts to agents by using the existing scripting and skillset routing features available for calls. You must install and license the Open Queue feature for Agent Desktop. • Multiplicity—Use Multiplicity to enable an agent to manage multiple contacts simultaneously by configuring a Multiplicity Presentation Class (MPC) in CCMA and assigning it to an agent. Instant Messaging is available only on SIP Avaya Communication Server 1000.
Primary License Manager IP Address	The IP address of the License Manager server. If the Contact Center License Manager co-resides on the Contact Center Manager Server, type the IP address for the Contact Center Manager Server.
Primary License Port	The number of the communication port opened between the License Manager and the Contact Center Manager Server. The default port number is 3998 when you use only one License Manager.
Secondary License Manager IP Address	The IP address of the secondary License Manager server. The secondary License Manager server is used only in a corporate licensed environment.
Serial Number	The serial number for the Contact Center License Manager. You must obtain the serial number from your distributor.

The following table provides a list of CCT-specific variables.

Contact Center Manager Server standby software installation

Variable	Value
CCT Host Name	The host name of the remote Communication Control Toolkit server (applicable for configurations where Communication Control Toolkit is not co-resident with Contact Center Manager Server.
CCT Port A1, A2, B1, B2	Accept the default CCT Port numbers unless you must change them for security purposes.
Use a Remote CCT Server	Select this check box if the Communication Control Toolkit server does not co-reside with the Contact Center Manager Server.

CCMA standby pre-install configuration

This chapter describes how to configure the windows accounts used by Contact Center Manager Administration (CCMA) High Availability replication in your Avaya Aura™ Contact Center solution.

Contact Center Manager Administration (CCMA) redundancy is provided by the addition of a replication or standby CCMA server. CCMA stores configuration data in Microsoft Active Directory - Lightweight Directory Services (AD\LDs). The standby CCMA replicates the AD\LDs on the primary CCMA. The standby CCMA uses AD\LDs replication to maintain a copy of the primary CCMA configuration data. If the active CCMA fails, no loss of configuration data occurs because the standby CCMA replicates the data stored in AD\LDs.

The primary active CCMA and the standby replication CCMA must both be in the same Windows workgroup or domain for AD\LDs replication to work. AD\LDs replication uses a common windows account, used by both CCMA servers, to copy or replicate configuration data from the primary CCMA AD\LDs to the standby CCMA AD\LDs.

If both CCMA servers are in domain, perform the following steps to create the AD\LDs Replication account:

- Ask your Systems Administrator to create a domain user account for use by AD\LDs Replication, for example "adreplication".
- Assign this domain user account to the local Administrators and local Replicator groups on both CCMA servers.
- Assign the "Log On as a Service" permission to this domain user account on both CCMA servers.

If both CCMA servers are in a work group, perform the following steps to create the AD\LDs Replication account:

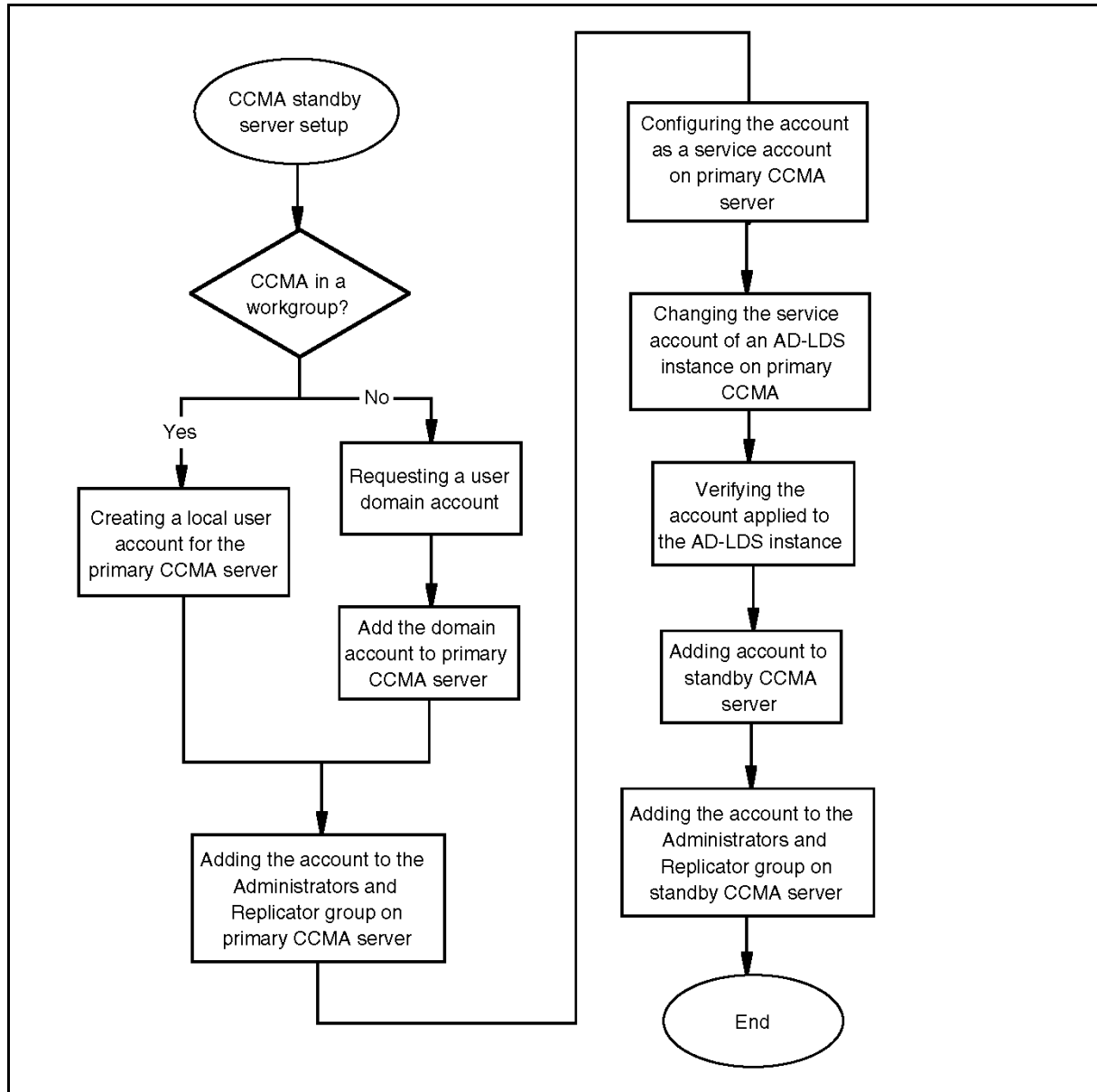
- Create a local user account on both CCMA Servers using the same name, for example "adamreplication". Ensure both accounts have the same name and password.
- Assign this local user account to the local Administrators and local Replicator groups on both CCMA Servers.
- Add the "Log On as a Service" permission to this user on both CCMA Servers.

If the active server is co-resident with Contact Center Manager Server (CCMS), Communication Control Toolkit (CCT), and CCMA, you must install CCMS, CCT, and CCMA on the standby server. All applications must be on the same patch level.

CCMA standby pre-install configuration procedures

This task flow shows the sequence of procedures to perform to prepare for the installation of a Contact Center Manager Administration standby server. To link to any task, go to [CCMA standby pre-installation configuration navigation \(page 146\)](#).

CCMA standby pre-installation configuration procedures



CCMA standby pre-installation configuration navigation

- [Saving managed, active and standby server names and IP addresses \(page 147\)](#)
- [Creating a user account for AD\LDs Replication \(page 148\)](#)

- Adding the AD\LDs Replication account to the primary administrators and replicator group (page 149)
- Configuring the AD\LDs Replication account as a service account (page 150)
- Changing the service account of the primary CCMA AD\LDs instance (page 150)
- Verifying the AD\LDs Replication account is applied to the AD\LDs instance (page 151)
- Creating the AD\LDs Replication account on the standby CCMA (page 152)
- Adding the AD\LDs Replication account to the standby administrators and replicator group (page 153)

Job aid: Installation time

The estimated time to perform the pre-installation setup is 1 hour. This installation time is based on installing a server that meets the minimum specification for this function.

Saving managed, active and standby server names and IP addresses

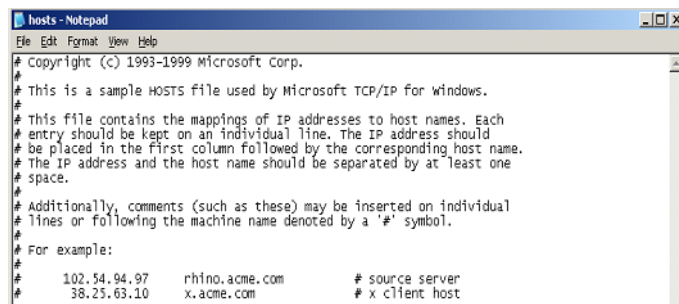
To ensure that no WINS issue exists with regard to the managed, active, and standby servers IP addresses, save these details to the hosts file.

Perform this procedure on the Active and Standby Servers.

Procedure steps

Step	Action
1	Open Windows Explorer.
2	Go to the folder C:\Windows\system32\drivers\etc.
3	Right-click the hosts file, select Open With and choose Notepad .
4	Add the following to the hosts file: CLAN Managed IP address and the server name to the hosts file. • CLAN Managed IP address and the server name • Active and Standby Server name and IP addresses

Attention: The Managed Server name can be a full name or netbios server name as shown in the following example.



```
# Copyright (c) 1993-1999 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
# 102.54.94.97 rhino.acme.com # source server
# 38.25.63.10 x.acme.com # x client host
```

--End--

Creating a user account for AD\LDS Replication

Create a user account on the primary Contact Center Manager Administration server. This user account is for AD\LDS Replication. This procedure is necessary when you install both CCMA servers in a work group. If this primary CCMA server is in a domain this user account should be imported from a domain account setup by your System Administrator.

For this procedure, the name of the local user account is adamreplication. You can choose another name for the account.

Prerequisites

- You plan to use AD\LDS replication in your contact center to create a live backup for your Contact Center Manager Administration server.
- Log on to the primary Contact Center Manager Administration server.

Procedure steps

- | Step | Action |
|------|--|
| 1 | On the Contact Center Manager Administration server, click Start, Administrative Tools, Computer Management . |
| 2 | In the Computer Management window, expand Local Users and Groups . |
| 3 | Right-click Users , and click New User . |
| 4 | In the New User dialog box, in the User name box, type adamreplication . |
| 5 | In the Password box, type a password. |
| 6 | In the Confirm password box, retype the password. |
| 7 | Clear the User must change password at next logon check box. |
| 8 | Click Create . |
| 9 | Click Close to close the New User dialog box. |

--End--

Adding the AD\LDs Replication account to the primary administrators and replicator group

Add the AD\LDs Replication account to the local Administrators and replicator group on the primary CCMA server.

For this procedure, the name of the AD\LDs Replication account is adamreplication. You can choose another name for the account.

Prerequisites

- Create a local user account on the primary Contact Center Manager Administration server. See [Creating a user account for AD\LDs Replication \(page 148\)](#).
- Log on to the primary Contact Center Manager Administration server.

Procedure steps

- | Step | Action |
|------|--|
| 1 | On the Contact Center Manager Administration server, click Start, Administrative Tools, Computer Management . |
| 2 | In the Computer Management window, expand Local Users and Groups . |
| 3 | Click the Users folder. |
| 4 | In the right-pane, double-click adamreplication . |
| 5 | In the adamreplication Properties dialog box, click the Member Of tab. |
| 6 | Click Add . |
| 7 | In the Select Groups dialog box, in the Enter the object names to select box, type Administrators . |
| 8 | Click OK . |
| 9 | In the adamreplication Properties dialog box, click Add . |
| 10 | In the Select Groups dialog box, in the Enter the object names to select box, type Replicator . |
| 11 | Click OK . |
| 12 | In the adamreplication Properties dialog box, click Apply to save your changes. |
| 13 | Click OK to close the adamreplication Properties dialog box. |

--End--

Configuring the AD\LDs Replication account as a service account

Configure the AD\LDs Replication account as a service account on the primary Contact Center Manager Administration server. This account is the AD\LDs Replication service account.

For this procedure, the name of the AD\LDs Replication account is adamreplication. You can choose another name for the account.

Prerequisites

- Add the local user account to the local Administrators and replicator group on the primary Contact Center Manager Administration server. See [Adding the AD\LDs Replication account to the primary administrators and replicator group \(page 149\)](#).
- Log on to the primary Contact Center Manager Administration server.

Procedure steps

- | Step | Action |
|------|--|
| 1 | Click Start, Administrative Tools, Local Security Policy , |
| 2 | In the Local Security Settings window, in the left pane, expand the Local Policies folder. |
| 3 | Click the User Rights Assignment folder. |
| 4 | In the right pane, double-click Log on as a service . |
| 5 | In the Log on as a service Properties dialog box, click Add User or Group . |
| 6 | In the Select Users, Computers, or Groups dialog box, type the account name (adamreplication). |
| 7 | Click OK .
<i>The account appears in the Log on as a service list.</i> |
| 8 | Click Apply to save your changes. |
| 9 | Click OK to close the Log on as a service Properties dialog box. |

--End--

Changing the service account of the primary CCMA AD\LDs instance

Change the service account of an AD\LDs instance on the primary Contact Center Manager Administration server. This account is the AD\LDs Replication service account.

For this procedure, the name of the AD\LDs Replication account is adamreplication. You can choose another name for the account.

Prerequisites

- Configure the local account as a service account on the primary Contact Center Manager Administration server. See [Configuring the AD\LDs Replication account as a service account \(page 150\)](#).
- Log on to the primary Contact Center Manager Administration server.

Procedure steps

- | Step | Action |
|------|---|
| 1 | On the Contact Center Manager Administration server, select Start, All Programs, Run . Type cmd and hit Enter . |
| 2 | At the command prompt, type net stop <instance name> where <instance name> represents the service name of the ADAM instance on which to change the service account (tmacslab.com/domainreplication). The default instance name is SymposiumWC. |
| 3 | At the command prompt, type dsdbutil . |
| 4 | At the dsdbutil prompt, type activate instance <instancename> ; <instancename> represents the service name of the AD\LDs instance on which to change the service account (adreplication). The default instancename is SymposiumWC. |
| 5 | At the dsdbutil prompt, type change service account <account name password> ; <account name password>, represents the name and password of the account to use as the AD\LDs service account. |
| 6 | At the dsdbutil prompt, type quit to exit dsdbutil. |
| 7 | At the command prompt, type net start <instance name> to restart the AD\LDs instance. |

--End--

Verifying the AD\LDs Replication account is applied to the AD\LDs instance

Verify the account applied to the AD\LDs instance to ensure the change to the service account is successful on the primary CCMA server.

For this procedure, the name of the AD\LDs Replication account is adamreplication. You can choose another name for the account.

Prerequisites

- Change the service account of an AD\LDs instance on the primary Contact Center Manager Administration server. See [Changing the service account of the primary CCMA AD\LDs instance \(page 150\)](#).
- Log on to the primary Contact Center Manager Administration server.

Procedure steps

Step	Action
1	Click Start, Administrative Tools, Services .
2	In the right pane, right-click SymposiumWC and click Properties .
3	In the SymposiumWC Properties dialog box, click the Logon tab.
4	Confirm that the entry in the This account box equals the local user account (adamreplication).

--End--

Creating the AD\LDs Replication account on the standby CCMA

Create an account on the standby Contact Center Manager Administration server. This account is the AD\LDs Replication service account. This procedure is necessary when you install the standby CCMA in a work group. This account must have the same name and password as the AD\LDs Replication account on the primary CCMA server. If this standby CCMA server is in a domain, then you must import this user account from a domain account configured by your System Administrator.

For this procedure, the name of the AD\LDs Replication account is adamreplication. You can choose another name for the account.

Prerequisites

- Verify the AD\LDs accounts on the primary Contact Center Manager Administration server. See [Verifying the AD\LDs Replication account is applied to the AD\LDs instance \(page 151\)](#).
- Install the Contact Center Manager Administration server on a standby server for replication. See *Avaya Aura™ Contact Center Installation* (NN44400-311).
- Know the user account details (user name and password) on the primary server. The details for the account on the standby server must match the details for the account on the primary server.
- Log on to the standby Contact Center Manager Administration server.

Procedure steps

Step	Action
1	On the Contact Center Manager Administration server, click Start, Administrative Tools, Computer Management .
2	In the Computer Management window, expand Local Users and Groups .
3	Right-click Users , and click New User .
4	In the New User dialog box, in the User name box, type adreplication .

- 5 In the **Password** box, type a password.
- 6 In the **Confirm password** box, retype the password.
- 7 Clear the **User must change password at next logon** check box.
- 8 Click **Create**.
- 9 Click **Close** to close the **New User** dialog box.

--End--

Adding the AD\LDs Replication account to the standby administrators and replicator group

Add the local user account or the domain account to the local Administrators and replicator group on the standby Contact Center Manager Administration server. This account is the AD\LDs Replication service account.

For this procedure, the name of the AD\LDs Replication account is adamreplication. You can choose another name for the account.

Prerequisites

- Add the primary Contact Center Manager Administration server to a work group.
- Log on to the standby Contact Center Manager Administration server.

Procedure steps

- | Step | Action |
|------|--|
| 1 | On the Contact Center Manager Administration standby server, click Start, Administrative Tools, Computer Management . |
| 2 | In the Computer Management window, expand Local Users and Groups . |
| 3 | Click the Users folder. |
| 4 | In the right pane, double-click adreplication (the name of the local user account). |
| 5 | In the adreplication Properties dialog box, click the Member of tab. |
| 6 | Click Add . |
| 7 | In the Select Groups dialog box, in the Enter the object names to select box, type Administrators . |
| 8 | Click OK . |
| 9 | In the adreplication Properties dialog box, click Add . |
| 10 | In the Select Groups dialog box, in the Enter the object names to select box, type Replicator . |
| 11 | Click OK . |

CCMA standby pre-install configuration

- 12 In the **adreplication Properties** dialog box, click **Apply** to save your changes.
- 13 Click **OK** to close the **adreplication Properties** dialog box.

--End--

Contact Center Manager Administration standby software installation

This chapter describes how to install High Availability standby Contact Center Manager Administration (CCMA) software. CCMA stores configuration information in Microsoft Active Directory - Lightweight Directory Services (AD-LDS). Install the standby CCMA to replicate the primary CCMA AD-LDS in your Avaya Aura™ Contact Center solution.

This standby CCMA can become the active CCMA if the primary CCMA fails. This standby CCMA provides redundancy and resiliency. No automatic CCMA switchover occurs. If the active CCMA fails, the Contact Center starts using the standby CCMA.

If the active server is co-resident with Contact Center Manager Server (CCMS), Communication Control Toolkit (CCT), and CCMA, you must install CCMS, CCT, and CCMA on the standby server.

The standby and active servers must have the same patch level and the same hard disk drive partitions.

Prerequisites to CCMA standby software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Ensure that you have a Standby Server license for this standby CCMA server.
- Understand the configuration of the primary server software in your contact center.

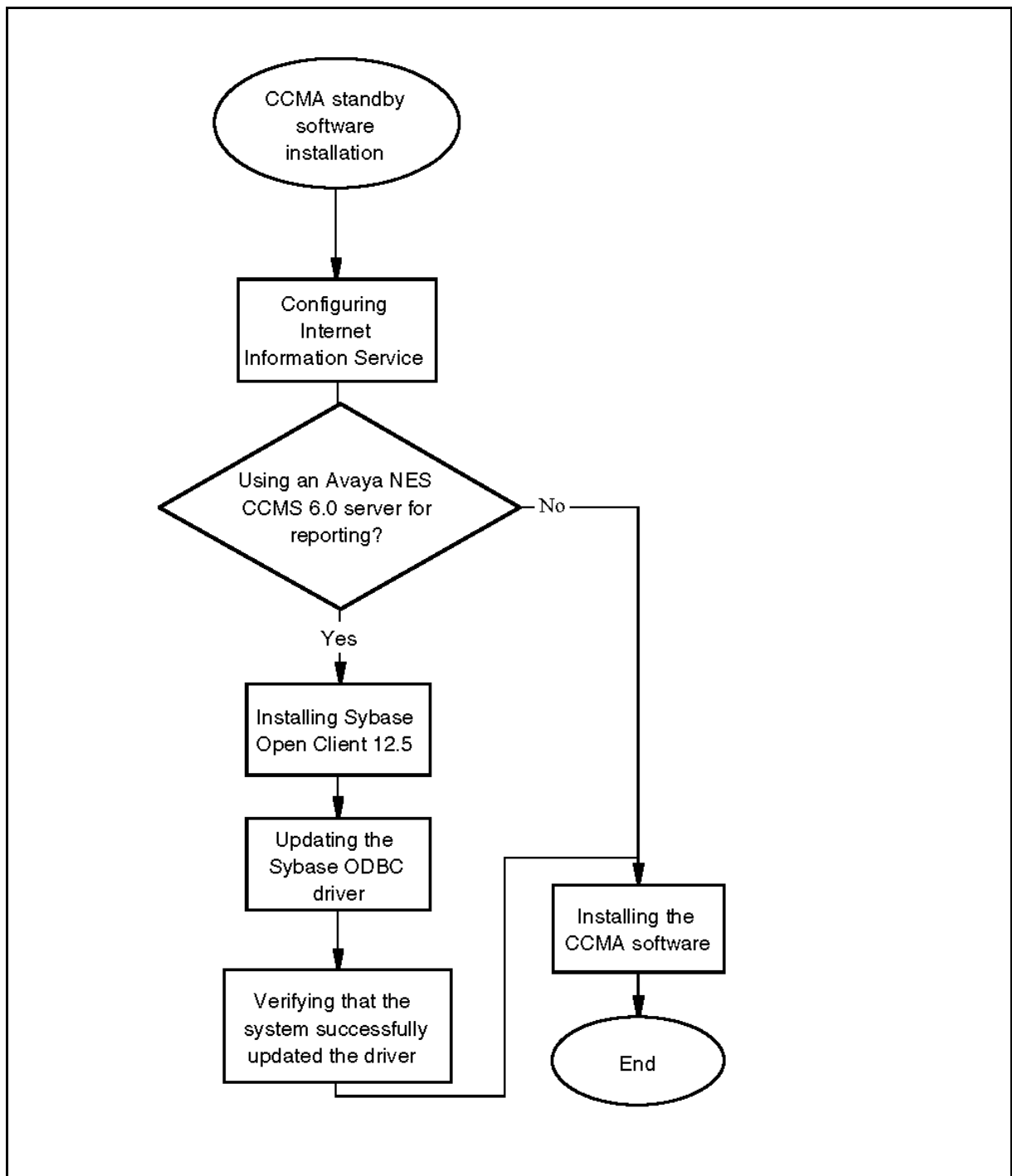
Attention: You must install the standby applications exactly the same as the active applications. The standby and active servers must have the same patch level and the same hard disk drive partitions.

- Install and configure a remote access tool such as LogMeIn Rescue (www.logmein.com) or enable the Microsoft Remote Desktop tool. See [Enabling Microsoft Remote Desktop connection \(page 33\)](#).

CCMA standby software installation procedures

This task flow shows you the sequence of procedures you perform to install the replication Contact Center Manager Administration software on your server. To link to any tasks, click [CCMA standby software installation navigation \(page 156\)](#). CCMA supports Sybase clients when the Sybase Open Client software and ODBC driver are installed.

CCMA standby software installation procedures



CCMA standby software installation navigation

- [Installing operating system components for Contact Center Manager Administration \(page 59\)](#)

- [Installing Sybase Open Client 12.5 \(page 61\)](#)
- [Updating the Sybase ODBC driver \(page 62\)](#)
- [Verifying that the system successfully updated the driver \(page 63\)](#)
- [Installing the Contact Center Manager Administration standby server software \(page 157\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Manager Administration software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Contact Center Manager Administration standby server software

To configure a CCMA replication server install CCMA on the standby server and enable replication. Enabling replication requires a few extra steps at install time to configure the standby server. A replication server can only be configured at install time.

Prerequisites

- Install and configure Internet Information Systems (IIS) on your Windows 2008 Server. See [Installing operating system components for Contact Center Manager Administration \(page 59\)](#).
- If you plan to report statistics from Contact Center Manager Server release 7.0, install Sybase Open Client 12.5. See [Installing Sybase Open Client 12.5 \(page 61\)](#).
- If you plan to report statistics from Contact Center Manager Server release 7.0, update the Sybase ODBC driver on your server and verify the updated driver. See [Updating the Sybase ODBC driver \(page 62\)](#). This step is required only when you use Sybase clients.
- Download the most recent Contact Center Manager Administration patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

Step	Action
1	Insert the Contact Center DVD into the DVD drive of your server.
2	If the installation does not automatically start, double-click Setup.exe .
3	Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click **Accept**. If you are prompted to restart the server, click **Yes** and repeat [step 2](#).

- 4 On the **Welcome** window, click **Next**.
- 5 If you already installed a Contact Center server software application on this server, click **Add a Component**, and then skip to [step 8](#).
- 6 On the **License Agreement** window, read the terms of the agreement.
- 7 Click **I accept the terms of the License Agreement**.
- 8 Click **Next**.
- 9 On the **Application Selection** window, from the **Select Switch Type** list, select the PABX type for your system.
- 10 Under **Install Type**, select installation type for your system.
- 11 Select **Contact Center Manager Administration (CCMA)**.
- 12 Click **Next**.
- 13 On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
- 14 Click the **Product Updates Location** tab.
- 15 Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
- 16 Click **Next**.
The System Readiness Check utility runs on the server.
- 17 If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
- 18 Click **Next**.
- 19 On the **Installation Data** window, type the installation details for each tab.
- 20 Select **Enable CCMA Replication**.
- 21 Select **Next**. The **Ready to Install** window appears, review and verify the information.
- 22 Select **Install**. The install continues until the AD\LDs setup wizard appears.
- 23 Select **Next**.
- 24 In the **Setup Options** dialog box, select **A replica of an existing instance**.
- 25 Select **Next**.
- 26 On the **Instance Name** dialog box, in the **Instance** name box, type the AD\LDs instance name. The default instance name is SymposiumWC.
- 27 Click **Next**.

- 28 On the **Ports** dialog box, if no other applications use the ports, accept the default values in the LDAP port number and SSL port number boxes select **Next**.

Attention: If an incorrect server name and port number are entered an error message appears.

Attention: Based on the server configuration, the default values in this window vary as follows: LDAP port number is 3899 and SSL port number is 6366. To create a replicating configuration set of Contact Center Manager Administration servers, the port numbers entered in the Port window must match the port numbers used to install the primary Contact Center Manager Administration server. As with the primary Contact Center Manager Administration installation, no other application must use these ports. Check with your administrator to ensure that these ports match the port numbers used for the primary Contact Center Manager Administration installation with which you replicate. Check with your administrator to ensure that no other applications use these ports. If the ports are in use, ask your administrator to recommend different port numbers, and then in the LDAP port number and SSL port number boxes, enter the new numbers.

- 29 On the **Joining a Configuration Set** dialog box, in the **Server** box, type the name of the primary Contact Center Manager Administration server to replicate. If you do not know the computer name, proceed to the next step. Otherwise, type the primary Contact Center Manager Administration server name and skip to [step 38](#).
- 30 Select **Browse** to locate the computer.
- 31 In the **Select Computer** dialog box, in the **Select this object type** box, ensure that **Computer** appears. If it does not appear, click **Object Types** and select **Computer**.
- 32 In the **From this location** box, ensure that your domain controller appears. If it does not appear, click **Locations** to select it.
- 33 When these values are in the boxes noted, click **Advanced**.
- 34 Click **Find Now**.
- 35 From the list of computers, select the primary Contact Center Manager Administration server to replicate, and then click **OK**.
- 36 Click **OK**.
- 37 On the **Joining a Configuration Set** window, in the **LDAP Port** box, type the port number on the remote server that the AD-LDS instance uses to communicate, and then select **Next**.

Attention: A configuration set is a group of AD-LDS instances that share the same configuration and schema. For example, when you replicate Contact Center Manager Administration AD-LDS instances, they all belong to the same configuration set.

- 38 On the Active Directory Application Mode Setup Wizard Credentials for the Configuration Set dialog box, select **This account**.
- 39 If the replicating server is in a domain in the **Username** box, enter the domain name followed by the user name in the format <domain name>\<username>
OR

If the replicating server is in a work group, in the **Username** box, enter the primary server name, this is the server running the primary AD-LDS instance, followed by the user name.

Attention: If you enter a domain user, the domain user you select must be the one which was used with primary CCMA server, and must be a member of both local Domain Administrators group and built-in replicator group. In addition, this user must be configured to run as a service.

Attention: If you added the primary and replicating server to a workgroup, this is the password used to log on to the server that is running the primary AD-LDS instance.

40 In the **Password** box, enter the password for this user account.

41 Click **Next**.

The system confirms the existence of the other AD-LDS instance on the server you indicated, and confirms the port number and user credentials you typed.

42 In the **Copying Application Directory Partitions** dialog box, in the **Available partitions** box, select the partition DC=nortelnetworks,DC=COM.

Attention: The directory partitions that exist in the other AD-LDS instance appear in the Available partitions box. All Contact Center Manager Administration specific AD-LDS instances have the DC=nortelnetworks,DC=COM partition. If this partition does not appear, this AD-LDS instance contains no Contact Center Manager Administration specific data and you cannot replicate this instance.

43 Select **Next**.

44 In the **File Location** dialog box, accept the default values, click **Next**.

45 In the **Service Account Selection** dialog box, choose the option for service account requirements of the AD-LDS instance that you create, that best suits your network configuration, Click **Next**.

Attention: If you select **This account**, the username and password must match the username and password to log on to the primary AD-LDS instance. Because AD-LDS runs as a service on the server, it requires a service account. AD-LDS service account requirements depend on the Windows domain environment in which you install AD-LDS, and the options in this window vary based on your configuration. In this example, AD-LDS is installed as a Windows Server 2008 member server in a Windows 2000 domain, so Network service account is selected.

46 In the AD LDS Administrators dialog box, select **This account**.

47 Click **Browse** to locate the domain or workgroup account that can be used to administer this ADAM instance.

48 Click **Next**.

The Active Directory Application Mode Setup Wizard Ready to Install dialog appears.

49 Confirm the installation components, and click **Next**.

50 Click **Finish**.

51 If prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application destination drive	The drive on which the Contact Center Manager Administration (CCMA) server software is installed.
Database destination drive	The drive on which the Contact Center Manager Administration (CCMA) database is installed. Avaya recommends that you install the database on a drive different from the application.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
Enable CCMA replication	CCMA replication is reproducing an active copy of the database for backup or emergency failure. In case of server failure, a current database is available to maintain the contact center. Clear the check box on the primary server.
LDAP Port Number	The port number for the Lightweight Directory Access Protocol (LDAP) on which commonly used contact information is stored on a server. The default value of the port is 3899. Ask the system administrator to ensure that the port number is not already in use. If you are installing the Security Framework on the same server as CCMA, you must change the LDAP port number. You cannot use the default number.
HTTP Port Number	The port number for the Hypertext Transfer Protocol (HTTP) for request/responses between the clients and servers. The default port is 80. Check with the system administrator to ensure that the port number is not already in use. You must change the port number to 81 to enable CCMA to run correctly with CCMM.
SSL Port Number	The port number for the Secure Sockets Layer (SSL) that controls security when applications are communicating across the network. The default port is 6366. Check with the system administrator to ensure that the port number is not already in use. If you install the Security Framework on the same server as Contact Center Manager Administration, you must change the SSL port number. You cannot use the default number.

Communication Control Toolkit standby software installation

This chapter describes how to install contact center server software on the standby Communication Control Toolkit (CCT) server. High Availability supports hot standby resiliency for CCT in your Avaya Aura™ Contact Center solution.

You can configure this CCT server as a standby CCT. The standby CCT takes over contact processing and becomes the active CCT if the active CCT fails. This standby CCT provides High Availability redundancy and resiliency.

You can configure this CCT server as a CCT Geographic Redundancy node. The CCT Geographic Redundancy node shadows the active CCT. Geographic Redundancy nodes do not automatically take over if the active system fails.

The software installation configuration on the standby CCT server must match the configuration of your active CCT server. If you installed Communication Control Toolkit with other software on your active server, then you must install all software applications in the same location on your standby server. If the active server is co-resident with Contact Center Manager Server (CCMS), CCT, and Contact Center Manager Administration (CCMA), you must install CCMS, CCT, and CCMA on the standby server.

The standby and active servers must have the same patch level and the same hard disk drive partitions.

Prerequisites to CCT standby software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210). The standby CCT server must be partitioned the same as the active CCT server.
- Install Contact Center Manager Server, Contact Center License Manager, Server Utility, and Contact Center Manager Administration software in your network.
- Understand the configuration of the primary server software in your contact center.

Attention: You must install the standby applications the same way as the active applications. The standby and active servers must be at the same patch level and have the same hard disk drive partitions.

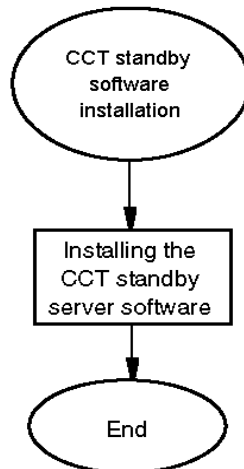
- Ensure you have a Standby Server license for Communication Control Toolkit.

Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install Contact Center server software.

CCT standby software installation procedures

This task flow shows you the sequence of procedures you perform to install the Communication Control Toolkit software on a standby server. To link to any tasks, click [CCT standby software installation navigation \(page 164\)](#).

CCT standby software installation procedures



CCT standby software installation navigation

- [Installing the Communication Control Toolkit standby server software \(page 164\)](#)

Job aid: Installation time

The estimated time to install the Communication Control Toolkit software is 40 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Communication Control Toolkit standby server software

The Communication Control Toolkit configuration you use for the standby CCT server must match the primary CCT installation. You must choose the same feature set (contact center or knowledge worker) and the same drive letter for the application and database as the primary installation.

Prerequisites

- Download the most recent Communication Control Toolkit patches to the server.
See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |
| 3 | Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 . |
| 4 | On the Welcome window, click Next . |
| 5 | If you already installed a Contact Center Release 6.0/6.1 server software application on this server, click Add a Component , and then skip to step 8 . |
| 6 | On the License Agreement window, read the terms of the agreement. |
| 7 | Click I ACCEPT the Terms of the End-User License Agreement . |
| 8 | Click Next . |
| 9 | On the Application Selection window, from the Select Switch Type list, select the PABX type for your system. |
| 10 | Under Install Type , select installation type for your system. |
| 11 | Under Communication Control Toolkit (CCT) , select Contact Center Feature Set .

In addition to installing the Communication Control Toolkit software development kit, this selection installs the CCT Open Interfaces, which you can license and configure later. |
| 12 | Click Next . |
| 13 | On the Product Data Upgrade window, click Next . |
| 14 | On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive . |
| 15 | Click the Database Destination Drive tab. |
| 16 | Under Install Communication Control Toolkit Database to , select the drive for the Communication Control Toolkit database. |
| 17 | Click the Product Updates Location tab. |
| 18 | Under Select the parent directory where patches are stored , select the drive on which you stored the patches. Click Browse to locate the folder. |
| 19 | Click Next .

<i>The System Readiness Check runs on the server.</i> |
| 20 | If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System |

Communication Control Toolkit standby software installation

Readiness Check and consult *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210) to determine the actions to resolve the issue.

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.

- 21 Click **Next**.
- 22 In the **Summary** window, confirm all information is correct.
- 23 Click **Install**.
- 24 After the installation is complete, click **Finish**.
- 25 If you are prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application drive	The location to install the Communication Control Toolkit server software.
Database drive	The location to install the Communication Control Toolkit Caché database.
Product Updates Location	The parent directory in which your administrator downloads the software patches.

Contact Center Multimedia standby software installation

This chapter describes how to install contact center server software on the standby Contact Center Multimedia (CCMM) server. High Availability supports hot standby resiliency for CCMM in your Avaya Aura™ Contact Center solution.

You can configure this CCMM server as a standby CCMM. The standby CCMM takes over contact processing and becomes the active CCMM if the active CCMM fails. This standby CCMM provides High Availability redundancy and resiliency.

You can configure this CCMM server as a CCMM Geographic Redundancy node. The CCMM Geographic Redundancy node shadows the active CCMM. Geographic Redundancy nodes do not automatically take over if the active system fails.

You must install the standby applications exactly the same as the active applications. The standby and active servers must have the same patch level and the same hard disk drive partitions.

Prerequisites to CCMM standby software installation

- Prepare your server for software installation. See [Server preparation \(page 21\)](#).
- Partition the drives as required. For more information, see *Avaya Aura™ Contact Center Planning and Engineering* (NN44400-210).
- Understand the configuration of the active server software in your contact center.
- If you use e-mail in your contact center, install and configure an inbound e-mail and an outbound e-mail server in your network.
- If you use Web communications in your contact center, install and configure a Web server in your network.
- If you use predictive outbound in your contact center, configure the predictive outbound hardware and software.
- Ensure you have a Standby Server license for CCMM.

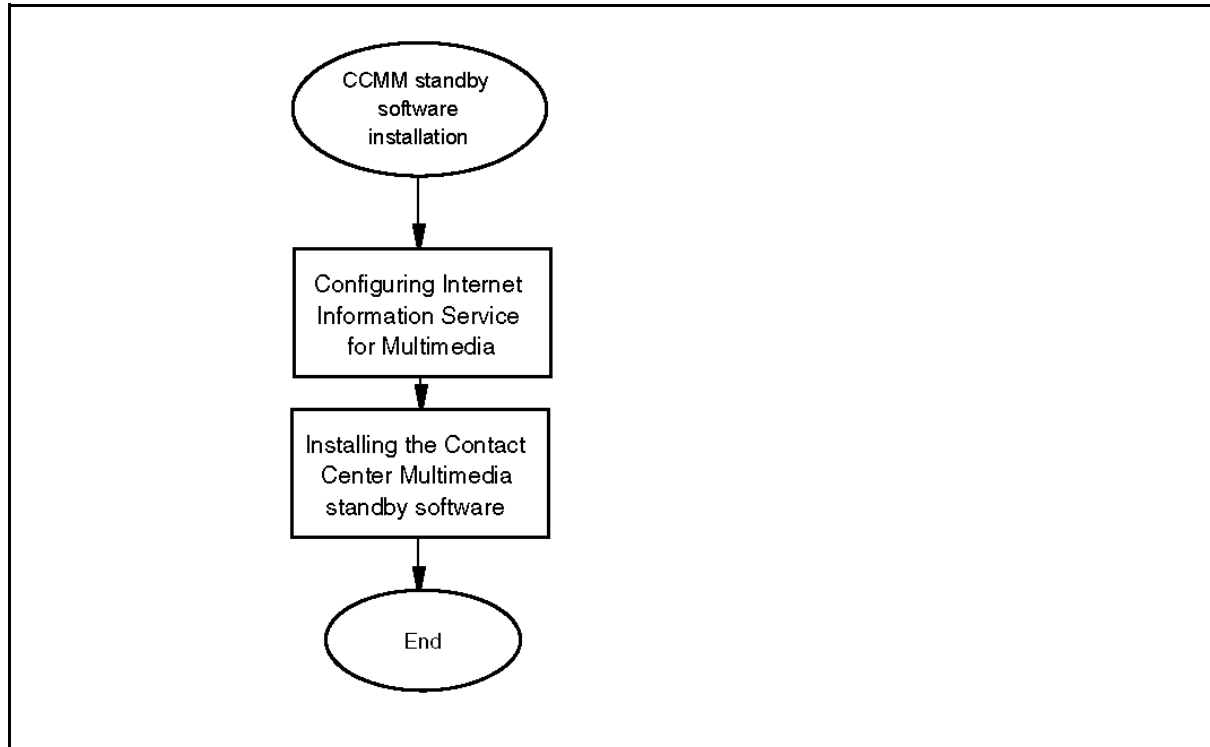
Attention: For the system to correctly handle backup and restore SNMP events, you must install Windows SNMP Service before you install Contact Center software.

- Install Contact Center Manager Server, Contact Center License Manager, Server Utility, and Contact Center Manager Administration software in your network.
- You must install the standby applications the same as the active applications. The standby and active servers must have the same patch level and the same hard disk drive partitions.

CCMM standby software installation procedures

This task flow shows you the sequence of procedures you perform to install Contact Center Multimedia redundancy software on your server. To link to any procedure, go to [CCMM standby software installation navigation \(page 168\)](#).

Contact Center Multimedia standby software installation procedures



CCMM standby software installation navigation

- [Configuring Internet Information Service \(page 109\)](#)
- [Installing the Contact Center Multimedia standby server software \(page 168\)](#)

Job aid: Installation time

The estimated time to install the Contact Center Multimedia software is 30 minutes. This time can vary depending on the server, network infrastructure, and your confidence level with the software. This installation time is based on installing a server that meets the minimum specification for this function.

Installing the Contact Center Multimedia standby server software

Install the Contact Center Multimedia standby server software.

Prerequisites

- Download the most recent Contact Center Multimedia patches to the server. See [Downloading the most recent patches to the server \(page 30\)](#).

Procedure steps

- | Step | Action |
|------|---|
| 1 | Insert the Avaya Aura™ Contact Center DVD into the DVD drive of your server. |
| 2 | If the installation does not automatically start, double-click Setup.exe . |
| 3 | Click Install to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click Accept . If you are prompted to restart the server, click Yes and repeat step 2 . |
| 4 | On the Welcome window, click Next . |
| 5 | If you already installed a Contact Center server software application on this server, click Add a Component , and then skip to step 8 . |
| 6 | On the License Agreement window, read the terms of the agreement. |
| 7 | Click I ACCEPT the Terms of the End-User License Agreement . |
| 8 | Click Next . |
| 9 | On the Application Selection window, from the Select Switch Type list, select the PABX type for your system. |
| 10 | Under Install Type , select installation type for your system. |
| 11 | Under Multimedia Server (CCMM) , select CCMM Primary Server . |
| 12 | Click Next . |
| 13 | On the Product Data Upgrade window, click Next . |
| 14 | On the Installation Destination window, on the Application Destination Drive tab, select the Application Destination Drive . |
| 15 | Click the Database Destination Drive tab. |
| 16 | Under Install Multimedia Server database to , select the drive for the Multimedia Server Database. |
| 17 | Click the Product Updates Location tab. |
| 18 | Under Select the parent directory where patches are stored , select the drive on which you stored the patches. Click Browse to locate the folder. |
| 19 | Click Next .

<i>The System Readiness Check utility runs on the server.</i> |
| 20 | If the System Readiness Check utility returns a Fail, the software installation cannot proceed until you correct the problem. Review any failures returned by the System Readiness Check and consult <i>Avaya Aura™ Contact Center Planning and Engineering</i> (NN44400-210) to determine the actions to resolve the issue. |

Contact Center Multimedia standby software installation

You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.

- 21 Click **Next**.
- 22 On the **Installation Data** window, type the installation details for the **CCMM - Primary Server** tab.
- 23 Click **Next**.
- 24 On the **Summary** window, review and verify the information.
- 25 Click **Install**.
- 26 After the installation is complete, click **Finish**.
- 27 If prompted, restart the server.

--End--

Variable definitions

Variable	Value
Application Destination	The drive on which the Contact Center Multimedia software application is installed.
Database Destination	The drive on which the Contact Center Multimedia database is installed. You must choose a drive other than the drive on which the application is installed.
Product Updates Location	The parent directory in which your administrator downloads the software patches.
Enable IM and Presence	Select the check box to enable Instant messaging and Presence. These two features are supported in an OCS-compliant system such as SIP with Avaya Communication Server 1000.
Manager Server	The name or IP address of the server on which the Contact Center Manager Server software is installed.
License Server	The name or IP address of the server on which the Contact Center License Manager software is installed.
Telephony Server	The name or IP address of the server on which the Communication Control Toolkit software is installed.
Administration Server	The name or IP address of the server on which the Contact Center Manager Administration software is installed.
Web Reporting Server Name	An agent can use the peer-to-peer feature to instant message other agents in the contact center while handling a customer contact. If the Web Reporting server is enabled, the peer-to-peer instant messages are tracked in the Contact Summary Report. If an agent creates a peer-to-peer IM while idle, the IM is not tracked.

(1 of 2)

Variable	Value
Web Reporting Port	The port for the optional server on which peer-to-peer reports are stored. The default port number is 9090.
UC Server - Server IP	The Avaya Aura™ Communications Manager server IP address, or depending on your Avaya Aura™ Unified Communications platform configuration, a suitable SIP-proxy endpoint.
Inbound Mail Server (POP3)	The name or IP address of the server to on which e-mail messages are received in your network.
Outbound Mail Server (SMTP)	The name or IP address of the server from on which e-mail messages are sent. Your inbound and outbound mail servers can have the same name.
Enter Predictive Outbound Configuration	An option to use Predictive Outbound in your contact center, if Predictive Outbound is installed. Select the check box to enable the fields and enter the server information.
Predictive Server	The name or IP address of the Predictive Outbound solutions application server on which the administration software resides, or the CPSE ² server.
Predictive Reporting Server	The name or IP address of the Predictive Outbound solutions server that contains the statistics for reporting predictive outbound data, or Portfolio server.
Web Stats Server	The name or IP address of the optional Web Stats server that agents and supervisors use to view real-time statistics for call handling, skillset data, and the state information on the Agent Desktop.
Web Stats Port	The port number of the Web Stats server. The default port number is 9086.
Web Communications Server	The name or IP address of the server on which the Web Customer Interface is installed if Web communications is licensed in your contact center.
(2 of 2)	

Post install instructions

This chapter contains the procedures you must perform after installing Contact Center applications.

Disabling Java Runtime Environment updates

Contact Center supports only specific versions of Java Runtime Environment (JRE). The Contact Center Installer installs a supported JRE version, and Contact Center service packs install any required JRE updates. It is important that you disable JRE automatic updating in the Control Panel on all contact center servers.

Attention: Updating to an unsupported version of JRE can cause the contact center to cease operation and may require the reinstallation of the contact center server.

Prerequisites

- Install the Contact Center applications.

Procedure steps

Step	Action
1	Choose Start, Control Panel, Programs .
2	Click Java (32-bit) .
3	Click the Update tab.
4	Clear the Check for Updates Automatically check box.
5	In the Warning dialog box, click Never Check .
6	Click OK .

--End--

Server software uninstallation

Remove any Avaya Aura™ Contact Center Release 6.0/6.1 server software from your server to prepare to move the software component to another network server.

Prerequisites for server software un-installation

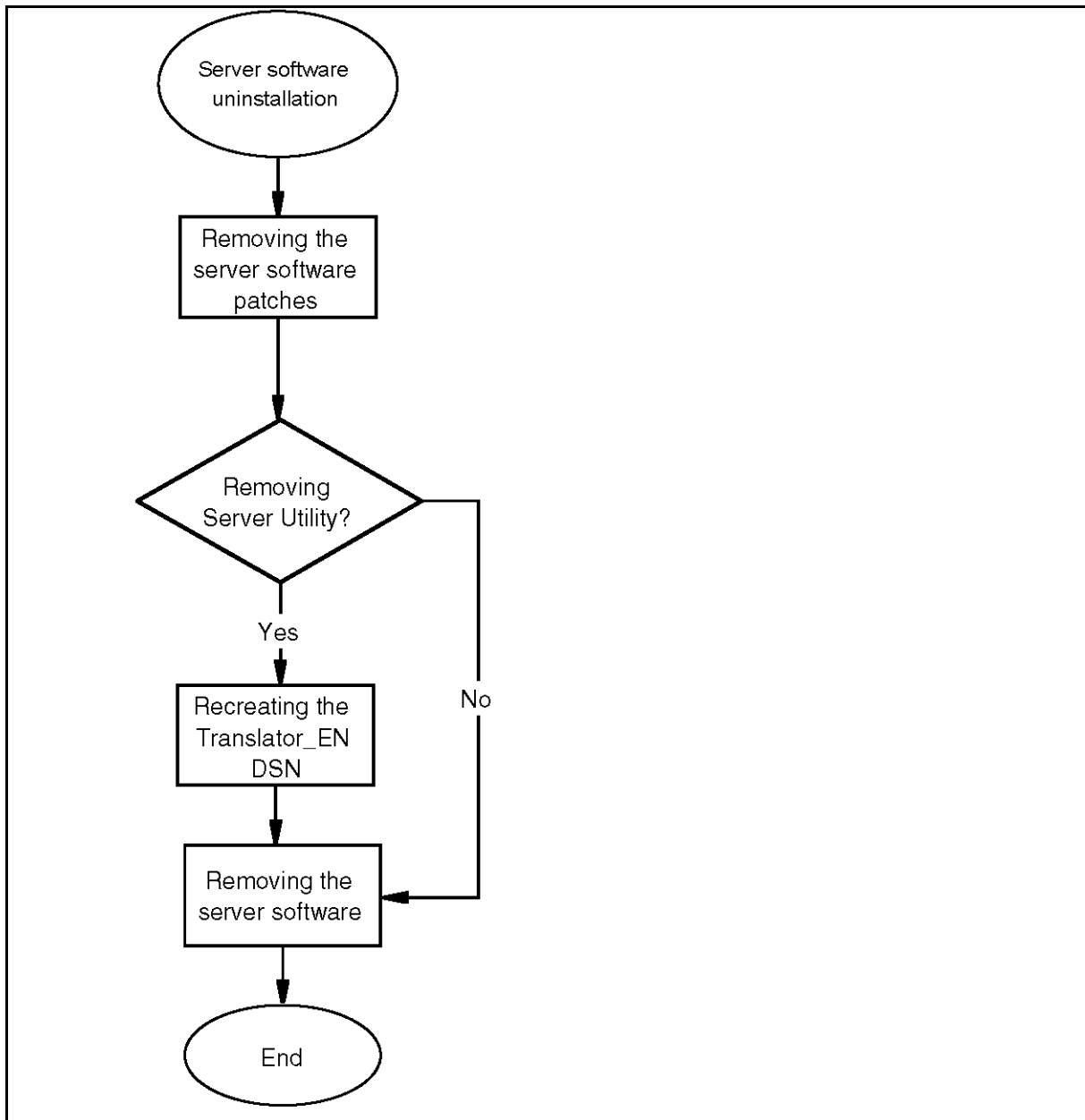
- Ensure that you have the un-installer on the server or that you have the Contact Center Release 6.0/6.1 server installation DVD is in the DVD drive.

Server software un-installation procedures

This task flow shows you the sequence of procedures you perform to un-install any server software. To link to any tasks, click [Server software un-installation navigation \(page 176\)](#).

Server software uninstallation

Server software un-installation procedures



Server software un-installation navigation

- [Removing the server software patches \(page 177\)](#)
- [Recreating the Translator_EN DSN \(page 177\)](#)
- [Removing the server software \(page 178\)](#)

Removing the server software patches

Remove the most recent patches to ensure that you have your base software remaining to remove.

Prerequisites

- Ensure that you know the most recent patch.

Procedure steps

Step	Action
1	On the server, click Start, All Programs, Avaya, Common Utilities, Contact Center Patch Viewer .
2	On the Avaya Contact Center - Patch Viewer dialog box, click Remove All .
3	On the Warning: Confirm Removal of ALL Product Updates message box, click Yes .
4	Repeat step 2 to step 3 for each tab on the Avaya Contact Center - Patch Viewer dialog box.
5	Click Close .
6	Restart the server.

--End--

Recreating the Translator_EN DSN

On a co-resident server, if you un-install Contact Center Manager Administration and then want to un-install Server Utility, you must first recreate the Translator_EN DSN.

Procedure steps

Step	Action
1	On the co-resident server, navigate to <install directory>:\Avaya\Contact Center\Server Utility\Client\en\bin .
2	Double-click recreateDSN.exe .
3	On the Translator_EN DSN Creation Utility dialog box, click Create DSN . <i>In the Progress section, a message appears stating DSN successfully added.</i>
4	Click Exit .

--End--

Removing the server software

Remove all or parts of the server software to remove the software applications and corresponding databases from the server.

You can remove the server software with the un-installer on the server or with the setup.exe file on your Contact Center Release 6.0/6.1 DVD.

The installation for CCMA includes AD-LDS software. The CCMA un-installation does not remove AD-LDS. Removing AD-LDS can cause the operating system to malfunction. To un-install AD-LDS software, see *Avaya Aura™ Contact Center Troubleshooting* (NN44400-712). However, un-installing CCMA removes the AD-LDS Instance (CCMA data store).

Prerequisites

- Remove all patches for the server software you want to remove.
- To maintain the database, ensure that you back up the database to another network location.
- To remove Server Utility from a co-resident server from which Contact Center Manager Administration was already removed, you must recreate the Translator_EN DSN. See [Recreating the Translator_EN DSN \(page 177\)](#).

Procedure steps

Step	Action
1	Click Start, All Programs, Avaya, Contact Center, Uninstaller .
2	On the Welcome window, click Next .
3	On the Program Maintenance window, select Remove .
4	Click Next .
5	On the Remove window, select the software applications to remove.
6	Click Remove .
7	Confirm the software applications to remove.
8	Click Remove .
9	After the installation is complete, click Finish .
10	If you are prompted, restart the server.

--End--

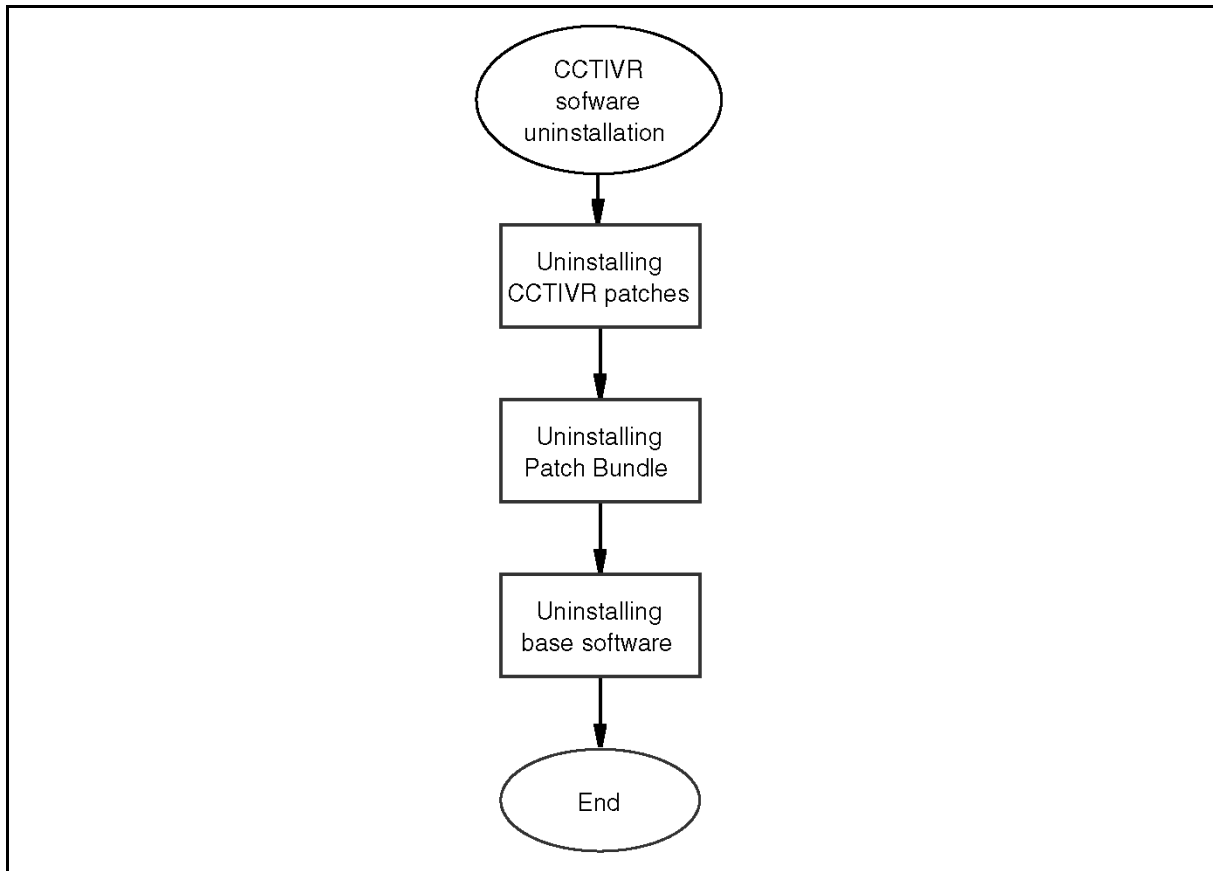
CCTIVR software uninstallation

To un-install CCTIVR software, you must remove CCTIVR patches, then the patch bundle, and finally the base software.

CCTIVR software un-installation procedures

This task flow shows you the sequence of procedures you perform to un-install CCTIVR software from a server. To link to any tasks, click [CCTIVR software un-installation navigation \(page 179\)](#).

CCTIVR software un-installation procedures



CCTIVR software un-installation navigation

- [Un-installing CCTIVR patches \(page 180\)](#)
- [Un-installing a patch bundle \(page 180\)](#)
- [Un-installing base software \(page 180\)](#)

Un-installing CCTIVR patches

Un-install CCTIVR patches.

Each patch has an un-installation file. This file is always named un-installpatch.pl and is in the same directory as the associated patch (normally C:\program\files\avaya\sssuite\patches\%).

Procedure steps

Step	Action
1	Stop the Avaya MPS Service.
2	Locate the uninstallpatch.pl file using Windows Explorer.
3	Double-click the file to run it.
4	Start the Avaya MPS Service.

--End--

Un-installing a patch bundle

Un-install a patch bundle.

Procedure steps

Step	Action
1	Use Add/Remove Programs in the Windows Control Panel dialog box to un-install the Patch Bundle.

--End--

Un-installing base software

Un-install base software.

Procedure steps

Step	Action
1	Use Add/Remove Programs in the Windows Control Panel dialog box to un-install the base software.

--End--

Appendix: Free open source software licensing

Avaya Aura™ Contact Center contains a number of open source software packages, which are embedded and delivered as part of the installation. This appendix lists the suppliers of these packages and the associated public licenses for their distribution and use.

Navigation

- [TAO \(page 181\)](#)
- [Apache \(page 182\)](#)
- [Eclipse \(page 186\)](#)
- [SUN \(page 191\)](#)
- [OpenSSL \(page 199\)](#)

TAO

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