Avaya Aura® Contact Center Installation

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Chapter 1: New in this release

The following sections detail what is new in *Avaya Aura® Contact Center Installation* (NN44400-311) for Release 6.2.

Navigation

- Features on page 9

Features

See the following sections for information about feature changes:

- Avaya Aura® Call Center Elite support on page 9
- Avaya Aura® Solution for Midsize Enterprise platform support on page 10
- Avaya Media Server on Linux on page 10
- DVD Installer High Availability support on page 10
- Secure Access Link on page 11
- Licensing on page 11

Avaya Aura® Call Center Elite support

Avaya Aura® Contact Center Release 6.2 supports integration with Avaya Aura® Call Center Elite. Avaya Aura® Call Center Elite provides voice-based contact center functionality. Avaya Aura® Contact Center provides multimedia-enabled contact support. A combined Avaya Aura® Contact Center and Avaya Aura® Call Center Elite contact center solution provides a unified voice and multimedia Agent Desktop, and unified reporting. You can install Avaya Aura® Contact Center to add multimedia-enabled capabilities to new or existing Avaya Aura® Call Center Elite contact center solutions.

To install Avaya Aura® Contact Center to support the Avaya Aura® Call Center Elite platform, select the “Select Switch Type” - “No Switch Configured” option on the DVD installer.

Avaya Aura® Solution for Midsize Enterprise platform support

Avaya Aura® Contact Center Release 6.2 supports integration with Avaya Aura® Solution for Midsize Enterprise Release 6.1 and 6.2.

The Avaya Aura® Solution for Midsize Enterprise Solution Template delivers the following applications for use as virtual machines running on Avaya Aura® System Platform:

For Avaya Aura® Solution for Midsize Enterprise (ME) platform Release 6.1:

- Avaya Aura® Communication Manager 6.0.1
- Avaya Aura® Session Manager 6.1
- Avaya Aura® System Manager 6.1
- Avaya Aura® Presence Services 6.1
- Avaya Aura® Utility Services 6.1
- Avaya Aura® Application Enablement Services 6.1

For Avaya Aura® Solution for Midsize Enterprise (ME) platform Release 6.2:

- Avaya Aura® Communication Manager 6.2
- Avaya Aura® Session Manager 6.2
- Avaya Aura® System Manager 6.2
- Avaya Aura® Presence Services 6.1
- Avaya Aura® Utility Services 6.2
- Avaya Aura® Application Enablement Services 6.1.2.0.32

To install Avaya Aura® Contact Center to support the Avaya Aura® Solution for Midsize Enterprise platform, select the “Select Switch Type” - “SIP - Avaya Aura® 6.1” option on the DVD installer.

Avaya Media Server on Linux

Avaya Aura® Contact Center Release 6.2 provides support for installing Avaya Media Server on the Linux operating system.

DVD Installer High Availability support

The Avaya Aura® Contact Center DVD Installer contains additional questions to support the High Availability feature.

Secure Access Link

Avaya Aura® Contact Center supports Avaya Secure Access Link (SAL). SAL is a remote-access architecture that provides simplified network management and increased support options for greater security, reliability and flexibility. Secure Access Link (SAL) gives you complete control of when and how Avaya, or any other service partner, can access your equipment. You can take advantage of channel-neutral support by enabling self-service, Avaya, and/or business-partner support of your networks. For more information about Avaya Secure Access Link, see www.avaya.com/support.

Licensing

Avaya Aura® Contact Center supports WebLM. Avaya Aura® Contact Center can use WebLM to license the contact center features and to control the number of agents in your system. When using WebLM, new installation steps are required. For more information about installing the License Manager, see License Manager installation on page 67.

Chapter 2: Introduction

This document describes how to install and un-install all server software for Avaya Aura® Contact Center Release 6.2.

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, Avaya Media Server, and Contact Center Multimedia

You can install Contact Center software in various environments:

- AML-based Avaya Communication Server 1000
- SIP-enabled Avaya Communication Server 1000
- Avaya Aura® Unified Communications platform Release 5.2
  - Including Avaya Aura® Midsize Business Template Release 5.2.1
- Avaya Aura® Unified Communications platform Release 6.1
  - Including Avaya Aura® Solution for Midsize Enterprise Release 6.1
- Avaya Aura® Unified Communications platform Release 6.2
  - Including Avaya Aura® Solution for Midsize Enterprise Release 6.2
- No Switch Configured. Select this option when installing Avaya Aura® Contact Center as a multimedia addition to Avaya Aura® Call Center Elite, or when installing Avaya Aura® Contact Center to support only multimedia contacts.

Application Module Link (AML) is an internal protocol used by Avaya Aura® Contact Center to communicate directly with Avaya Communication Server 1000.

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.
- 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 6.2 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 CS 1000 Integration* (NN44400-512) 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.

Related resources

Support

Visit the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. On the Avaya Support website at http://support.avaya.com, search for notices, release notes, downloads, user guides, and resolutions to issues. Use the Web service request system to create a service request. Chat

with live agents to help answer questions. If an issue requires additional expertise, agents can quickly connect you to a support team.

Avaya Mentor videos

Avaya Mentor is an Avaya-run channel on YouTube that includes technical content on how to install, configure, and troubleshoot Avaya products.

Visit http://www.youtube.com/AvayaMentor and do one of the following:

- Enter a key word or key words in the Search channel to search for a specific product or topic.
- Click the name of a playlist to scroll through the posted videos.

Chapter 3: Avaya Aura® Contact Center software installation

The Contact Center Release 6.2 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.

When adding an Avaya Aura® Contact Center component co-resident with an existing installed Avaya Aura® Contact Center application, you must:

- Stop all Avaya Aura® Contact Center services.
- If Contact Center Manager Administration is installed, stop the SymposiumWC service.
- If Communication Control Toolkit is installed, stop the Communication Control Toolkit Tomcat service.

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

About this task

This work flow shows you the sequence of tasks you perform to install one or more Contact Center components on a server.

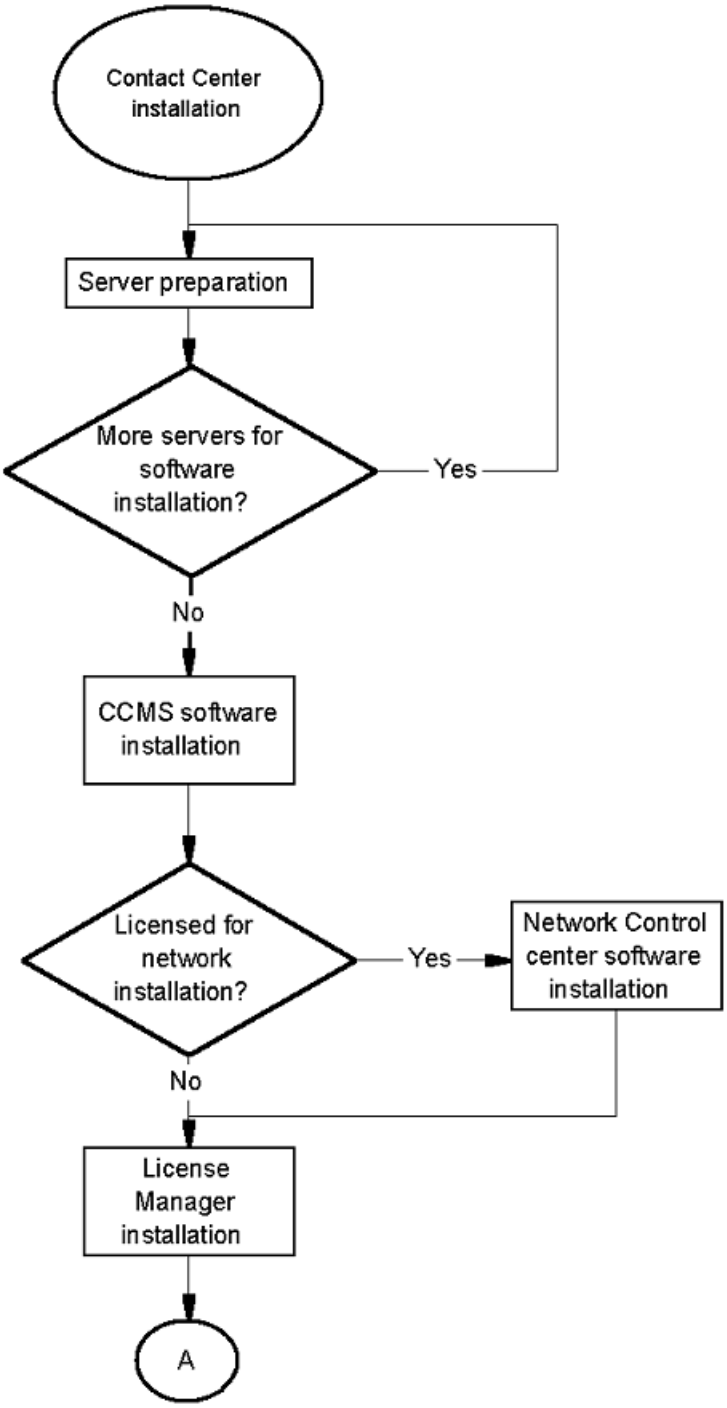


Figure 1: Contact Center software installation tasks

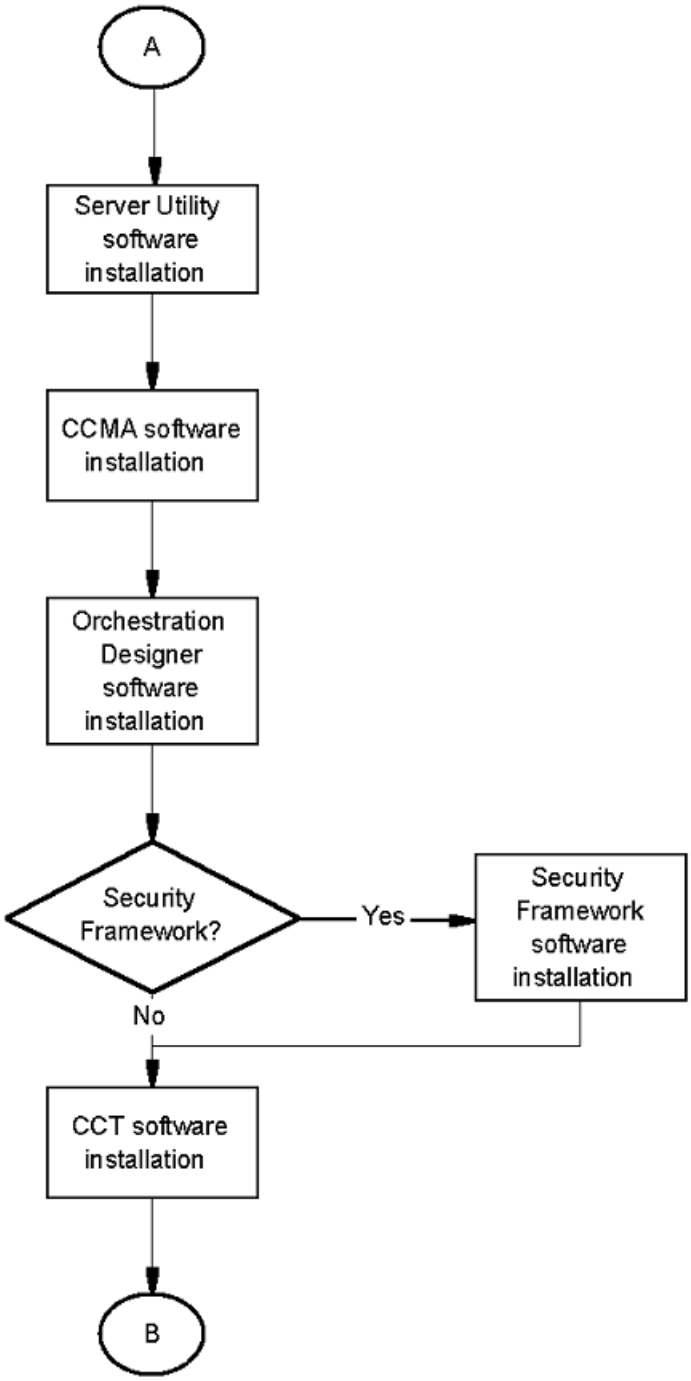


Figure 2: Contact Center software installation tasks continued

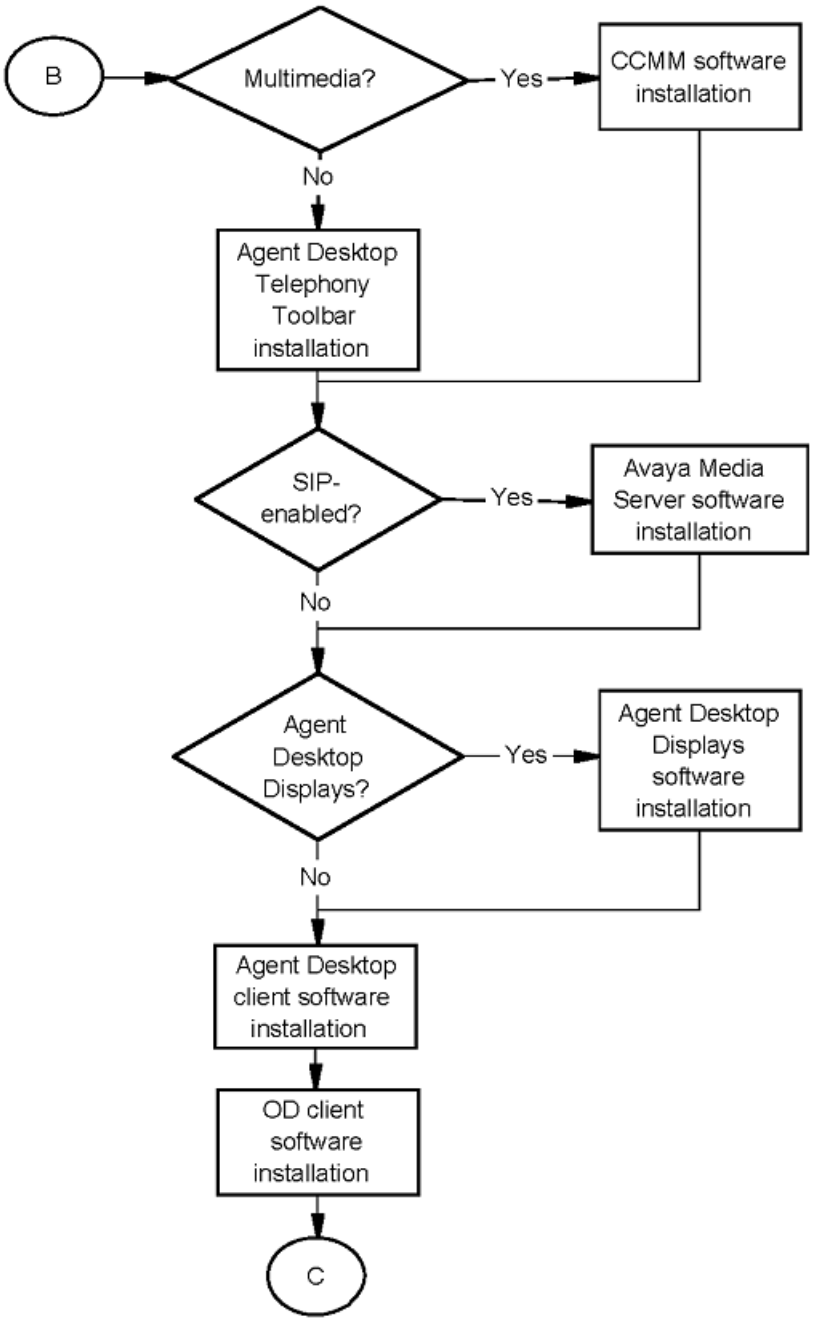


Figure 3: Contact Center software installation tasks continued

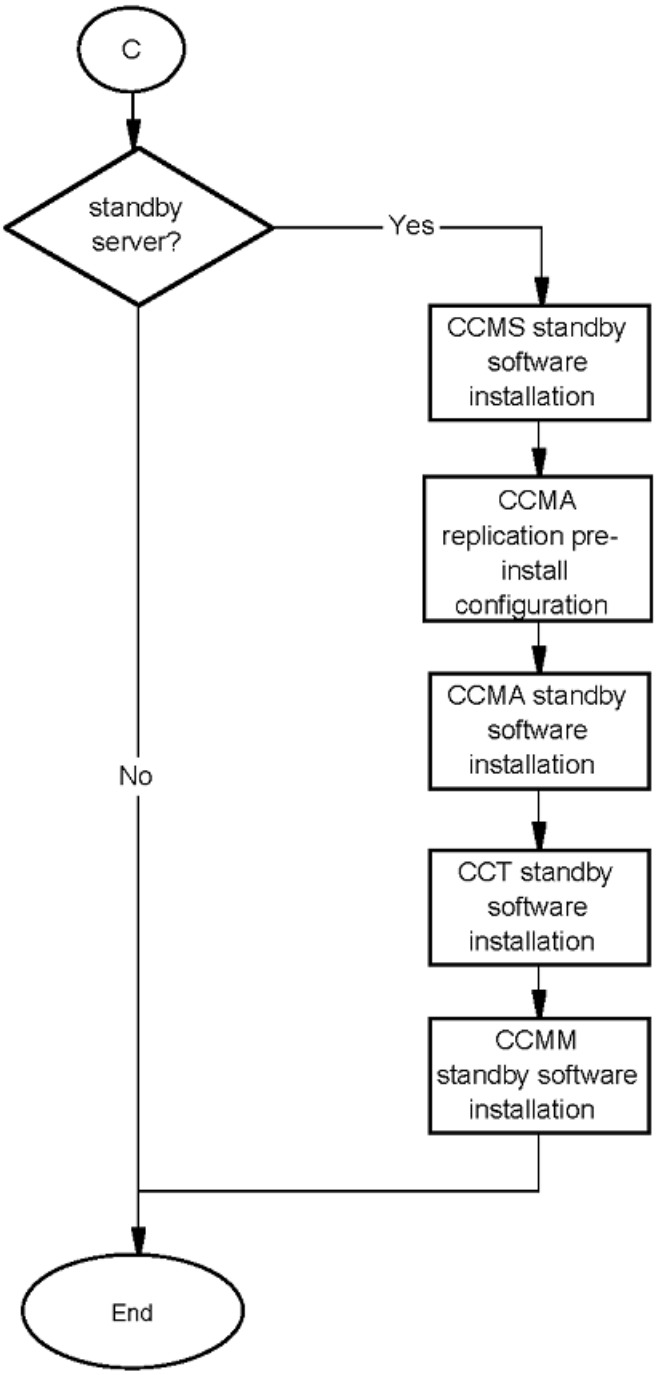


Figure 4: Contact Center software installation tasks continued

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.

Table 1: 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, Avaya Media Server	Install multiple software applications on the same server for small-sized contact centers when you have only one server. This configuration is supported only in SIP-enabled contact centers.

Chapter 4: 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 Windows Server 2008 64-bit Release 2 server you plan to use.

If the server is to be used in a domain, Avaya recommends that you add the server to the domain before installing Contact Center software.

You can change the name of a CCMS, CCMA, CCT or CCMM server, but because this is time consuming, Avaya recommends that you configure the server final production name before installing Contact Center software.

If you plan to follow the Microsoft server hardening guidelines, complete those procedures before installing Avaya Aura® Contact Center.

Important:

You can create an administration account on the server and then install Avaya Aura® Contact Center using the account. This Avaya Aura® Contact Center administration account must have full administrative privileges. You must upgrade and patch Avaya Aura® Contact Center using this administration account. You can rename this account after installing Avaya Aura® Contact Center, but you must not delete the account. If you delete the account used to install Avaya Aura® Contact Center, Avaya Aura® Contact Center will stop working.

Important:

After you install Avaya Media Server software on a server, changing the server name or IP address is not supported. To change the name or IP address of a server with Avaya Media Server software installed you must:

- Backup the Avaya Media Server database
- Uninstall Avaya Media Server software
- Change the server name or IP address
- Install Avaya Media Server software
- Restore the Avaya Media Server database

If you are installing Avaya Media Server on the Linux operating system, skip this section. For more information about installing Avaya Media Server on the Linux operating system, see Installing Avaya Media Server software on Linux on page 168.

If you are installing CCT-IVR software on the Windows Server 2003 operating system, skip this section. CCT-IVR software is supported only on the Windows Server 2003 operating system. CCT-IVR is not supported co-resident with Avaya Aura® Contact Center software.

Hyper-V disk controller support

Microsoft Hyper-V virtual machines use a virtual IDE controller for the Operating System disk partition, even when the underlying Hyper-V server hardware uses a SCSI disk controller. When you install Avaya Aura® Contact Center software on a physical server, the DVD installer *System Readiness Checks* utility examines the physical server hardware for suitability. When you install Avaya Aura® Contact Center software on a virtual machine, the DVD *System Readiness Checks* utility examines the virtual machine for suitability. Avaya Aura® Contact Center does not support IDE controllers, therefore when installing Avaya Aura® Contact Center software on a Hyper-V virtual machine, the *System Readiness Checks* utility may display a “Hard dive type – IDE” warning message. You can ignore this warning if the underlying physical Hyper-V Server hardware uses one of the supported disk controllers: SCSI, SATA, or SAS.

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).

Server preparation tasks

About this task

This task flow shows you the sequence of procedures you perform to prepare all servers for Contact Center software installation.

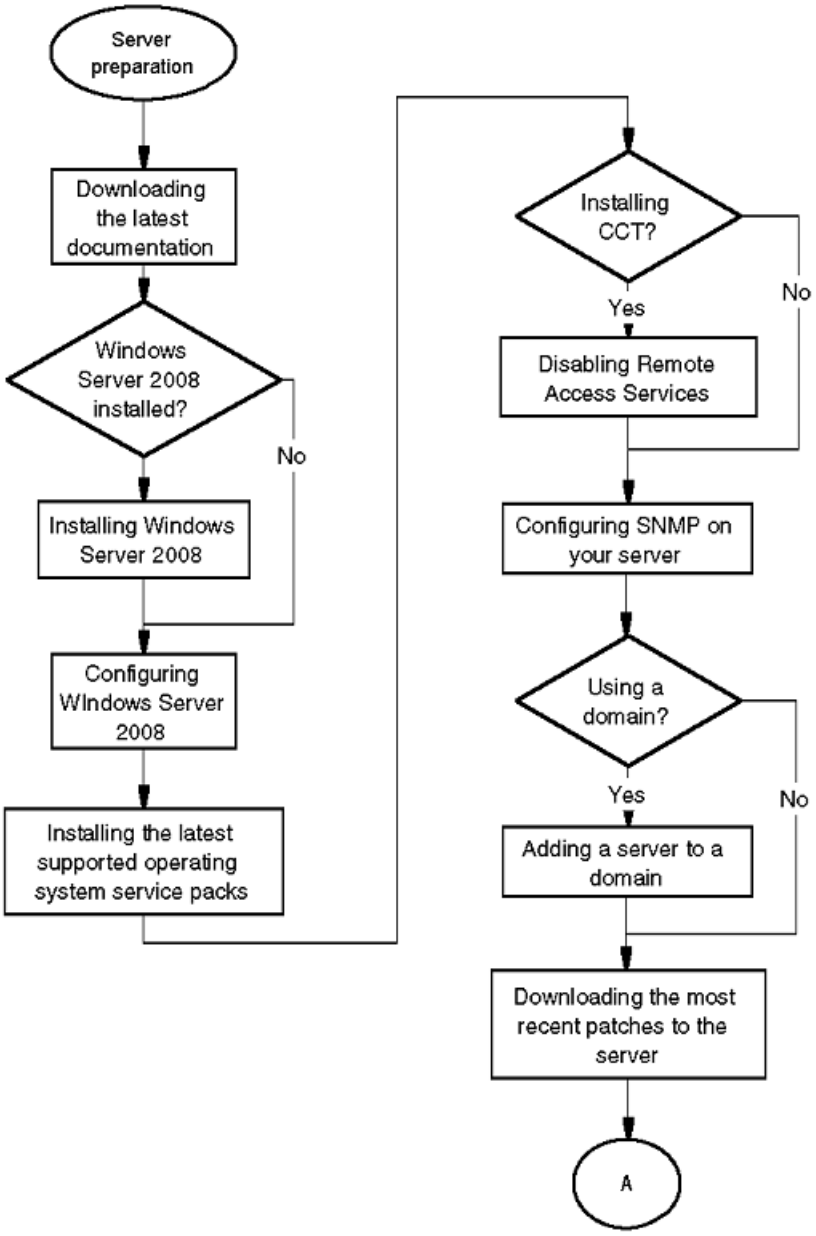


Figure 5: Server preparation task procedures

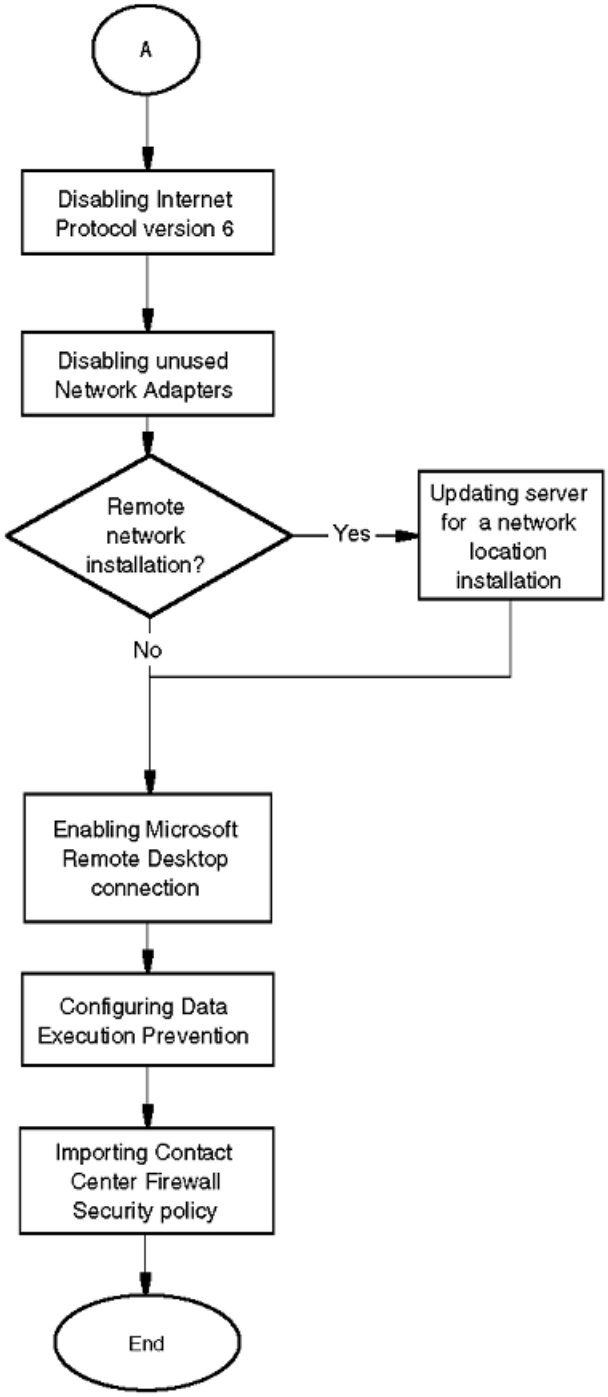


Figure 6: Server preparation task procedures continued

Downloading the latest documentation

Before you begin

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

About this task

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

Procedure

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.

Installing Windows Server 2008 Release 2

Before you begin

- 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.
- Configure all servers for RAID as described in the *Avaya Aura® Contact Center Planning and Engineering* (NN44400-210).
- Partitions the hard drives on the server, 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.
- If you are using an ELAN subnet, know the IP addresses for the ELAN subnet.

About this task

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.

Procedure

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.

    Important:

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

    Important:

    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 installation 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 AML-based 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 Avaya Media Server.
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 disk drive C to be the Operating System 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.

Procedure job aid

Name	Description
Date and Time Settings	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 AML-based 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.

Name	Description
	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 *Avaya Aura® Contact Center Planning and Engineering* (NN44400-210).
Domain/workgroup 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/adapter, ensure contact center subnet appears first in the network adapter binding order.
Partitions	Configure C: drive to be a primary drive. Configure the other drives on your server to meet the requirements according to *Avaya Aura® Contact Center Planning and Engineering* (NN44400-210) for the server.
Regional settings window	Configure as required for your site.
Serial port configuration	For COM1, set the base I/O Port Address to 3F8 and the IRQ to 4.
SNMP	Configure for all servers.

Configuring Windows Server 2008

Before you begin

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

About this task

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

Procedure

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 instructions to select what you want to back up.

Installing the latest supported operating system service packs

Before you begin

- 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).
- Install the Microsoft .NET Framework 3.5 and Microsoft .NET Framework 3.5 SP1.

About this task

Avaya recommends that you install the most recent supported 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.

Procedure

1. Log on to the server and disable the Windows Update feature. There are a number of methods for disabling the Windows Update feature, refer to the Windows Server 2008 documentation for a method suitable to your solution. Disabling the Windows Update feature prevents Windows Server 2008 from automatically applying operating system patches and potentially rebooting the server.
2. Review the Contact Center Service Packs Compatibility and Security Hotfixes Applicability List to determine the most recent Avaya Aura® Contact Center supported patches or service packs.
3. Download the appropriate Microsoft Windows Server 2008 patches for the Avaya Aura® Contact Center software installed on this server.
4. Install the most recent Windows Server 2008 service pack that is validated with Avaya Aura® Contact Center by following the Microsoft Installation instructions.

Disabling the Remote Access services

About this task

Communication Control Toolkit does not support Remote Access Services (RAS). Disable the Remote Access services before installing Communication Control Toolkit. Microsoft Remote Desktop continues to run after you disable Remote Access services. After you disable the services, restart the server.

Procedure

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 **Services** window, click **File**, **Exit**.

11. Restart the server.

Configuring SNMP on your server

Before you begin

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

About this task

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.

Procedure

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 **Server Manager** and click **Add Features**.
5. Select **SNMP Services**.
6. Click **Next**.
7. Click **Install**.
8. If prompted, insert the Windows Server 2008 DVD.
9. Click **Close**.

Adding a server to a domain

Before you begin

- Ensure that you have domain administrator privileges, or ask the Domain Administrator to assign you a domain user account for remote access.
- On the server, configure a preferred Domain Name System (DNS) server on the Network Interface Card (NIC).

About this task

Add the server to an existing domain. Avaya recommends that you add the server to the domain before installing Contact Center software.

Ask your System Administrator to add a Domain Name System (DNS) static entry for this server. Each Contact Center server in a domain requires a DNS static entry.

Important:

Avaya Aura® Contact Center High Availability solutions do not support Windows Server 2008 Dynamic DNS.

In High Availability solutions, ask your System Administrator to add one DNS static entry for the each managed name and associated managed IP address. A typical High Availability campus solution with a pair of co-resident servers requires 3 DNS static entries; one DNS static entry for the active server, one DNS static entry for the standby server, and one DNS static entry for the managed name and associated IP address.

Procedure

1. Log on to the server.
2. Click **Start** > **Administrative Tools** > **Server Manager**.
3. Beside **Computer Information**, click **Change System Properties**.
4. In the **System Properties** dialog box, click the **Computer Name** tab.
5. Click **Change**.
6. In the **Computer Name/Domain Changes** dialog box, click the **Domain** option.
7. Type the domain name (you must provide the fully qualified domain name, which includes the prefix and suffix).
8. Click **OK**.
9. Type your **User name** and **Password**.
10. Click **OK**.
11. Restart the server when you are prompted to do so.

Downloading the most recent patches to the server

Before you begin

- 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.

About this task

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.

Procedure

1. Log on to the server using the administrator account.
2. Create a folder **Avaya_Support\ProductUpdates** on the drive on which you want to save the software updates.
3. Download the most recent service pack file and save it on the Contact Center server in the Avaya_Support\ProductUpdates folder.
4. If a new service pack file exists on the support Web site, download and save it on the Contact Center server in the Avaya_Support\ProductUpdates folder.

Disabling Internet Protocol version 6

About this task

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

Procedure

1. Search the Microsoft support Web 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.

Disabling unused Network Adapters

About this task

Disable all unused Network Adapters or Network Interface Cards (NICs) to improve network communications and prevent the erroneous configuration of unused NICs during Contact Center server commissioning.

Procedure

1. Log on to the server.
2. Click **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center** > **Change Adapter Settings**.
3. Right-click on the unused Network Adapter, and select **Disable**.
4. Repeat this procedure for all unused Network Adapters.

Updating server for a network location installation

About this task

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

Procedure

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** box, type the <IP address> of the remote server.
5. Click **Add**.
6. Click **OK**.
7. Close the Internet Options box.
8. Navigate to your network location.
9. Double-click **NetworkSetup.bat**.

.NetFramework 3.5 installs and the .NetSecurity settings are modified.

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**.

Enabling Microsoft Remote Desktop connection

Before you begin

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

About this task

Enable Microsoft Remote Desktop connection as your remote access tool. Microsoft Remote Desktop provides remote access for support on the server.

Procedure

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 (less secure)**.
5. Click **OK**.

Configuring Data Execution Prevention

About this task

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

Procedure

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.

Importing Contact Center Firewall Security policy

Before you begin

- 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.

About this task

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, if you ever need to.

Procedure

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

Windows exports the existing policy. You can use this backup policy to rollback the Avaya Aura® Contact Center Firewall Security policy, if you ever need to.

5. On the **Policy successfully exported** message box, click **OK**.
6. Choose **Actions** > **Import Policy**.
7. On the policy overwrite message box, click **Yes**.
8. Navigate to the folder containing the Avaya Aura® Contact Center Firewall Security policy.
9. Click **Open**.
   Windows imports the Avaya Aura® Contact Center Firewall Security policy.
10. On the **Policy successfully imported** message box, click **OK**.

Chapter 5: 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 standalone on a server, or co-resident with other Contact Center software applications.

Contact Center Manager Server supports two Network Interface Cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center Manager Server ELAN NIC and ELAN subnet are optional.

Prerequisites to CCMS software installation

- Prepare your server for software installation. See Server preparation on page 23.
- Partition the server hard disk 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.

Important:

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

About this task

This task flow shows you the sequence of procedures you perform to install Contact Center Manager Server software on your server.

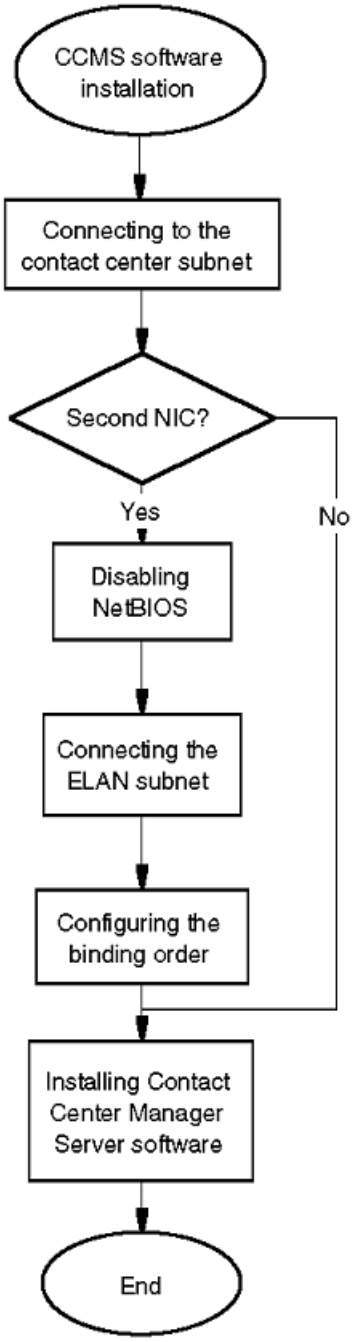


Figure 7: CCMS software installation procedures

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.

Connecting to the contact center subnet

About this task

Connect the Contact Center 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

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.

Disabling NetBIOS

About this task

If the Contact Center server uses two Network Interface Cards (NICs), disable NetBIOS on the Embedded LAN (ELAN) network interface card (NIC) to avoid NetBIOS conflicts.

Contact Center supports two Network Interface Cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center ELAN NIC and ELAN subnet are optional.

Procedure

1. Choose **Start** > **Control Panel** > **Network and Internet**.
2. Click **Network and Sharing Center**.

3. Click **Change adapter settings**.
4. Right-click the ELAN Network Interface Card (NIC).
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**.

Connecting the Embedded LAN subnet

Before you begin

- Install two network cards on the Contact Center server.
- Disable the NetBIOS on the ELAN network interface card.
- Connect the contact center subnet network interface card.

About this task

Connect the Embedded LAN (ELAN) NIC to the ELAN subnet. Contact Center supports two network interface cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center ELAN NIC and ELAN subnet are optional.

Procedure

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 network 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.

Configuring the binding order

Before you begin

- Install two network interface cards on the Contact Center server.
- Disable the NetBIOS on the ELAN network interface card.
- Connect the Contact Center server network interface card to the contact center subnet.
- Connect the Contact Center server ELAN network interface card to the ELAN subnet.

About this task

Configure the binding order of the network cards. The contact center subnet network interface card must be bound first and then the ELAN network interface card.

Procedure

1. Choose **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center**.
2. Click **Change adapter settings**.
3. In the **Network Connections** window, press the **ALT** key.
   A hidden menu appears.
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.

Installing the Contact Center Manager Server software

Before you begin

- If you install Contact Center Manager Server software with an Avaya Communication Server 1000 PABX, ensure the PABX is configured. See *Avaya Aura® Contact Center Configuration – Avaya CS 1000 Integration* (NN44400-512).
- 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.
- 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.

About this task

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

Procedure

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 on page 46.
4. On the **Welcome** window, click **Next**.
5. On the **End-User 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 the Multiplicity feature which you can license and configure later.
10. Click **Next**.
11. On the **Product Data Upgrade** window, click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, accept the default location for the **Application Destination Drive**.
13. Click the **Database Destination Drive** tab.
14. Under **Install Manager Server Database to**, select the drive for the Contact Center Manager Server database.
15. Click the **Product Updates Location** tab.
16. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
17. Click **Next**.

The System Readiness Check utility runs on the server.

18. 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.

19. Click **Next**.
20. 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.

21. Click **Next**.
22. On the **Summary** window, review and verify the information.
23. Click **Install**.
24. After the installation is complete, click **Finish**.
25. If you are prompted, restart the server.
26. Disable Java Runtime Environment (JRE) updates. See Disabling Java Runtime Environment updates on page 279.

    Important:

    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.

Procedure job aid

Application Selection window variables

The following table provides a list of common Application Selection window variable definitions.

Name	Description
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. Select this option when integrating Avaya

Name	Description
	Aura® Contact Center with an AML-based Avaya Communication Server 1000. The term AML refers to the connection between CCMS and the CS 1000. • SIP - Avaya Communication Server 1000. • SIP - Avaya Aura® 5.2. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform Release 5.2 or an Avaya Aura® Midsize Business Template Release 5.2.1. • SIP - Avaya Aura® 6.1. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform Release 6.1 or 6.2, or an Avaya Aura® Solution for Midsize Enterprise Release 6.1 or 6.2. • No Switch Configured. Select this option when installing Avaya Aura® Contact Center as a multimedia addition to Avaya Aura® Call Center Elite, or when installing Avaya Aura® Contact Center to support only multimedia contacts.
Install Type	The Installation Type is disabled. Multimedia and Voice is set as the default installation type when you select any switch type. When none of the switch types are selected then Non Voice Multimedia is set as the default installation type. • 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.
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

Comments? infodev@avaya.com

Name	Description
	drive in the `Avaya\Contact Center \Database\CCMS folder`.
Product updates location	The parent directory in which your administrator downloads the software patches.

CCMS tab variables

The following table provides a list of common Contact Center Manager Server CCMS tab specific variables.

Name	Description
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 234.5.6.10.
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.

Licensing tab variables

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

Name	Description
License File Location	The folder on the server which contains the license file.
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.
CCMS Package	The installation package indicates the licenses that you have purchased. • Essential—For small voice-only contact centers. • Nodal Enterprise—For single-site contact centers. • Corporate Enterprise—For multi-site contact centers.
Optional Package	You must choose the package you have purchased. Some packaged features include the following: • Open Interfaces Universal Networking—Use Network Skill-Based Routing to route voice 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.

Name	Description
	Instant Messaging is available only on SIP Avaya Communication Server 1000. • 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.
Switch Serial Number	In an AML-based Contact Center, this is the serial number for the Avaya Communication Server 1000. You must obtain the serial number from your distributor. This value is not used in SIP-enabled contact centers.

CS1000 tab variables

The following table provides a list of AML-based Avaya Communication Server 1000-specific variables, as used on the CS1000 tab.

Name	Description
Switch Name	The name of the AML Avaya Communication Server 1000 telephone switch. 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

Name	Description
	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.

SIP-Network tab variables

The following table provides a list of configuration variables specific to the SIP-Network.

Name	Description
SIP Voice Proxy Server	Information about the server that provides support for inbound and outbound calls, such as routing a call to an agent telephone.
• **IP Address**	If the contact center uses an Avaya Communication Server 1000 Network Routing Service (NRS), enter the IP address for it here. If the contact center uses an Avaya Aura® Session Manager, enter the IP address for the primary Avaya Aura® Session Manager here. If the contact center uses an Avaya Aura® SIP Enablement Services (SES) server, enter the IP address for it here.
• **Port**	The server listening port. The default port is 5060.
• **Network Transport**	The SIP Network Transport communication protocol. Avaya recommends that you use TCP for Avaya Communication Server 1000.
SIP CTI Proxy Server	Information about the server that provides support for SIP Computer Telephony Integration (CTI) so that Agent Desktop can

Name	Description
	acquire and control agent telephones for TR87.
• **IP Address**	If the contact center uses an Avaya Communication Server 1000 Signaling Server, enter the IP address for it here. If the contact center uses an Avaya Aura® Application Enablement Services server, enter the IP address for it here.
• **Port**	For an Avaya Communication Server 1000 the default SIP CTI Proxy Server port is 5060. For an Avaya Aura® Application Enablement Services server the default SIP CTI Proxy Server port is 4723.
• **Network Transport**	The SIP Network Transport communication protocol. For an Avaya Communication Server 1000, the default Network Transport communication protocol is TCP. For an Avaya Aura® Application Enablement Services server, the default Network Transport communication protocol is TLS.
Backup SIP Voice Proxy Server	Information about the server that provides backup support for inbound and outbound calls, such as routing a call to an agent telephone. Avaya Aura® Contact Center must have a Standby Server license to support a Backup Voice Proxy Server. The only type of Backup Voice Proxy Server supported by Avaya Aura® Contact Center is an Avaya Aura® Session Manager when it used with an Avaya Aura® Communication Manager.
• **IP Address**	If the contact center uses an Avaya Aura® Communication Manager and a backup Avaya Aura® Session Manager, enter the IP address for the backup Avaya Aura® Session Manager here.
• **Port**	The server listening port. The default port is 5060.
• **Network Transport**	The Backup Voice Proxy Server transport protocol.

Name	Description
SIP IM Proxy Server	Information about the server that supports the deployment of Instant Message over SIP. Select the Avaya Aura® 6.1 switch type to enable the IM Provider box. The SIP IM Proxy Server IP, Port, and Network Transport boxes are enabled only if you select the Instant Messaging option on the Licensing tab.
• **IM Provider**	From the IM Provider list, select the name of the instant messaging provider. Select either Aura Presence Services or Microsoft OCS.
• **XMPP Domain**	If using an Avaya Aura® Presence Services server, enter the domain name of the Extensible Messaging and Presence Protocol (XMPP) server. The XMPP Domain name must be different to the Local SIP Subscriber Domain Name.
• **IP Address**	The IP address of the SIP IM Proxy Server.
• **Port**	The default SIP IM Proxy Server for Avaya Aura® Presence Services is port 5222.
• **Network Transport**	The SIP IM Proxy Server transport protocol.

SIP-Server tab variables

The following table provides a list of common SIP-Server variable definitions.

Name	Description
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**	The registration user name on the registration proxy. Use a suitable user name following the standards in your system.
• **Domain Name**	Associated domain name for the SIP-enabled contact center. Typically the Avaya Aura® Contact Center SIP Domain Name matches your Active Directory domain name. If the Avaya Aura® Contact Center SIP Domain Name does not match the Active

Name	Description
	Directory domain name then it must match one of the following: • The SIP Enablement Services SIP domain name. • The Session Manager contact center SIP domain name. • The Avaya Communication Server 1000 NRS SIP contact center domain name. The Local SIP Subscriber Domain Name must be different to the XMPP Domain name.
• **Password**	Password for the registration user name.
• **Confirm Password**	Re-enter password for the registration user name.
Web Service Ports	The Web Service Ports group box appears only if you select Avaya Aura® Presence Services as the IM Provider. Server Port default is 9100. Client Port default is 9120.
SIP Server Type	Type of SIP proxy for the contact center integration. Depending on the switch type you select in the Application Selection window, the system automatically sets the specific SIP Server Type as the default. • For SIP Avaya Aura® 6.1 switch type, the default SIP Server Type is Avaya Aura® 6.1. • For SIP Avaya Communication Server 1000 switch type, the default SIP Server Type is CS1000.
MS Locale	Locale (including language and dialects) of the system environment.
Local Listening Ports	The SIP Communication protocol accepted by the system for incoming calls. TCP/UDP Port default is 5060. TLS Port default is 5061.

CCT Server tab variables

The following table provides a list of CCT-specific variables. The CCT server tab is visible only when the Open Queue feature is selected from the list of Optional Packages on the Licensing tab.

Name	Description
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.

Example of installing CCMS software

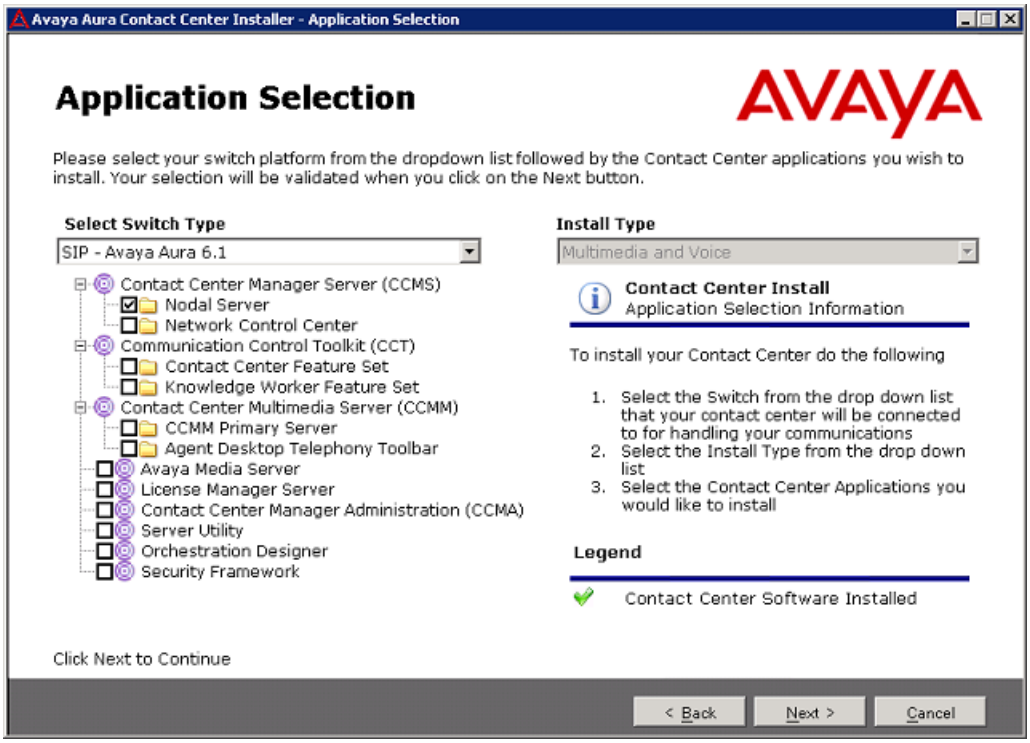


Figure 8: Example of installing Contact Center Manager Server software

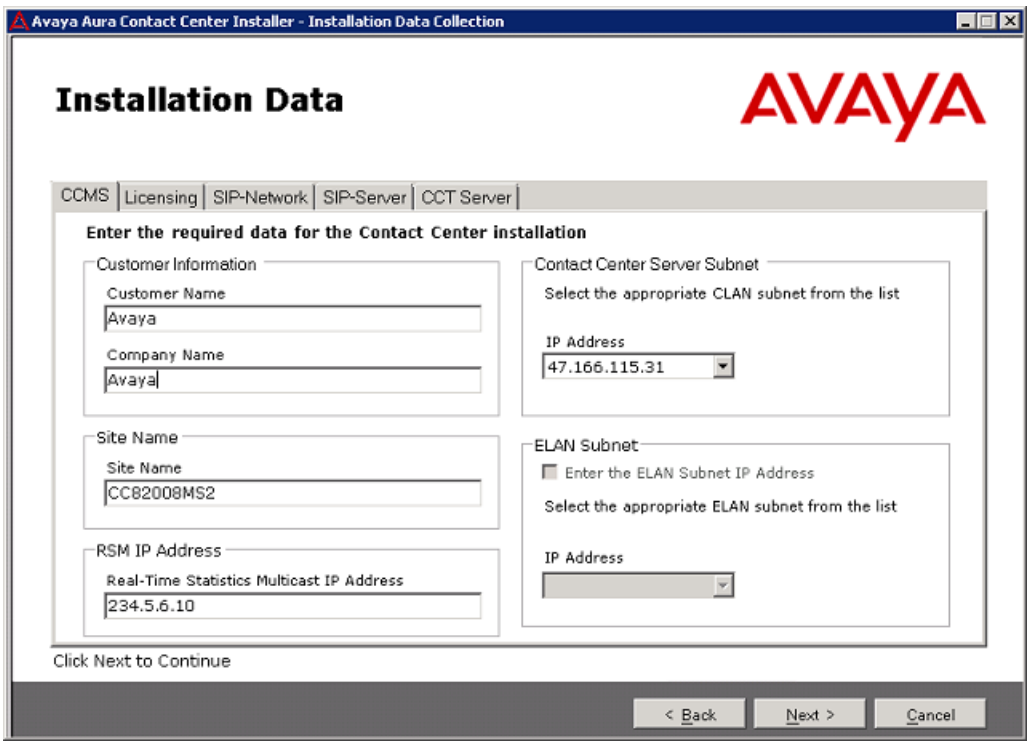


Figure 9: Example of installing Contact Center Manager Server software - Installation Data

Chapter 6: Network Control Center software installation

This chapter describes how to install the Network Control 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 on page 23.
- Partition the server hard disk 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

About this task

This task flow shows you the sequence of procedures you perform to install Network Control Center software on your server.

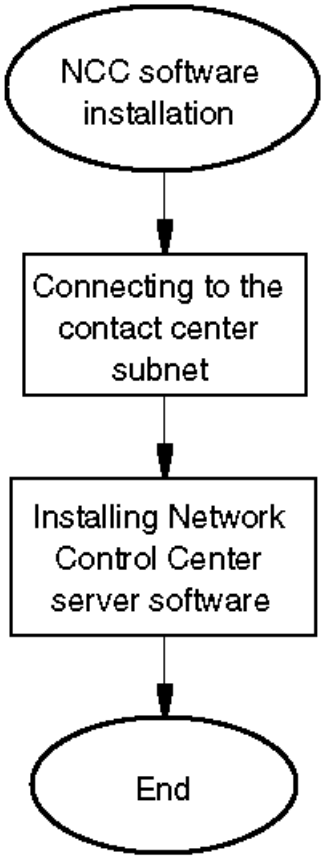


Figure 10: NCC software installation procedures

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.

Connecting to the contact center subnet

About this task

Connect the Contact Center 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

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.

Installing the Network Control Center server software

Before you begin

- 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 CS 1000 Integration* (NN44400-512).
- 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.

About this task

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

Procedure

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 on page 61.

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 **AML — Avaya Communication Server 1000**.

   Note:

   Network Control Center is platform independent. Select the AML — Avaya Communication Server 1000 switch type option, regardless of the switch type used in your Contact Center.
9. Under **Contact Center Manager Server (CCMS)**, select **Network Control Center**.
10. Click **Next**.
11. On the **Product Data Upgrade** window, click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Database Destination Drive** tab.
14. Under **Install Manager Server database to**, select the drive for the Contact Center Manager Server database.
15. Click the **Product Updates Location** tab.
16. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
17. Click **Next**.
    The System Readiness Check utility runs on the server.
18. 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.
19. Click **Next**.
20. On the **Installation Data** window, type the installation details for each tab.
21. Click **Next**.
22. On the **Summary** window, review and verify the information.

23. Click **Install**.
24. After the installation is complete, click **Finish**.
25. If you are prompted, restart the server.

Procedure job aid

Network Control Center variables

The following table provides a list of common Network Control Center variable definitions.

Name	Description
Application destination drive	The location to install the Network Control Center software. You must install the NCC software to `D:\Avaya \Contact Center`.
Database destination drive	The location to install the Network Control Center Caché database. Install the NCC 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 Network Control Center software.
Company Name	The name of the company using the Network Control Center software.
Site Name	The site name for the Network Control Center. 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, and optional Contact Center Multimedia) are connected.

Licensing tab variables

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

Name	Description
License File Location	The folder on the server which contains the license file.
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.
CCMS Package	The installation package indicates the licenses that you have purchased. • Essential—For small voice-only contact centers. • Nodal Enterprise—For single-site contact centers. • Corporate Enterprise—For multi-site contact centers.
Optional Package	You must choose the package you have purchased. Some packaged features include the following: • Open Interfaces Universal Networking—Use Network Skill-Based Routing to route voice 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.

Name	Description
	Instant Messaging is available only on SIP Avaya Communication Server 1000. • 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.
Switch Serial Number	In an AML-based Contact Center, this is the serial number for the Avaya Communication Server 1000. You must obtain the serial number from your distributor. This value is not used in SIP-enabled contact centers.

Chapter 7: 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.

Avaya Aura® Contact Center License Manager supports two license file mechanisms: PLIC or WebLM. Avaya Aura® Contact Center software installs all the components required for both types of license file mechanisms. You can obtain a PLIC license file from the Avaya Keycode Retrieval System (KRS) or you can obtain a WebLM license file from the Avaya Product Licensing and Delivery System (PLDS).

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, or on the Network Control Center (NCC) server. 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 on page 23.
- Ensure that your new Contact Center license file is available.

License Manager installation tasks

About this task

This task flow shows you the sequence of procedures you perform to install the License Manager software on a server.

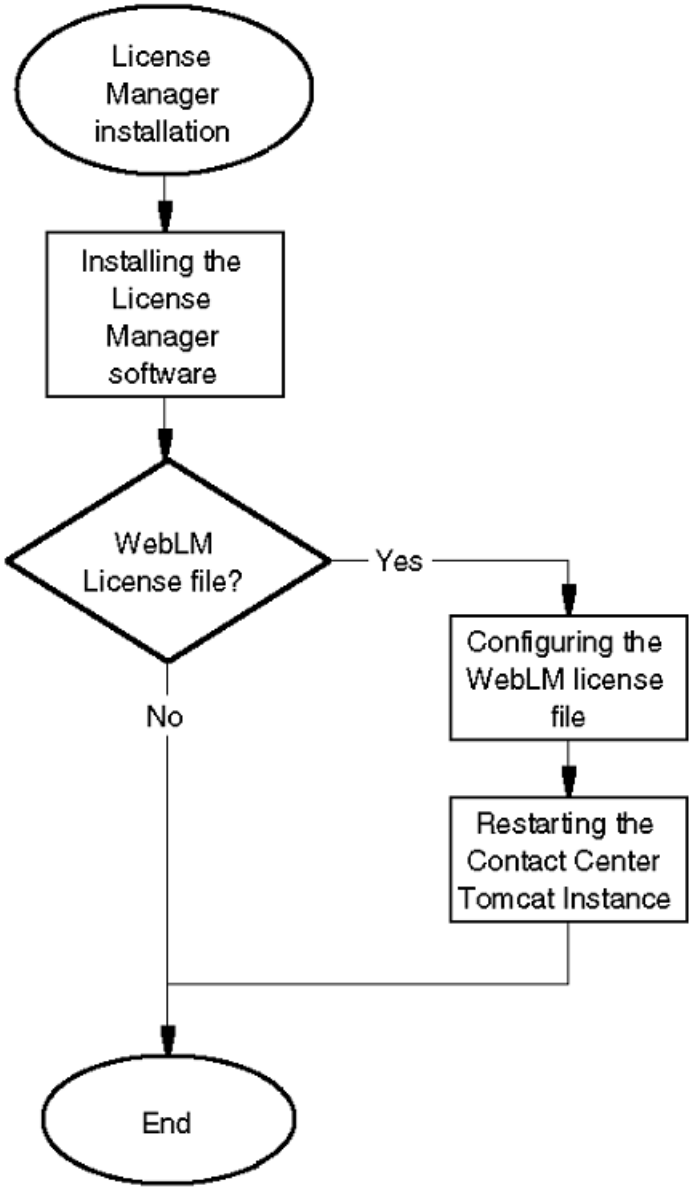


Figure 11: License Manager installation procedures

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

Before you begin

- Download the latest License Manager patches to the server.
- 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.

About this task

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

Procedure

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 on page 69.
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 on page 69.
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. In the **Application Selection** window, select **License Manager Server**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.

16. On the **Installation Data** window, type the installation details on the **License Manager** tab.
17. Click **Next**.
18. On the **Summary** window, review and verify the information.
19. Click **Install**.
20. After the installation is complete, click **Finish**.
21. If prompted, restart the server.

Important:

If you use the WebLM license file, you must restart your Contact Center Tomcat server after installation.

Variable definitions

Name	Description
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. **Important:** Do not change the name of 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.

Name	Description
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.

Configuring the WebLM license file

Before you begin

- Install the Contact Center License Manager server software.
- Restart the Contact Center License Manager server.

About this task

Configure Contact Center License Manager to use a WebLM file.

Note:

When you install Contact Center License Manager, an instance of Apache Tomcat Server is also installed on the same server. The default port number for Apache Tomcat is 8081. If you need to change the port number to avoid conflicts with third-party software, see your Apache Tomcat documentation.

Procedure

1. Log on to the server where the Contact Center License Manager software is installed.
2. Click **Start** > **All Programs** > **Avaya** > **Contact Center** > **License Manager** > **Configuration**.
3. On the Configuration page, click **Browse**.
4. View the type of license file currently used, and then click **OK**.
5. Navigate the file system and locate the WebLM license file.
6. Click **Open**.
7. Click **Apply**.
8. At the prompt, click **Yes** to restart the Contact Center License Manager services.
9. Click **OK** to close the window.
10. Click **Exit**.

Restarting the Contact Center Tomcat Instance

Before you begin

Apply the WebLM license file using the Contact Center License Manager Configuration utility.

About this task

Restart the Contact Center Tomcat Instance on the Contact Center License Manager server to commission the WebLM license file for the first time.

Procedure

1. Log on to your Contact Center License Manager server.
2. On the Start menu, choose **All Programs** > **Administrative Tools** > **Services**.
3. Right-click the **Contact Center Tomcat Instance** service, and click **Stop**.
4. Right-click the **Contact Center Tomcat Instance** service, and click **Start**.
5. Close the services window.

Chapter 8: Server Utility software installation

This chapter describes how to install the Avaya Aura® Contact Center server 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 on page 23.
- Ensure that your new Contact Center license file is available.

Server Utility software installation tasks

About this task

This task flow shows you the sequence of procedures you perform to install the Server Utility software on a server.

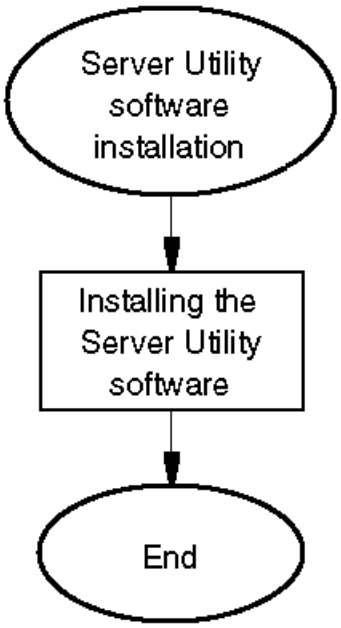


Figure 12: Server Utility software installation procedures

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

Before you begin

- Download the latest Server Utility and common component patches to the server.
- If you install Contact Center Manager Server Utility as part of a co-resident installation, ensure all prerequisites are met for all Contact Center applications that you install on this server.

About this task

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.

Procedure

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 on page 75.
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 on page 75.
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. Select **Server Utility**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.
16. On the **Summary** window, review and verify the information.
17. Click **Install**.
18. After the installation is complete, click **Finish**.
19. If prompted, restart the server.

Variable definitions

Name	Description
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® 5.2. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform Release 5.2 or an Avaya Aura® Midsize Business Template Release 5.2.1. • SIP - Avaya Aura® 6.1. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform 6.1 or 6.2, or an Avaya Aura® Solution for Midsize Enterprise 6.1 or 6.2. • No Switch Configured. Select this option when installing Avaya Aura® Contact Center as a multimedia addition to Avaya Aura® Call Center Elite, or when installing Avaya Aura® Contact Center to support only multimedia contacts.

Chapter 9: 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 perform significant reporting in your contact center, or co-resident with Contact Center Manager Server (CCMS) software.

CCMA stores configuration data in a Microsoft Active Directory - Lightweight Directory Services (AD-LDS) data store. Contact Center Manager Administration (CCMA) redundancy is provided by the addition of a replication or standby CCMA server. 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.

If you want CCMA resiliency you must install a primary CCMA server and a replicating CCMA server. The replicating or standby CCMA server replicates AD-LDS contents from the primary CCMA server.

Important:

AD-LDS replication must be enabled only on the Standby CCMA server.

A CCMA replication solution contains a primary CCMA server and a standby CCMA server. Install the primary CCMA server with “Enable CCMA Replication” not selected. Install the standby CCMA server with “Enable CCMA Replication” selected. The standby CCMA server replicates the primary CCMA server AD-LDS contents.

The primary CCMA server is always the primary CCMA server. If the primary CCMA server fails, the standby CCMA is still a standby CCMA, they do not switch roles. To restore CCMA solution resiliency, you must repair and reinstate the primary CCMA server, or install a new primary CCMA server using the same details as the previous primary CCMA server.

CCMA can administer multiple CCMS servers, including Avaya NES Contact Center Release 6.0 CCMS servers. Avaya NES Contact Center Release 6.0 CCMS uses a Sybase database. If you plan to use CCMA to manage or report against an Avaya NES Contact Center Release 6.0 CCMS server, you must install Sybase Open Client software on the CCMA server.

Prerequisites to CCMA primary server software installation

- Prepare your server for software installation. See Server preparation on page 23.
- Partition the server hard disk 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

About this task

This task flow shows you the sequence of procedures you perform to install Contact Center Manager Administration software on your server.

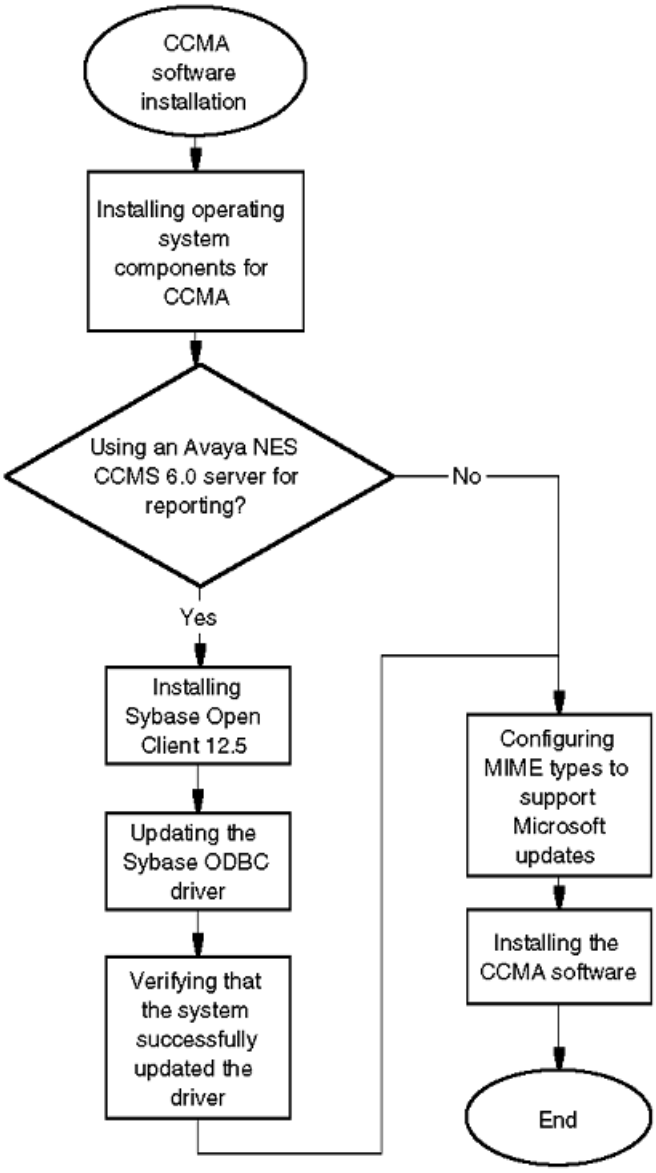


Figure 13: CCMA software installation procedures

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 you begin

- Install Windows Server 2008 64-bit Release 2.

About this task

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

Procedure

1. Choose **Start** > **Administrative 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. Under **Application Server**, select **Role Services**.
9. 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 **Introduction to Web Server (IIS)** 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

Important:

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

    Important:

    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

    Important:

    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

    Important:

    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.

Installing Sybase Open Client 12.5

Before you begin

- 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.

About this task

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.

Procedure

1. Log on to 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.

Updating the Sybase ODBC driver

Before you begin

- Install Sybase Open Client 12.5.

About this task

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.

Procedure

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**.

Variable definitions

Name	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

Before you begin

- Update the Sybase ODBC driver.

About this task

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.

Procedure

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 if any error messages were recorded during the xcopy command.

Configuring MIME types to support Microsoft updates

About this task

Configure the Multipurpose Internet Mail Extension (MIME) types to support Microsoft updates and patches.

Procedure

1. Log on to the Contact Center Manager Administration server.
2. Click **Start** > **Administrative Tools** > **Computer Management**.
3. In the **Computer Management** dialog box, expand **Services and Applications** > **Internet Information Services** > **IIS Manager** > **Sites**.
4. Select **Default Web Site**.
5. Under **IIS**, select **MIME Types**.
6. Double-click **MIME Types**.
7. On the **Actions** list on the right, click **Add**.
8. In the **File name extension** box, type **.msp**.
9. In the **MIME Type** box, type **application/microsoftpatch**.
10. Click **OK**.
11. On the **Actions** list on the right, click **Add**.
12. In the **File name extension** box, type **.msu**.
13. In the **MIME Type** box, type **application/microsoftupdate**.
14. Click **OK**.
15. Close the **Computer Management** window.

Installing the Contact Center Manager Administration primary server software

Before you begin

- 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.

About this task

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

Important:

AD-LDS replication must be disabled on the primary CCMA server.

Procedure

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 on page 86.
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 on page 86.
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. Select **Contact Center Manager Administration (CCMA)**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.
    The System Readiness Check utility runs on the server.
16. 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.
17. Click **Next**.
18. On the **Installation Data** window, type the installation details for each tab.
19. Clear **Enable CCMA Replication**.
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 on page 279.

Important:

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.

Variable definitions

Name	Description
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	Clear this check box on the primary CCMA 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 389. If CCMA is installed co-resident with Security Framework or Avaya Media Server, the default 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 636. If CCMA is installed co-resident with Security Framework or Avaya Media Server, the default port is 6366. Check with the system administrator to ensure that the port number is not already in use.
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.

Procedure job aid

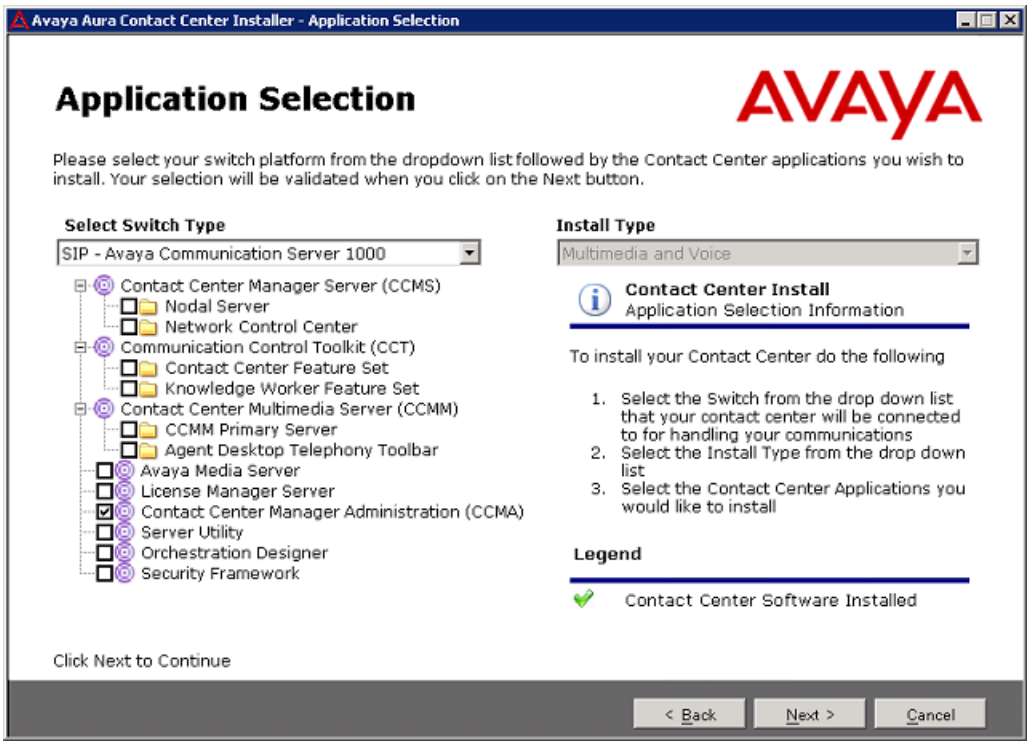


Figure 14: Example of installing Contact Center Manager Administration software

Chapter 10: Orchestration Designer software installation

This chapter describes how to install the Orchestration Designer software on a server so that you can create, implement, test, and document flows for routing voice and multimedia contacts.

Prerequisites to Orchestration Designer software installation

- Prepare your server for software installation. See Server preparation on page 23.

Orchestration Designer software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install the Orchestration Designer software on a server.

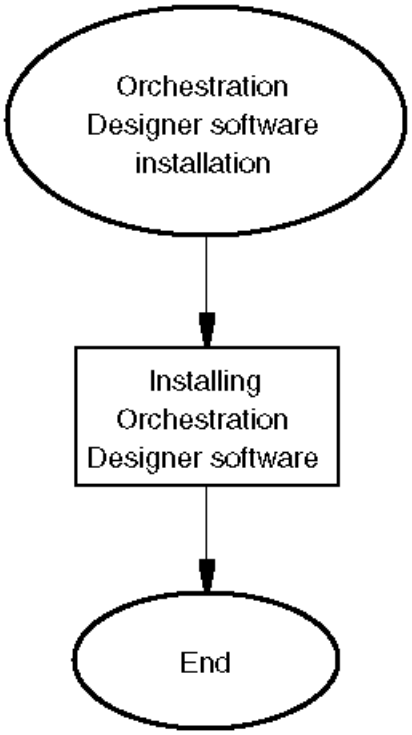


Figure 15: Orchestration Designer software installation procedures

Job aid: Installation time

The estimated time to install the Orchestration Designer 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 Orchestration Designer software

Before you begin

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

About this task

Install the Orchestration Designer software on a server.

Procedure

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 on page 93.
4. On the **Welcome** window, click **Next**.
5. If you already installed a Contact Center Release 6.2 server software application on this server, click **Add a Component**, and then skip to step 8 on page 93.
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. Select **Orchestration Designer**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.
16. On the **Ready to Install** window, review and verify the information.
17. Click **Install**.

18. After the installation is complete, click **Finish**.
19. If you are prompted, restart the server.

Variable definitions

Name	Description
Application destination drive	The location to install the Orchestration Designer software.
Product Updates Location	The parent directory in which your administrator downloads the software patches.

Chapter 11: 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 Avaya Communication Server 1000 and Avaya Media Server applications.

You can install Security Framework co-resident with Contact Center Manager Administration. If you use the Security Framework software for more than one application, install the Security Framework on a standalone server.

Important:

Security Framework is not supported co-resident with Avaya Media Server.

Prerequisites to Security Framework software installation

- Prepare your server for software installation. See Server preparation on page 23.
- Partition the server hard disk 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

About this task

This task flow shows you the sequence of procedures you perform to install the Security Framework software.

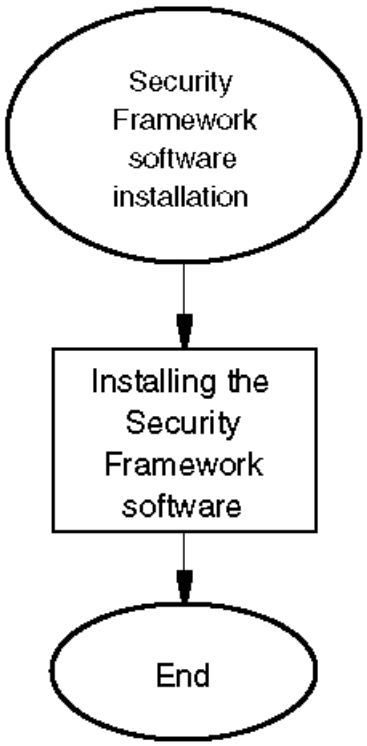


Figure 16: Security Framework software installation procedures

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

Before you begin

- Download the most recent Security Framework and common component patches to the server.
- 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.
- Ensure the server Primary DNS suffix is configured.

About this task

Install the Security Framework software on one server.

Procedure

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 on page 97.
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 on page 97.
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. Select **Security Framework**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.

15. Click **Next**.
16. On the **Installation Data** window, type the installation details for each tab.
17. Click **Next**.
18. On the **Ready to Install** window, review and verify the information.
19. Click **Install**.
20. After the installation is complete, click **Finish**.
21. If prompted, restart the server.

Variable definitions

Name	Description
Application destination drive	The location to install the Security Framework 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 389. 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 636. Check with

Name	Description
	the system administrator to ensure that the port number is not already in use.

Chapter 12: 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 on page 23.
- Partition the server hard disk 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.

Important:

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

About this task

This task flow shows you the sequence of procedures you perform to install the Communication Control Toolkit software on a server.

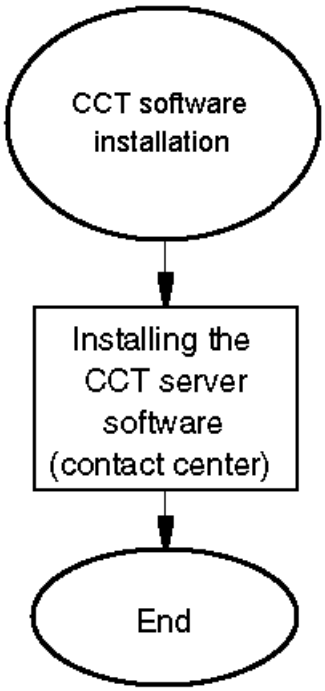


Figure 17: CCT software installation (contact center) procedures

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)

Before you begin

- Download the most recent Communication Control Toolkit and common component patches to the server.
- 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.

About this task

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

Note:

Installation of this component installs Apache Tomcat Server. The default port number for Apache Tomcat is 8081. If you need to change the port number to avoid conflicts with third-party software, see your Apache Tomcat documentation.

Procedure

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 on page 103.
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 on page 103.
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 11 on page 104.
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 **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**.
    The System Readiness Check 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. 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 on page 279.

    Important:

    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.

Comments? infodev@avaya.com

Variable definitions

Name	Description
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.

Procedure job aid

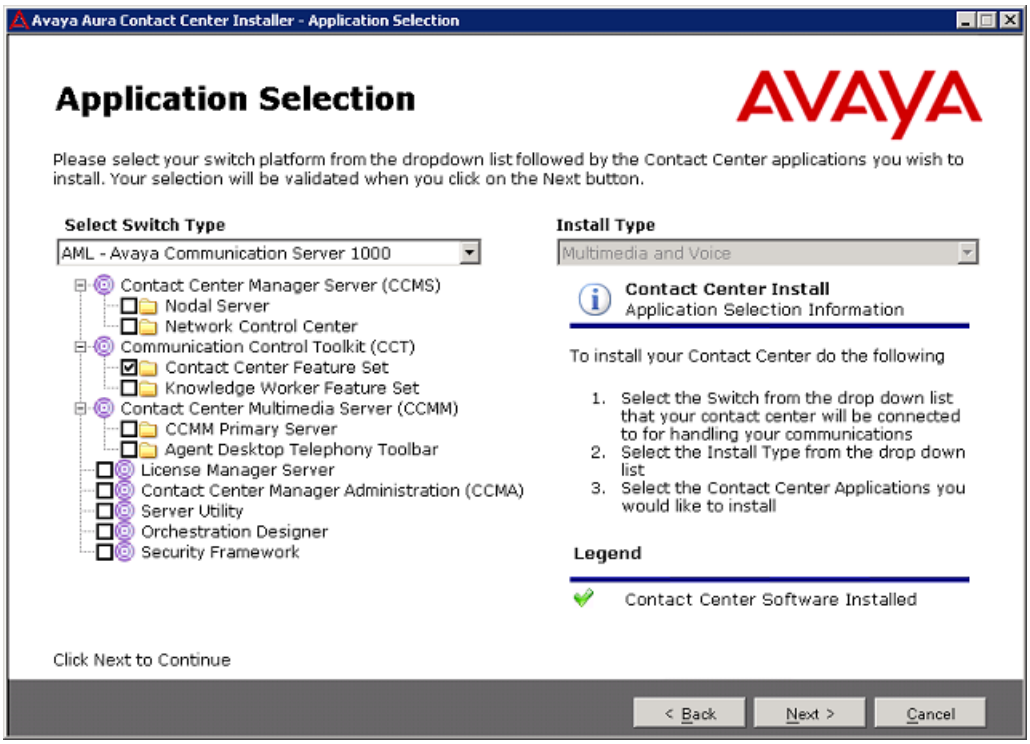


Figure 18: Example of installing Communication Control Toolkit software

Comments? infodev@avaya.com

Chapter 13: 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 on page 23.
- Download the most recent CCMM patches.
- Ensure that your new Contact Center license file is available.

Agent Desktop Telephony Toolbar software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install the Agent Desktop Telephony Toolbar software on your server.

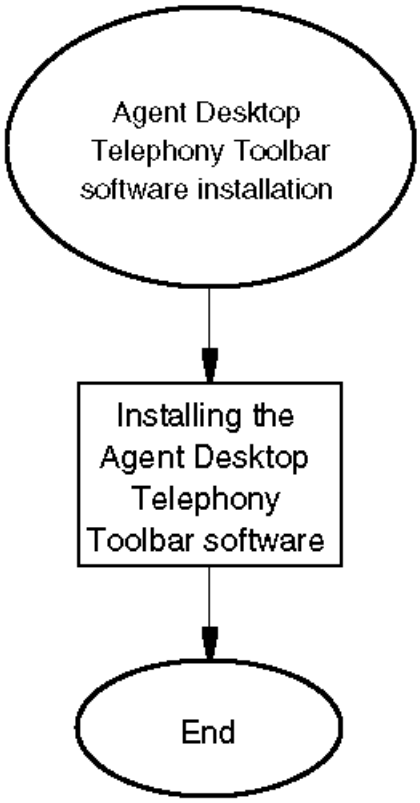


Figure 19: Telephony Toolbar software installation procedures

Job aid: Installation time

The estimated time to install the Agent Desktop Telephony Toolbar 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

Before you begin

- Ensure that no instance of Contact Center Multimedia is planned for your network.
- Download the most recent patches to the server.

About this task

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

Procedure

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 on page 109.
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 on page 109.
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 **Contact Center Multimedia Server (CCMM)**, select **Agent Desktop Telephony Toolbar**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.
    The System Readiness Check utility runs on the server.

16. 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.
17. Click **Next**.
18. On the **Installation Data** window, type the installation details for the tab.
19. Click **Next**.
20. On the **Ready to Install** window, review and verify the information.
21. Click **Install**.
22. After the installation is complete, click **Finish**.
23. If you are prompted, restart the server.

Variable definitions

Name	Description
Application destination drive	The drive on which the Contact Center Multimedia or Communication Control Toolkit 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 used in your network.
Web Stats Server Name	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.

Chapter 14: 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 on page 23.
- Partition the server hard disk 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.

Important:

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

About this task

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.

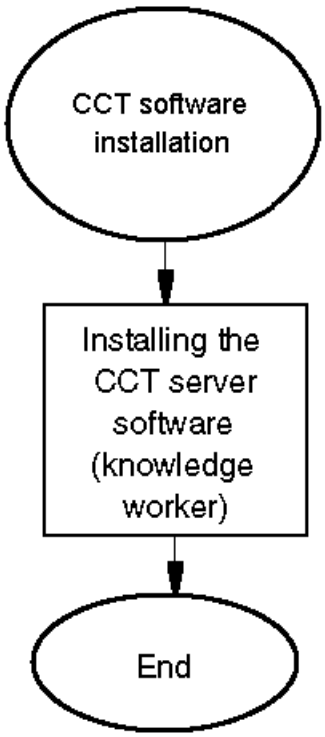


Figure 20: CCT software installation (knowledge worker) procedures

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)

Before you begin

- Install the License Manager server software on the server on which you plan to install Communication Control Toolkit. See License Manager installation on page 67.
- Download the most recent Communication Control Toolkit and common component patches to the server.

About this task

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

Note:

Installation of this component installs Apache Tomcat Server. The default port number for Apache Tomcat is 8081. If you need to change the port number to avoid conflicts with third-party software, see your Apache Tomcat documentation.

Procedure

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 on page 113.
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 on page 113.
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 **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.

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 Communication Control Toolkit Database to**, select the drive for the Communication Control Toolkit 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 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. In the **Summary** window, confirm all information is correct.
22. Click **Install**.
23. After the installation is complete, click **Finish**.
24. If prompted, restart the server.
25. Disable Java Runtime Environment (JRE) updates. See Disabling Java Runtime Environment updates on page 279.

Important:

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.

Variable definitions

Name	Description
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.

Chapter 15: 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. 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 standalone 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.

Important:

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

Important:

If you are installing CCMM on a Contact Center server that already has Agent Desktop Telephony Toolbar installed, you must first uninstall Avaya Media Server (if present), License Manager, and Agent Desktop Telephony Toolbar. In this case, when installing CCMM, also install License Manager and Avaya Media Server (if required).

Prerequisites to CCMM software installation

- Prepare your server for software installation. See Server preparation on page 23.
- Partition the server hard disk drives as required. For more information, see *Avaya Aura® Contact Center Planning and Engineering* (NN44400-210).
- Install Internet Information Service (IIS).
- 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 Contact Center Manager Server, Contact Center License Manager and Communication Control Toolkit services are running before you begin installing CCMM software.
- Ensure that your new Contact Center license file is available.

CCMM software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install Contact Center Multimedia software on your server.

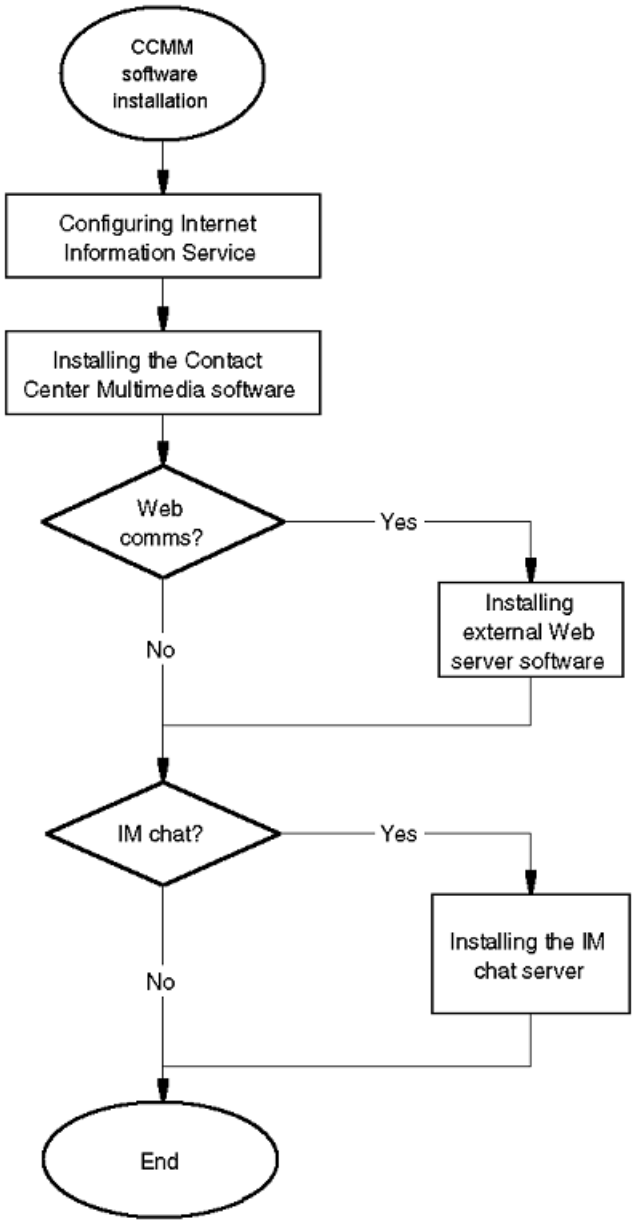


Figure 21: Contact Center Multimedia server installation procedures

Configuring Internet Information Services

Before you begin

- 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.

About this task

Configure Internet Information Services (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.

Procedure

1. Choose **Start** > **Administrative 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 **Server Roles**, select **Web Server (IIS)**.
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:
   - Static Content
   - Default Document
   - Directory Browsing
   - HTTP Errors
   - HTTP Redirection

   Important:

   All other services check boxes must be cleared.
9. 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

Important:

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

    Important:

    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

    Important:

    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.

Installing the Contact Center Multimedia server software

Before you begin

- Download the most recent Contact Center Multimedia and common component patches to the server.
- 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.

About this task

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.

Important:

If you are installing CCMM on a Contact Center server that already has Agent Desktop Telephony Toolbar installed, you must first uninstall Avaya Media Server (if present), License Manager, and Agent Desktop Telephony Toolbar. In this case, when installing CCMM, also install License Manager and Avaya Media Server (if required).

Procedure

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 on page 122.
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 on page 122.
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 **Multimedia Server (CCMM)**, select **CCMM Primary Server**.
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 Multimedia Server Database to**, select the drive for the Multimedia 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 the **CCMM - Primary 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 prompted, restart the server.
27. Disable Java Runtime Environment (JRE) updates. See Disabling Java Runtime Environment updates on page 279.

Important:

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.

Variable definitions

Name	Description
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.
IM Provider	The name of the instant messaging provider. Select either None, Microsoft OCS or Aura Presence Services. IM and presence features are supported for Avaya Aura® Presence Services server and Microsoft Office Communications Server. Avaya Aura® Presence Services server is supported with Avaya Aura® 6.1 and 6.2. Microsoft Office Communications Server is supported with Avaya Aura®, and Avaya Communication Server 1000.
Manager Server (CCMS)	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 (CCT)	The name of the server on which the Communication Control Toolkit software is installed.
Administration Server (CCMA)	The name of the server on which the Contact Center Manager Administration software is installed.
Web Reporting (Optional) Server Name	The IP address of the optional Web Reporting server.
Web Reporting (Optional) Port	The port number of the optional Web Reporting server. The default is 9090.
Inbound Mail Server (POP3)	The name of the server on which e-mail messages are received in your network.

Name	Description
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 boxes and enter the server information.
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 Based Statistics is an optional licensed feature and requires a Web Based Statistics feature license.
Web Stats Port	The port number of the Web Stats server. The default port number is 9086.
Web Communications Server (Optional)	The name of the server on which the Web Customer Interface is installed if Web communications is licensed in your contact center.

Procedure job aid

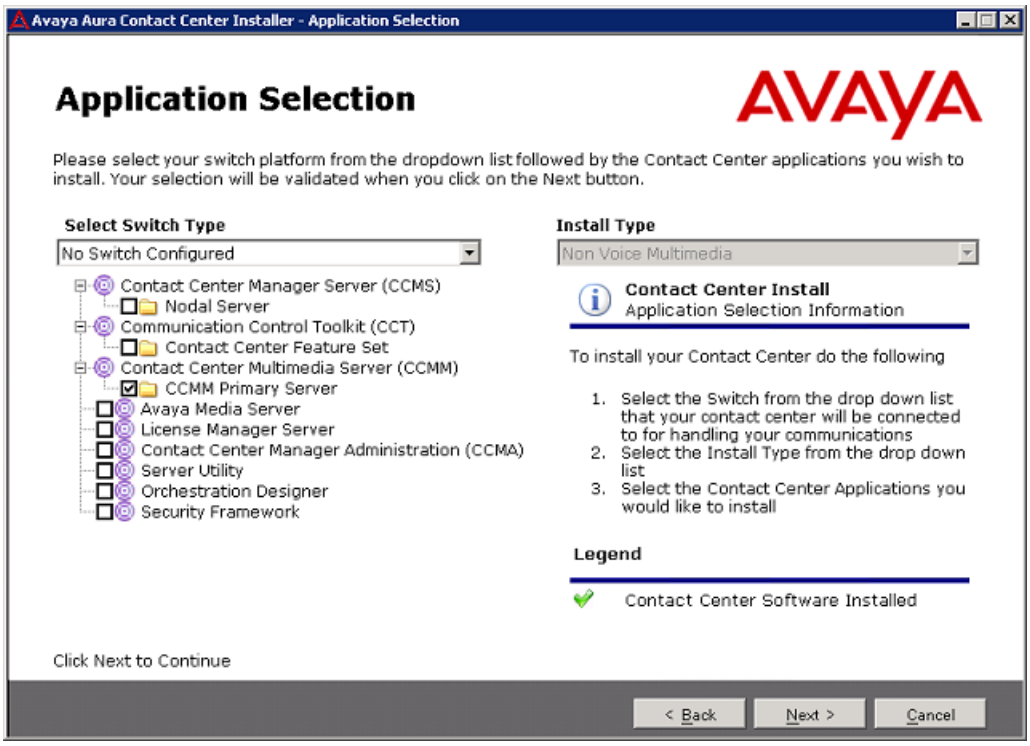


Figure 22: Example of installing Contact Center Multimedia software

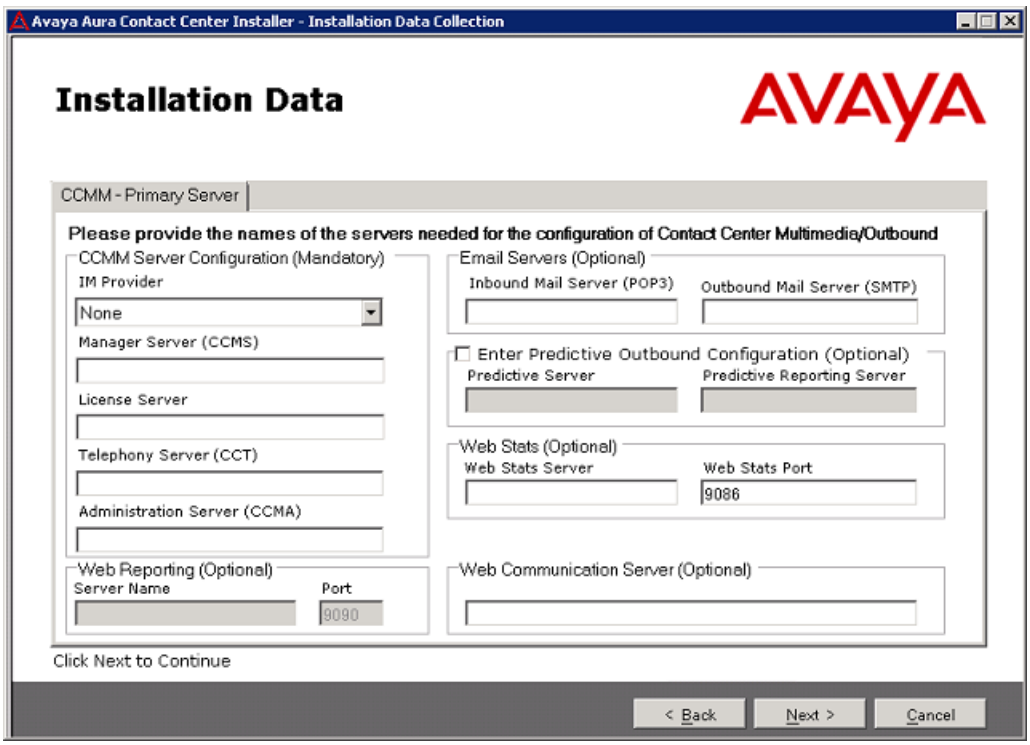


Figure 23: Example of installing Contact Center Multimedia software - Installation Data

Installing the external Web communication server software

Before you begin

- Install Contact Center Multimedia software.

About this task

If you use Web communications in your contact center, you can use the Sample Customer Interface (CI) Web site implementation to help you develop pages for your corporate Web site. The Web services architecture is a platform-independent interface that customers can access from both Microsoft .NET and Java applications. Customer Web sites or third-party applications use the open interface for integration with the Contact Center Multimedia system.

The Customer Interface Web services provide a range of methods to perform the following functions:

- Register new customers in the Contact Center Multimedia database
- Log on or log off existing customers
- Update customer logon credentials
- Create customer contacts
- Update customer details

- Read customer information
- Review a customer contact history
- Request immediate or scheduled callback requests
- Read a contact
- Create and maintain a Web communications chat session

To integrate Web Communications with the Contact Center Multimedia system, download the Avaya Aura® Contact Center Web Communications SDK package and Reference Implementation from www.avaya.com/devconnect. The Web Communications Reference Implementation contains information about customizing the Web communication application to your solution.

Important:

Do not install the Web Communications Reference Implementation on an Avaya Aura® Contact Center server. Install the Web Communications Reference Implementation on your own server in the contact center solution.

Procedure

1. Locate and download the Web Communications Reference Implementation software from www.avaya.com/devconnect.
2. Copy the Web Communications Reference Implementation software to the external Web server.
3. Follow the Reference Implementation instructions to install and commission the Web Communications server.

Installing the Instant Messaging chat server on the external Web server

Before you begin

- Install Contact Center Multimedia server software in a SIP-enabled Contact Center.
- Install the Instant Messaging license on the Contact Center License Manager.

About this task

The Instant Messaging chat server allows customers to have Instant Messaging chat sessions with the contact center. The Instant Messaging chat server uses Presence Services to gather presence information for the Agent, Supervisor and Expert.

Procedure

1. Download the **AACC6.1.1-IMChatserver.zip** file from www.avaya.com/support to the external Web server.
2. Extract the contents of the **AACC6.1.1-IMChatserver.zip** file into a directory on the external Web server.

Chapter 16: 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:

- Contact Center Manager Server (CCMS)
- Contact Center Manager Server Utility
- Contact Center License Manager
- Contact Center Manager Administration (CCMA)
- Communication Control Toolkit (CCT)
- Contact Center Multimedia (CCMM)
- Avaya Media Server

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

Contact Center Manager Server supports two Network Interface Cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center Manager Server ELAN NIC and ELAN subnet are optional.

CCMA can administer multiple CCMS servers, including Avaya NES Contact Center Release 6.0 CCMS servers. Avaya NES Contact Center Release 6.0 CCMS uses a Sybase database. If you plan to use CCMA to manage or report against an Avaya NES Contact Center Release 6.0 CCMS server, you must install Sybase Open Client software on the CCMA server.

Prerequisites to co-resident server software installation

- Prepare your server for software installation. See Server preparation on page 23.
- Copy the most recent patches for the Contact Center software.
- Partition the server hard disk 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.

Important:

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

About this task

This task flow shows you the sequence of procedures you perform to install many Contact Center server software applications on your co-resident server.

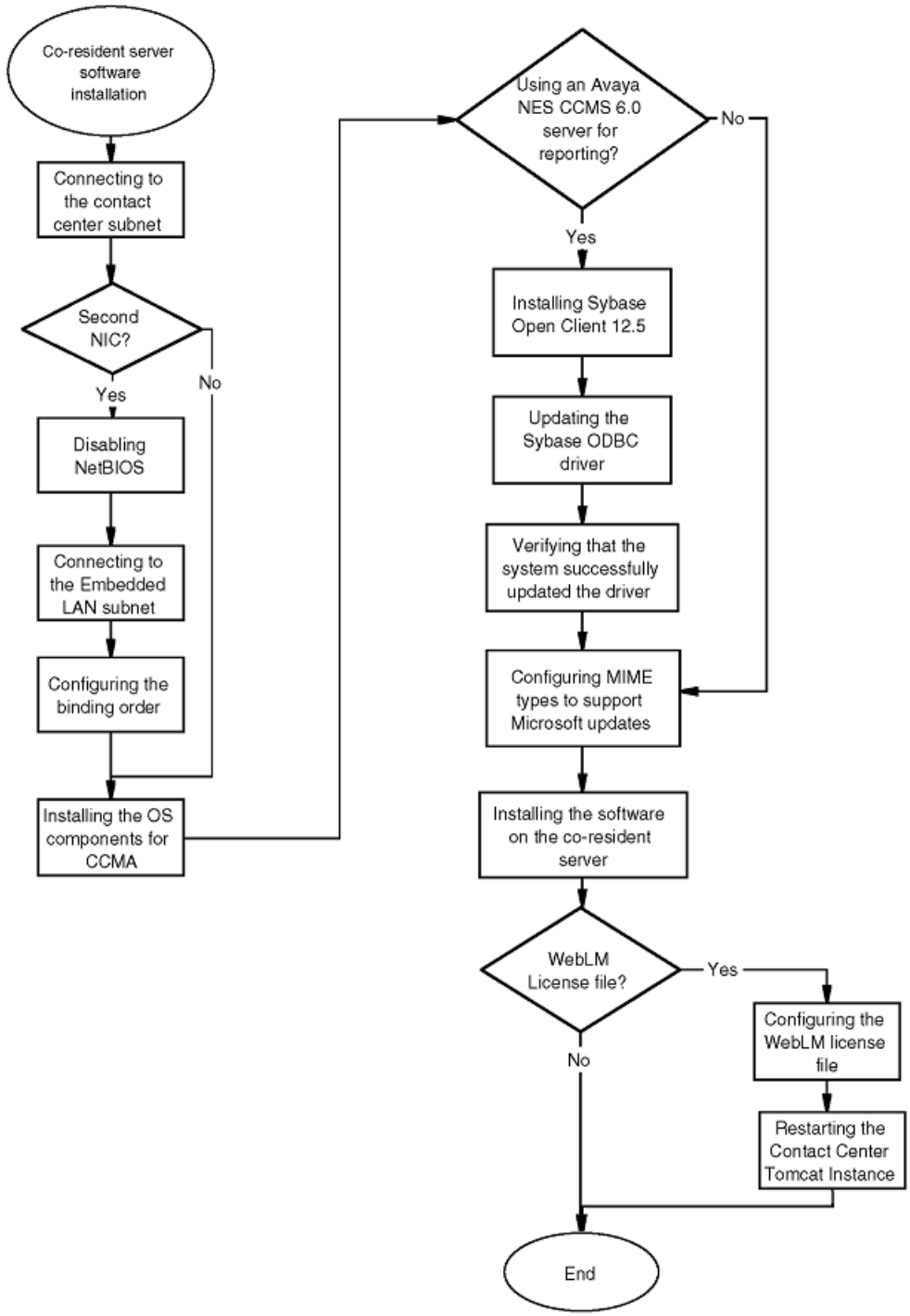


Figure 24: Co-resident server software installation procedures

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.

Connecting to the contact center subnet

About this task

Connect the Contact Center 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

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.

Disabling NetBIOS

About this task

If the Contact Center server uses two Network Interface Cards (NICs), disable NetBIOS on the Embedded LAN (ELAN) network interface card (NIC) to avoid NetBIOS conflicts.

Contact Center supports two Network Interface Cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center ELAN NIC and ELAN subnet are optional.

Procedure

1. Choose **Start** > **Control Panel** > **Network and Internet**.
2. Click **Network and Sharing Center**.

3. Click **Change adapter settings**.
4. Right-click the ELAN Network Interface Card (NIC).
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**.

Connecting the Embedded LAN subnet

Before you begin

- Install two network cards on the Contact Center server.
- Disable the NetBIOS on the ELAN network interface card.
- Connect the contact center subnet network interface card.

About this task

Connect the Embedded LAN (ELAN) NIC to the ELAN subnet. Contact Center supports two network interface cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center ELAN NIC and ELAN subnet are optional.

Procedure

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 network 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.

Configuring the binding order

Before you begin

- Install two network interface cards on the Contact Center server.
- Disable the NetBIOS on the ELAN network interface card.
- Connect the Contact Center server network interface card to the contact center subnet.
- Connect the Contact Center server ELAN network interface card to the ELAN subnet.

About this task

Configure the binding order of the network cards. The contact center subnet network interface card must be bound first and then the ELAN network interface card.

Procedure

1. Choose **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center**.
2. Click **Change adapter settings**.
3. In the **Network Connections** window, press the **ALT** key.
   A hidden menu appears.
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.

Installing operating system components for Contact Center Manager Administration

Before you begin

- Install Windows Server 2008 64-bit Release 2.

About this task

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

Procedure

1. Choose **Start** > **Administrative 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. Under **Application Server**, select **Role Services**.
9. 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 **Introduction to Web Server (IIS)** 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

    Important:

    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

Important:

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

    Important:

    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

    Important:

    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.

Installing Sybase Open Client 12.5

Before you begin

- 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.

About this task

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.

Procedure

1. Log on to 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.

Updating the Sybase ODBC driver

Before you begin

- Install Sybase Open Client 12.5.

About this task

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.

Procedure

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**.

Verifying that the system successfully updated the driver

Before you begin

- Update the Sybase ODBC driver.

About this task

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.

Procedure

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 if any error messages were recorded during the xcopy command.

Configuring MIME types to support Microsoft updates

About this task

Configure the Multipurpose Internet Mail Extension (MIME) types to support Microsoft updates and patches.

Procedure

1. Log on to the Contact Center Manager Administration server.
2. Click **Start** > **Administrative Tools** > **Computer Management**.

3. In the **Computer Management** dialog box, expand **Services and Applications** > **Internet Information Services** > **IIS Manager** > **Sites**.
4. Select **Default Web Site**.
5. Under **IIS**, select **MIME Types**.
6. Double-click **MIME Types**.
7. On the **Actions** list on the right, click **Add**.
8. In the **File name extension** box, type **.msp**.
9. In the **MIME Type** box, type **application/microsoftpatch**.
10. Click **OK**.
11. On the **Actions** list on the right, click **Add**.
12. In the **File name extension** box, type **.msu**.
13. In the **MIME Type** box, type **application/microsoftupdate**.
14. Click **OK**.
15. Close the **Computer Management** window.

Installing the server software on the co-resident server

Before you begin

- If you install Contact Center Manager Server software with an Avaya Communication Server 1000, ensure the PABX is configured. See *Avaya Aura® Contact Center Configuration – Avaya CS 1000 Integration* (NN44400-512).
- 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.

About this task

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

Note:

Installing License Manager or Communication Control Toolkit on the co-resident server installs Apache Tomcat Server. The default port number for Apache Tomcat is 8081. If you

need to change the port number to avoid conflicts with third-party software, see your Apache Tomcat documentation.

Note:

Contact Center Service Packs 5 and later include an updated version of the Avaya Media Server installation file. If you install Avaya Media Server on your co-resident server, see the Service Pack Release Notes for instructions to update Avaya Media Server.

Procedure

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 on page 143.
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 on page 143.
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 **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.
11. Under **Communication Control Toolkit (CCT)**, select **Contact Center Feature Set**.
12. Under **Contact Center Multimedia Server (CCMM)**, if applicable, select **CCMM Primary Server**.
13. Select **Avaya Media Server**, if applicable and if not installing Security Framework.
14. Select **License Manager Server**.
15. Select **Contact Center Manager Administration (CCMA)**.
16. Select **Server Utility**.
17. Click **Next**.

18. On the **Product Data Upgrade** window, click **Next**.
19. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
20. Click the **Database Destination Drive** tab.
21. Under **Select the destination drive for the Contact Center database files**, select the drive for the Contact Center Manager Server database.
22. Under **Select the destination drive for the Contact Center database files**, select the drive for the Communication Control Toolkit database.
23. Under **Select the destination drive for the Contact Center database files**, select the drive for the Contact Center Multimedia database.
24. Click the **Product Updates Location** tab.
25. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
26. Click **Next**.
    The System Readiness Check runs on the server.
27. 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.
28. Click **Next**.
29. 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.
30. Click **Next**.
31. On the **Summary** window, review and verify the information.
32. Click **Install**.
33. After the installation is complete, click **Finish**.
34. If prompted, restart the server.
35. Disable Java Runtime Environment (JRE) updates. See Disabling Java Runtime Environment updates on page 279.

Important:

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.

Important:

If you are using WebLM, you must restart the Contact Center Tomcat Instance service after installing the Contact Center software.

36. If you install Avaya Media Server on your co-resident server, follow the steps in the release notes to install the updated Avaya Media Server files.

Procedure job aid

Application Selection window variables

The following table provides a list of common Application Selection window variable definitions.

Name	Description
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. Select this option when integrating Avaya Aura® Contact Center with an AML-based Avaya Communication Server 1000. The term AML refers to the connection between CCMS and the CS 1000. • SIP - Avaya Communication Server 1000. • SIP - Avaya Aura® 5.2. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform Release 5.2 or an Avaya Aura® Midsize Business Template Release 5.2.1. • SIP - Avaya Aura® 6.1. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform Release 6.1 or 6.2, or an Avaya Aura® Solution for Midsize Enterprise Release 6.1 or 6.2. • No Switch Configured. Select this option when installing Avaya Aura® Contact Center as a multimedia addition to Avaya Aura® Call Center Elite, or when installing

Name	Description
	Avaya Aura® Contact Center to support only multimedia contacts.
Install Type	The Installation Type is disabled. Multimedia and Voice is set as the default installation type when you select any switch type. When none of the switch types are selected then Non Voice Multimedia is set as the default installation type. • 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.
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 in which your administrator downloads the software patches.

CCMS tab variables

The following table provides a list of common Contact Center Manager Server CCMS tab specific variables.

Name	Description
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

Name	Description
	(-) 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 234.5.6.10.
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.

Licensing tab variables

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

Name	Description
License File Location	The folder on the server which contains the license file.
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

Name	Description
	Manager server is used only in a corporate licensed environment.
CCMS Package	The installation package indicates the licenses that you have purchased. • Essential—For small voice-only contact centers. • Nodal Enterprise—For single-site contact centers. • Corporate Enterprise—For multi-site contact centers.
Optional Package	You must choose the package you have purchased. Some packaged features include the following: • Open Interfaces Universal Networking—Use Network Skill-Based Routing to route voice 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. • 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.
Switch Serial Number	In an AML-based Contact Center, this is the serial number for the Avaya Communication Server 1000. You must obtain the serial number from your distributor. This value is not used in SIP-enabled contact centers.

CS1000 tab variables

The following table provides a list of AML-based Avaya Communication Server 1000-specific variables, as used on the CS1000 tab.

Name	Description
Switch Name	The name of the AML Avaya Communication Server 1000 telephone switch. 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.

SIP-Network tab variables

The following table provides a list of configuration variables specific to the SIP-Network.

Name	Description
SIP Voice Proxy Server	Information about the server that provides support for inbound and outbound calls, such as routing a call to an agent telephone.
• **IP Address**	If the contact center uses an Avaya Communication Server 1000 Network Routing Service (NRS), enter the IP address for it here. If the contact center uses an Avaya Aura® Session Manager, enter the IP address for the primary Avaya Aura® Session Manager here. If the contact center uses an Avaya Aura® SIP Enablement Services (SES) server, enter the IP address for it here.
• **Port**	The server listening port. The default port is 5060.
• **Network Transport**	The SIP Network Transport communication protocol. Avaya recommends that you use TCP for Avaya Communication Server 1000.
SIP CTI Proxy Server	Information about the server that provides support for SIP Computer Telephony Integration (CTI) so that Agent Desktop can acquire and control agent telephones for TR87.
• **IP Address**	If the contact center uses an Avaya Communication Server 1000 Signaling Server, enter the IP address for it here. If the contact center uses an Avaya Aura® Application Enablement Services server, enter the IP address for it here.
• **Port**	For an Avaya Communication Server 1000 the default SIP CTI Proxy Server port is 5060. For an Avaya Aura® Application Enablement Services server the default SIP CTI Proxy Server port is 4723.
• **Network Transport**	The SIP Network Transport communication protocol. For an Avaya Communication Server 1000, the default Network Transport communication protocol is TCP. For an Avaya Aura® Application Enablement Services server, the default Network Transport communication protocol is TLS.

Name	Description
Backup SIP Voice Proxy Server	Information about the server that provides backup support for inbound and outbound calls, such as routing a call to an agent telephone. Avaya Aura® Contact Center must have a Standby Server license to support a Backup Voice Proxy Server. The only type of Backup Voice Proxy Server supported by Avaya Aura® Contact Center is an Avaya Aura® Session Manager when it used with an Avaya Aura® Communication Manager.
• **IP Address**	If the contact center uses an Avaya Aura® Communication Manager and a backup Avaya Aura® Session Manager, enter the IP address for the backup Avaya Aura® Session Manager here.
• **Port**	The server listening port. The default port is 5060.
• **Network Transport**	The Backup Voice Proxy Server transport protocol.
SIP IM Proxy Server	Information about the server that supports the deployment of Instant Message over SIP. Select the Avaya Aura® 6.1 switch type to enable the IM Provider box. The SIP IM Proxy Server IP, Port, and Network Transport boxes are enabled only if you select the Instant Messaging option on the Licensing tab.
• **IM Provider**	From the IM Provider list, select the name of the instant messaging provider. Select either Aura Presence Services or Microsoft OCS.
• **XMPP Domain**	If using an Avaya Aura® Presence Services server, enter the domain name of the Extensible Messaging and Presence Protocol (XMPP) server. The XMPP Domain name must be different to the Local SIP Subscriber Domain Name.
• **IP Address**	The IP address of the SIP IM Proxy Server.
• **Port**	The default SIP IM Proxy Server for Avaya Aura® Presence Services is port 5222.
• **Network Transport**	The SIP IM Proxy Server transport protocol.

SIP-Server tab variables

The following table provides a list of common SIP-Server variable definitions.

Name	Description
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**	The registration user name on the registration proxy. Use a suitable user name following the standards in your system.
• **Domain Name**	Associated domain name for the SIP-enabled contact center. Typically the Avaya Aura® Contact Center SIP Domain Name matches your Active Directory domain name. If the Avaya Aura® Contact Center SIP Domain Name does not match the Active Directory domain name then it must match one of the following: • The SIP Enablement Services SIP domain name. • The Session Manager contact center SIP domain name. • The Avaya Communication Server 1000 NRS SIP contact center domain name. The Local SIP Subscriber Domain Name must be different to the XMPP Domain name.
• **Password**	Password for the registration user name.
• **Confirm Password**	Re-enter password for the registration user name.
Web Service Ports	The Web Service Ports group box appears only if you select Avaya Aura® Presence Services as the IM Provider. Server Port default is 9100. Client Port default is 9120.
SIP Server Type	Type of SIP proxy for the contact center integration. Depending on the switch type you select in the Application Selection window, the system

Name	Description
	automatically sets the specific SIP Server Type as the default. • For SIP Avaya Aura® 6.1 switch type, the default SIP Server Type is Avaya Aura® 6.1. • For SIP Avaya Communication Server 1000 switch type, the default SIP Server Type is CS1000.
MS Locale	Locale (including language and dialects) of the system environment.
Local Listening Ports	The SIP Communication protocol accepted by the system for incoming calls. TCP/UDP Port default is 5060. TLS Port default is 5061.

CCT Server tab variables

The following table provides a list of CCT-specific variables. The CCT server tab is visible only when the Open Queue feature is selected from the list of Optional Packages on the Licensing tab.

Name	Description
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.

Contact Center Manager Administration variables

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

Name	Description
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 AD-LDS for backup or emergency failure. In case of server failure, a current AD-LDS 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 389. If CCMA is installed co-resident with Security Framework or Avaya Media Server, the default 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 636. If CCMA is installed co-resident with Security Framework or Avaya Media Server, the default port is 6366. Check with the system administrator to ensure that the port number is not already in use.
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.

Contact Center Multimedia variables

The following table provides a list of Contact Center Multimedia-specific variables.

Name	Description
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.
IM Provider	The name of the instant messaging provider. Select either Microsoft OCS or Aura Presence Services. IM and presence features are supported for Avaya Aura® Presence Services server and Microsoft Office Communications Server. Avaya Aura® Presence Services server is supported with Avaya Aura® 6.1 and 6.2. Microsoft Office Communications Server is supported with Avaya Aura®, and Avaya Communication Server 1000.
Manager Server (CCMS)	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 (CCT)	The name of the server on which the Communication Control Toolkit software is installed.
Administration Server (CCMA)	The name of the server on which the Contact Center Manager Administration software is installed.
Web Reporting (Optional) Server Name	The IP address of the optional Web Reporting server.
Web Reporting (Optional) port	The port number of the optional Web Reporting server. The default is 9090.
Inbound Mail Server (POP3)	The name of the server 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.

Name	Description
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 boxes and enter the server information.
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 Statistics 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 (Optional)	The name of the server on which the Web Customer Interface is installed if Web communications is licensed in your contact center.

Example of installing Co-resident server software

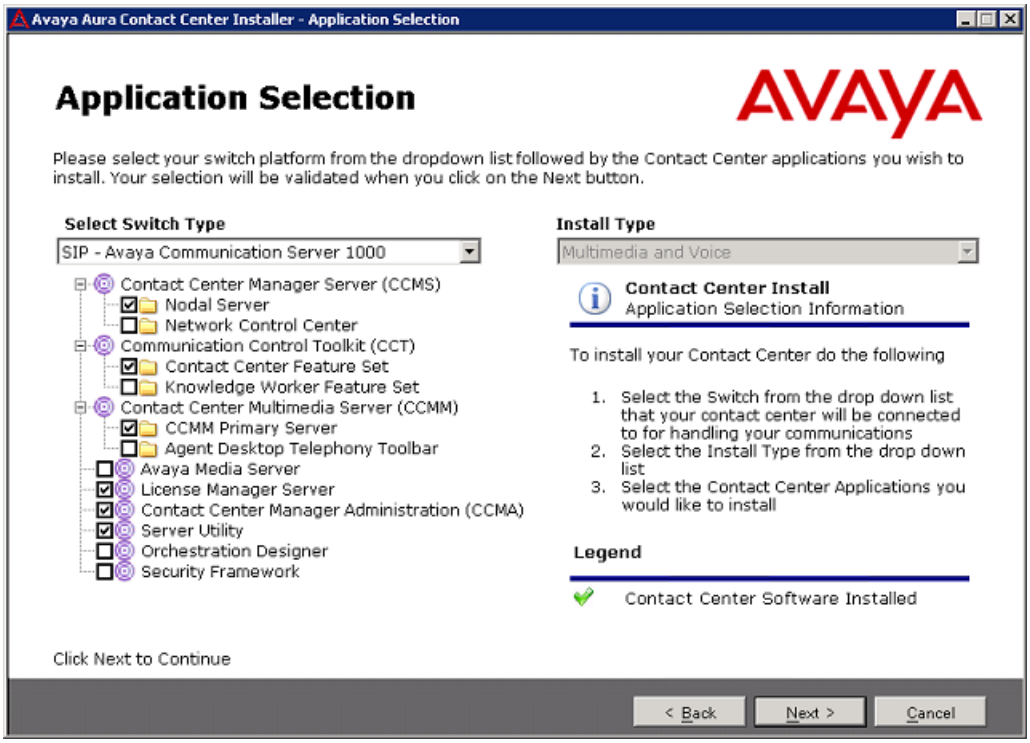


Figure 25: Example of installing co-resident server software

Configuring the WebLM license file

Before you begin

- Install the Contact Center License Manager server software.
- Restart the Contact Center License Manager server.

About this task

Configure Contact Center License Manager to use a WebLM file.

Note:

When you install Contact Center License Manager, an instance of Apache Tomcat Server is also installed on the same server. The default port number for Apache Tomcat is 8081. If you need to change the port number to avoid conflicts with third-party software, see your Apache Tomcat documentation.

Procedure

1. Log on to the server where the Contact Center License Manager software is installed.
2. Click **Start** > **All Programs** > **Avaya** > **Contact Center** > **License Manager** > **Configuration**.
3. On the Configuration page, click **Browse**.
4. View the type of license file currently used, and then click **OK**.
5. Navigate the file system and locate the WebLM license file.
6. Click **Open**.
7. Click **Apply**.
8. At the prompt, click **Yes** to restart the Contact Center License Manager services.
9. Click **OK** to close the window.
10. Click **Exit**.

Restarting the Contact Center Tomcat Instance

Before you begin

Apply the WebLM license file using the Contact Center License Manager Configuration utility.

About this task

Restart the Contact Center Tomcat Instance on the Contact Center License Manager server to commission the WebLM license file for the first time.

Procedure

1. Log on to your Contact Center License Manager server.
2. On the Start menu, choose **All Programs** > **Administrative Tools** > **Services**.
3. Right-click the **Contact Center Tomcat Instance** service, and click **Stop**.
4. Right-click the **Contact Center Tomcat Instance** service, and click **Start**.
5. Close the services window.

Chapter 17: Avaya Media Server software installation

This chapter describes how to install Avaya Media Server software in your SIP-enabled Avaya Aura® Contact Center. You can install Avaya Media Server on the Microsoft Windows Server 2008 64-bit Release 2 operating system. You can also install Avaya Media Server on the Linux operating system.

The Avaya Aura® Contact Center High Availability feature supports Avaya Media Server only on the Linux operating system.

Important:

After you install Avaya Media Server software on a server, changing the server name or IP address is not supported. To change the name or IP address of a server with Avaya Media Server software installed you must:

- Backup the Avaya Media Server database.
- Uninstall Avaya Media Server software.
- Change the server name or IP address.
- Install Avaya Media Server software.
- Restore the Avaya Media Server database.

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

Prerequisites to Avaya Media Server installation

- Install Contact Center Manager Server, Contact Center License Manager, Server Utility, and Contact Center Manager Administration software in your network.
- If you are using KRS licensing for your contact center solution, ensure that your Avaya Aura® Contact Center PLIC license file is available.
- Avaya Aura® Contact Center Release 6.2 Avaya Media Server is supported only in a SIP-enabled contact center.

Avaya Media Server installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install the Avaya Media Server software.

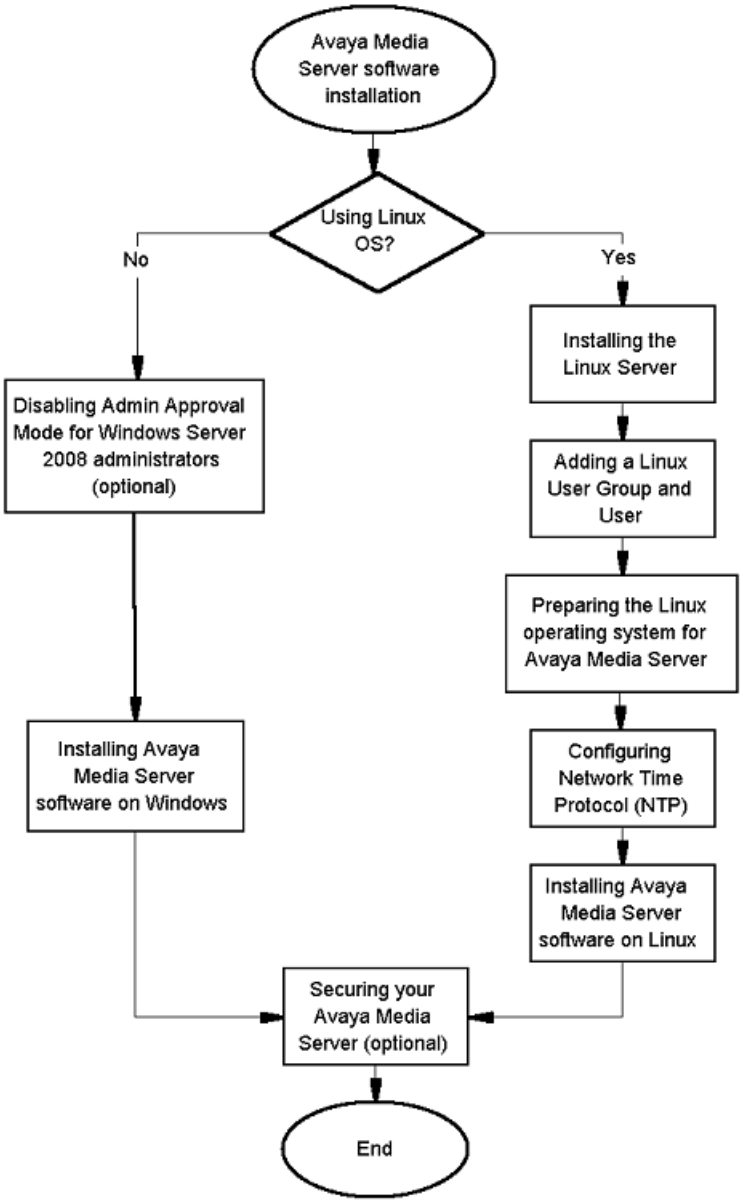


Figure 26: Avaya Media Server installation procedures

Comments? infodev@avaya.com

Job aid: Installation time

The estimated time to install the Avaya Media 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.

Note:

The installation time does not include the operating system installation and configuration.

Disabling Admin Approval Mode for Windows Server 2008 administrators (optional)

About this task

Windows Server 2008 implements a security feature known as User Account Control (UAC). By default, this feature causes applications run by local non built-in administrators to behave as if the applications had been run by standard users. This can lead to issues when installing Avaya Media Server or when configuring Avaya Media Server security framework. Perform this procedure to ensure that local administrators get full privileges for running applications.

Procedure

1. Click **Start** > **Administrative Tools** > **Local Security Policy**.
2. Under **Security Settings**, expand **Local Policies**.
3. Select **Security Options**.
4. In the policy pane on the right, double-click on **User Account Control: Run all administrators in Admin Approval Mode**.
5. Click the **Local Security Setting** tab, and select **Disabled**.
6. Click **OK**.

   If prompted, restart the server.

Installing Avaya Media Server software on Windows

Before you begin

- Prepare your server for software installation. See Server preparation on page 23.
- Partition the server hard disk drives as required. For more information, see *Avaya Aura® Contact Center Planning and Engineering* (NN44400-210).
- Download the most recent Avaya Media Server patches to the server.
- If you are adding Avaya Media Server 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 the Avaya Media Server software.

About this task

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

Note:

Contact Center Service Packs 5 and later include an updated version of the Avaya Media Server installation file. See the Service Pack Release Notes for instructions to update Avaya Media Server.

Procedure

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 on page 162.
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 10 on page 163.
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. Select **Avaya Media Server**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.
    The System Readiness Check runs on the server.
16. 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.
17. Click **Next**.
18. In the **Summary** window, confirm all information is correct.
19. Click **Install**.
20. After the installation is complete, click **Finish**.
21. If you are prompted, restart the server.
22. Disable Java Runtime Environment (JRE) updates. See Disabling Java Runtime Environment updates on page 279.

    Important:

    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.
23. Follow the steps in the release notes to install the updated Avaya Media Server files.

Procedure job aid

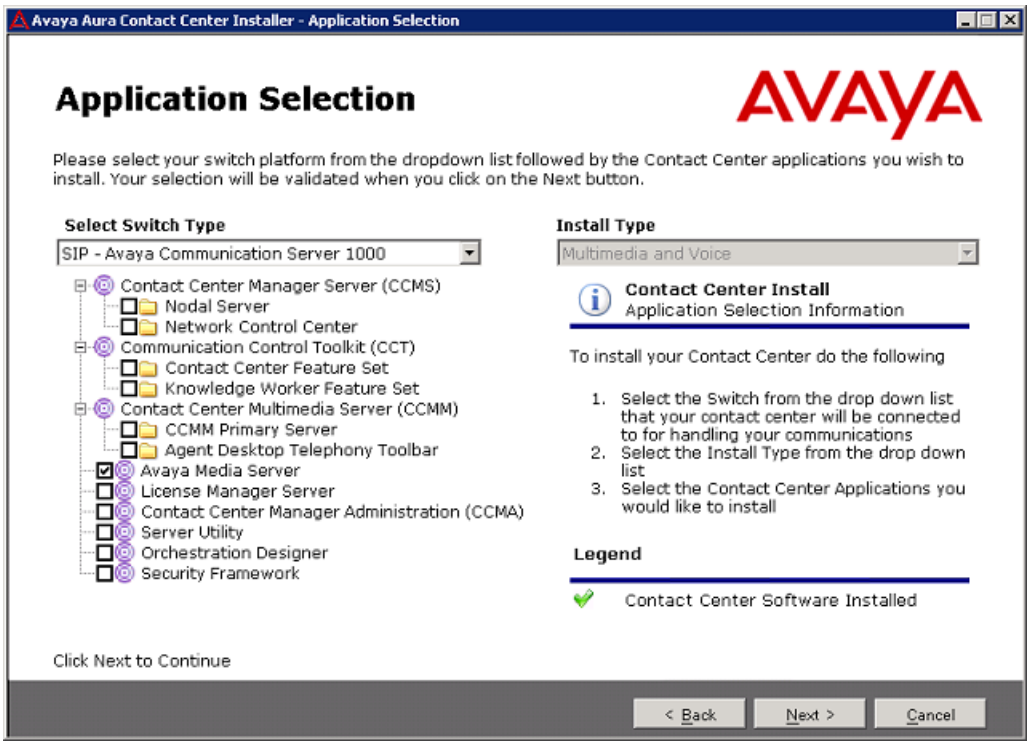


Figure 27: Example of installing Avaya Media Server software

Installing the Linux server

Before you begin

- Ensure your new server hardware meets all the requirements described in *Avaya Aura® Contact Center Planning and Engineering* (NN44400-210).

About this task

Install the Linux server operating system so that you can install the Avaya Media Server software.

Avaya Aura® Contact Center supports only Red Hat Enterprise Linux R5.4 (32–bit version) for the Avaya Media Server.

Always select the installation defaults except where this procedure specifies otherwise.

Procedure

1. Place the Linux installation disk in the DVD drive of the server.

2. Restart the server by powering it off, then powering it on again.
3. Follow the Red Hat Linux installation instructions, selecting English as the installation language and a system keyboard for your region.
4. On the hard drive partitioning screen, select **Remove linux partitions on selected drives and create default layout**.
5. Complete the network configuration by manually specifying a Fully Qualified Domain Name for the server hostname, and configuring the network gateway and DNS server.
6. When prompted for the local region, select your local region and then select **System clock uses UTC**.
7. When prompted for a root password, type and confirm the root password for your system.
8. Complete the installation and reboot the server.

Adding a Linux user group and user

About this task

Create a Linux user and account group that you can use to log on to Avaya Media Server Element Manager.

For example, create a user group named *mediaservergroup*, and then create a user *msuser* as a member of that group. Use this account to access Avaya Media Server Element Manager.

Procedure

1. On the Linux server, open a Linux terminal.
2. Use the su command to change to the root user account.
   For example, **`su -`**
3. Use the Linux groupadd command to create a new group.
   For example, **`group add mediaservergroup`**
4. Use the Linux useradd command to create a new user.
   For example, **`useradd msuser -G mediaservergroup`**
5. Use the Linux passwd command to configure the password for the user.
   For example, **`passwd msuser`**

Preparing the Linux operating system for Avaya Media Server

Before you begin

- Complete the *Avaya Aura® Contact Center Installation Checklist* (NN44400-310).

About this task

Prepare the Linux server so you can install the Avaya Media Server software. Security Enhanced Linux (SELinux) enforces the access rules, which apply to the processes and files on a Linux server. To support Avaya Aura® Contact Center and Avaya Media Server, you must disable SELinux.

The default firewall settings controlled by the Iptables firewall package block Avaya Media Server network communication. You must disable the default Iptables firewall package to enable Avaya Media Server network communication.

When a network address is added to a Linux server, the corresponding entries in the Linux /etc/hosts configuration file are not compatible with the Avaya Media Server PVI checker. You must edit the Linux hosts file to enable Avaya Media Server network communication. Remove hostname and Fully Qualified Domain Name (FQDN) references from the 127.0.0.1 localhost line in the hosts file.

Procedure

1. Open a Linux terminal on the Linux server.
2. Use the su command to change to the root user account.
   For example, **`su -`**
3. Enter **`sestatus -v`** to check the SELinux status. If the status is disabled, skip to step 8 on page 166.
4. Using a text editor such as vi, open the /etc/selinux/config file.
5. Change the SELINUX line to read `SELINUX=disabled`.
6. Reboot the server.
7. Open a Linux terminal on the Linux server.
8. Use the su command to change to the root user account.
   For example, **`su -`**
9. Using a text editor such as vi, open the /etc/hosts file.
10. In the hosts file, change the localhost 127.0.0.1 line to remove the server name and FQDN. When complete, the line contains only the following text:
    `127.0.0.1 localhost.localdomain localhost`

11. Save the hosts file.
12. To check the firewall status, enter **`service iptables status`**. If the response is `firewall is stopped`, skip the remaining steps of this procedure.
13. On the Linux command line, enter **`service iptables save`**.
14. Enter **`service iptables stop`**.
15. Enter **`chkconfigiptables off`**.

Configuring Network Time Protocol (NTP)

About this task

The Avaya Media Server must be synchronized in time with the contact center. You use Network Time Protocol (NTP) to synchronize servers with each other and with the contact center solution.

Procedure

1. Log on to the Avaya Media Server.
2. Edit the /etc/ntp.conf file to specify the NTP server. For example, if NTPServerName is the server name of your NTP server, add this line to the ntp.conf file: `server NTPServerName`
3. Open a Linux terminal on the Avaya Media Server.
4. Start the Network Time Protocol ntpd client service, using this command: `service ntpd start`
5. Configure the Network Time Protocol ntpd client service to automatically start after a Linux server reboot. This is done using the command: `chkconfig ntpd on`
6. Verify that the Network Time Protocol client is working using the command: `ntpq -p NTPServerName`

Installing Avaya Media Server software on Linux

Before you begin

- Log on to the Linux server.

About this task

Install the Avaya Media Server software to provide media processing for contacts in a SIP-enabled contact center environment.

Note:

Contact Center Service Packs 5 and later include an updated version of the Avaya Media Server installation file.

Procedure

1. On your Linux server, use the su command to change to the root user account.
   For example, **`su -`**
2. Use the mkdir command to create a temporary folder on the Avaya Media Server.
   For example, **`mkdir /tmp/AvayaMS`**
3. Expand the Service Pack iso image in a local directory.
4. In the expanded .iso image, find the folder \Install Software\MAS\Linux.
5. Copy the Avaya Media Server and CCSM installation files to the /tmp/AvayaMS directory on the Avaya Media Server.
6. Navigate to the /tmp/AvayaMS directory.
7. Grant executable permissions to the installation file.
   `chmod +x MediaServer_7.0.0.623_2012.03.12.bin`
8. Start the Avaya Media Server installer by running the installation file.
   `./MediaServer_7.0.0.623_2012.03.12.bin`
9. The installer displays the License Agreement. Press **Enter** to page through the license agreement.
10. If the license is acceptable, enter `Y` to accept the terms of the license agreement.
11. When prompted `Install Element Manager?`, enter `Y` to install the Element Manager.
12. When prompted for the Linux group name, press **Enter** to accept the default or specify the user group you created earlier. For example, select mediaservergroup so members of this group and log on an use Avaya Media Server Element Manager.

13. When prompted `Where would you like to install?`, press **Enter** to accept the default of /opt/avaya.
14. When the Avaya Media Server completes, reboot the server.
15. Log on to the Linux server.
16. Use the su command to change to the root user account.
    For example, **`su -`**
17. Navigate to the /etc/AvayaMS directory.
18. Assign executable permissions to the CCSM installation file.
    `chmod +x InstallCCSM`
19. Start the CCSM installer by running the following command:
    `./InstallCCSM`
    The installer displays the progress of the CCSM installation.

Securing your Avaya Media Server (optional)

About this task

Apply optional security measures to your operating system to further secure your server.

Important:

Scanning software can degrade the performance and decrease the reliability of the system. Install virus scanning software only if the system connects to an exposed network or to the Internet.

Important:

To maintain server performance, you must schedule virus scans during maintenance periods or low usage hours only.

Procedure

1. Harden the operating system using defined site procedures.
2. Install anti-virus software. If you install anti-virus software, ensure that you exclude the following directories from the scans:

Operating System	Excluded directories
	Note: The following are the default install locations. If you installed Avaya Media Server in a different location,

	navigate to the necessary directories and exclude them from anti-virus scans.
Linux	• /opt/avaya/ma/MAS/platdata • /opt/avaya/ma/MAS/common/log
Windows	• D:\Avaya\MAS \Multimedia_Applications\MAS \platdata • D:\Avaya\MAS \Multimedia_Applications\MAS \common\log

Chapter 18: CCTIVR software installation

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

Important:

CCTIVR is supported only on the Windows Server 2003 operating system. CCTIVR is not supported co-resident with Contact Center software.

CCT-IVR software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install the CCT-IVR software on a server.

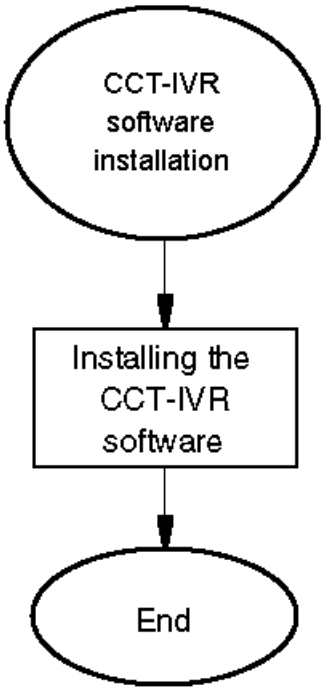


Figure 28: CCT-IVR software installation procedures

Installing CCT-IVR

Before you begin

- Download the CCT-IVR package from www.avaya.com/support.

About this task

Install the Interactive Voice Response (IVR) software.

Procedure

1. Copy the CCT-IVR package to the Window Server 2003 server.
2. Navigate to the folder where the CCTIVR installation software is stored.
3. Double-click **IVR-CTIInstaller.exe**.
4. If you are prompted, restart the server.

Chapter 19: 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.

You install the Agent Desktop client application on the client computers. Download the client software from the server by accessing a Web location on the server.

Prerequisites for Agent Desktop client software installation

- Install Contact Center Multimedia software (see Contact Center Multimedia software installation on page 117) or the telephony toolbar on the Communication Control Toolkit server (see Agent Desktop Telephony Toolbar software installation on page 107).
- 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
- Install Internet Explorer Release 7.0 or later.
- If the contact center PABX is not an Avaya Communication Server 1000, on the contact center domain create a Windows OU that contains all the agents' desktop computers.

Agent Desktop client software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install the Agent Desktop application on your client.

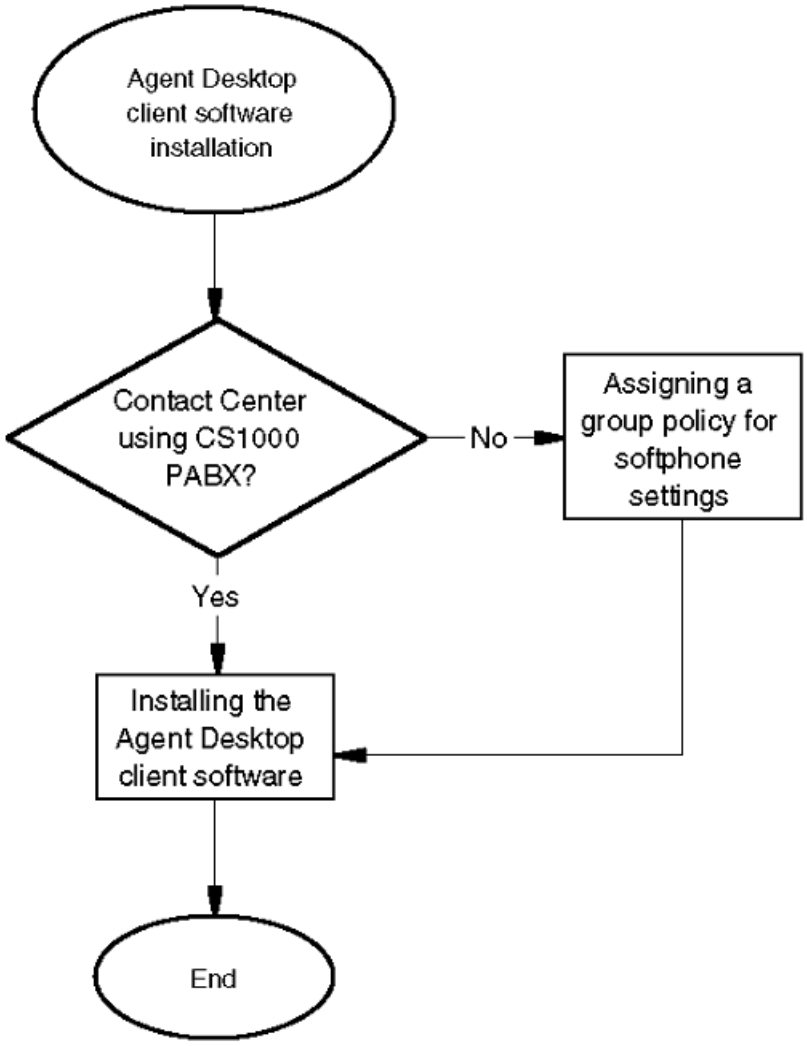


Figure 29: Agent Desktop client software installation procedures

Assigning a group policy for embedded softphone settings

Before you begin

- You understand Windows group policy management.

Important:

This procedure describes the steps to follow on Windows 2008 Server. If you are using an earlier version of Windows for your domain controller, refer to the appropriate Windows documentation.

- You have created on the contact center domain a Windows OU that contains all the desktop computers for the agents using Agent Desktop.
- You have copied the `AAADSignalPort.ADM` file from the <Install Drive>:\Avaya\Contact Center\Multimedia Server\Common Utilities folder on the server where CCMM is installed, to a folder on the domain controller.

Important:

This procedure requires a reboot of all the desktop computers for the agents using Agent Desktop.

About this task

Assign the Group Policy administrative template with specific settings for Agent Desktop to your Windows domain controller. You need to copy the administrative template file from the CCMM server to the Windows domain controller. You also need to add all the desktop computers for the agents using Agent Desktop to an organization unit (OU) on the contact center domain.

Procedure

1. On the Windows domain controller, choose **Start** > **Administrative Tools** > **Group Policy Management**.
2. Right-click the OU to which you want to link the Group Policy administrative template. This is the OU that contains the agents' desktop computers.
3. Select **Create and Link a GPO Here**.
   Windows displays the **New GPO** dialog.
4. In the **Name** box, type a name for the new GPO
5. Click **OK**.
6. Right-click the GPO you created.
7. Select **Edit**.
   Windows displays the **Group Policy Object Editor** dialog.
8. Expand **Computer Configuration**.
9. Under **Computer Configuration**, right-click **Administrative Templates**.
10. Select **Add/Remove Templates**.
    Windows displays the **Add/Remove Templates** dialog.
11. Click **Add**.
    Windows displays the **Policy Templates** dialog.

12. Browse to the location where you copied the `AAADSignalPort.ADM` file, select this file, and click **OK**.
13. Click **Close**.
14. From the **View** menu, select **Filtering**.
15. Select **only show policy settings that can be fully managed**.
16. Click **OK**.
17. Under **Administrative Templates**, select the policy template you added.
18. In the right-hand pane, right-click the **SignalProtocol** setting.
    Windows displays the SignalProtocol Properties dialog.
19. On the **Setting** tab, select **Enabled**.
20. Type “1” in the **Signal Protocol** box.
21. Click **OK**.
22. Exit the **Group Policy Object Editor**.
23. Ensure all agents restart their desktop computers before accessing the Agent Desktop application for the first time.

Installing the Agent Desktop client software

About this task

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

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**.
   The client downloads the .NET Framework and C++ software from the server and installs the application on the client.
4. Click **Launch AAAD**.
5. On the **Application Install - Security Warning** message box, click **Install**.

Variable definitions

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

Chapter 20: 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 on page 86.
- 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

About this task

This task flow shows you the sequence of procedures you perform to install Agent Desktop Displays software on your client.

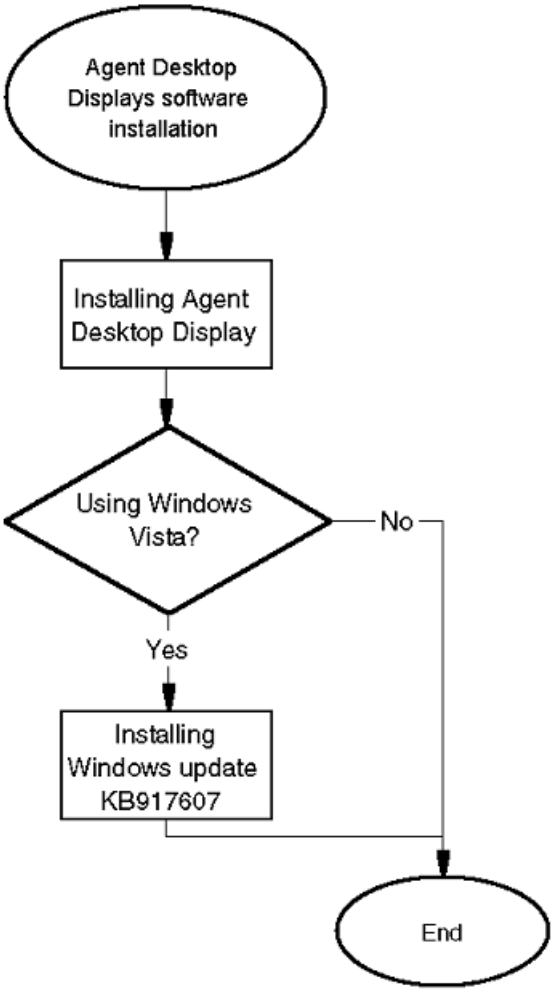


Figure 30: Agent Desktop Displays software installation procedures

Installing Agent Desktop Display client software

Before you begin

- 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.

About this task

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.

Procedure

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**.

Installing Windows update KB917607

Before you begin

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

About this task

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.

Procedure

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.

Chapter 21: Orchestration Designer client software installation

This chapter describes how to install the Orchestration Designer software on a client computer so that you can create flows for routing voice and multimedia contacts in an offline mode to minimize disruption within your Avaya Aura® Contact Center.

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

Orchestration Designer client software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install the Orchestration Designer software on a client.

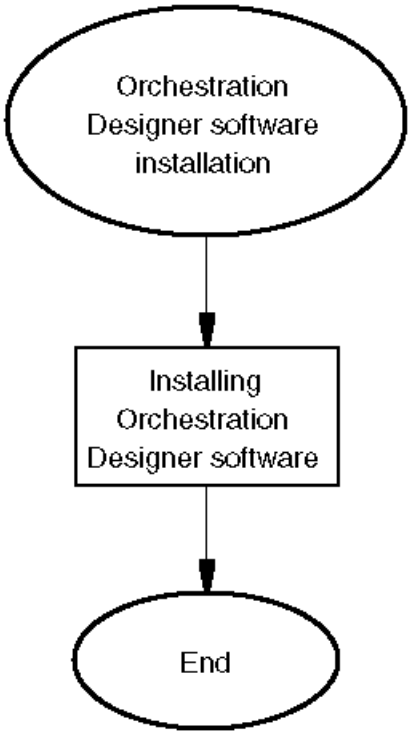


Figure 31: Orchestration Designer client software installation procedures

Job aid: Installation time

The estimated time to install the Orchestration Designer client 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 Orchestration Designer client software

Before you begin

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

About this task

Install the Orchestration Designer 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.

Procedure

1. From the client computer, log on to Contact Center Manager Administration.
2. Select **Orchestration Designer** > **Launch Orchestration Designer**.
   Install any additional software, if a window opens with an installation request.
   A VBScript window opens.
3. Click **OK**.
4. Click **Run**.

Chapter 22: 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 DNs (IVR ACD-DNs), 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 on page 23.
- 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

About this task

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.

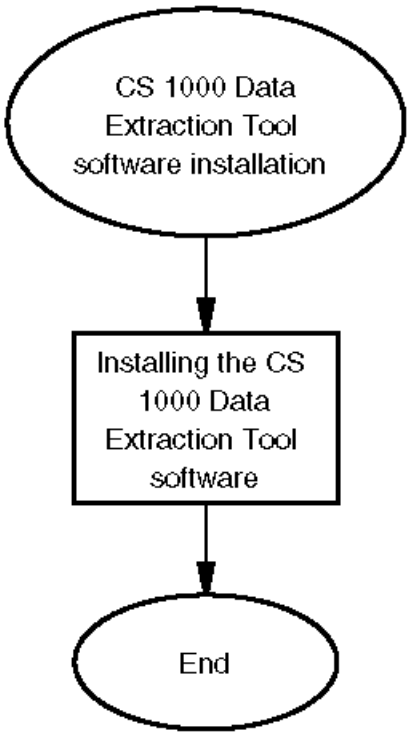


Figure 32: Avaya Communication Server 1000 Data Extraction Tool software installation procedures

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

About this task

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 DNs (IVR ACD-DNs), and routes from the Avaya Communication Server 1000.

Procedure

1. Insert the Contact Center DVD into the DVD drive and browse to **Install Software**, **CCMA**, **CS1000 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**.

Chapter 23: 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 Remote Geographic Node. The CCMS Remote Geographic Node shadows the active CCMS. Remote Geographic Node servers 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 on page 23.
- Partition the server hard disk 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.

Important:

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.

CCMS standby software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install Contact Center Manager Server software on your server.

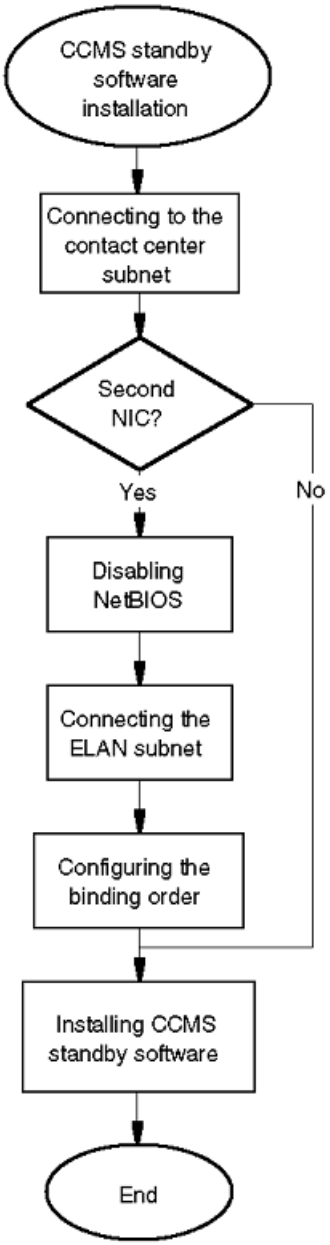


Figure 33: CCMS standby software installation procedures

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.

Connecting to the contact center subnet

About this task

Connect the Contact Center 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

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.

Disabling NetBIOS

About this task

If the Contact Center server uses two Network Interface Cards (NICs), disable NetBIOS on the Embedded LAN (ELAN) network interface card (NIC) to avoid NetBIOS conflicts.

Contact Center supports two Network Interface Cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center ELAN NIC and ELAN subnet are optional.

Procedure

1. Choose **Start** > **Control Panel** > **Network and Internet**.
2. Click **Network and Sharing Center**.
3. Click **Change adapter settings**.
4. Right-click the ELAN Network Interface Card (NIC).
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**.

Connecting the Embedded LAN subnet

Before you begin

- Install two network cards on the Contact Center server.
- Disable the NetBIOS on the ELAN network interface card.
- Connect the contact center subnet network interface card.

About this task

Connect the Embedded LAN (ELAN) NIC to the ELAN subnet. Contact Center supports two network interface cards (NICs) and two subnets (one contact center subnet and one ELAN subnet). The Contact Center ELAN NIC and ELAN subnet are optional.

Procedure

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 network 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.

Configuring the binding order

Before you begin

- Install two network interface cards on the Contact Center server.
- Disable the NetBIOS on the ELAN network interface card.

- Connect the Contact Center server network interface card to the contact center subnet.
- Connect the Contact Center server ELAN network interface card to the ELAN subnet.

About this task

Configure the binding order of the network cards. The contact center subnet network interface card must be bound first and then the ELAN network interface card.

Procedure

1. Choose **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center**.
2. Click **Change adapter settings**.
3. In the **Network Connections** window, press the **ALT** key.
   A hidden menu appears.
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.

Installing the Contact Center Manager Server standby software

Before you begin

- Ensure you are licensed for a standby Contact Center Manager Server.
- Install the primary Contact Center Manager Server.
- If you install Contact Center Manager Server software with an Avaya Communication Server 1000 PABX, ensure the PABX is configured. See *Avaya Aura® Contact Center Configuration – Avaya CS 1000 Integration* (NN44400-512).
- 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.

About this task

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.

Procedure

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 on page 197.
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. Click **Next**.
11. On the **Product Data Upgrade** window, click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, accept the default location for the **Application Destination Drive**.
13. Click the **Database Destination Drive** tab.
14. Under **Install Manager Server database to**, select the drive for the Contact Center Manager Server database.
15. Click the **Product Updates Location** tab.
16. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
17. Click **Next**.
    The System Readiness Check utility runs on the server.
18. 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.
19. Click **Next**.

20. 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.
21. Click **Next**.
22. On the **Summary** window, review and verify the information.
23. Click **Install**.
24. After the installation is complete, click **Finish**.
25. If you are prompted, restart the server.

Procedure job aid

Application Selection window variables

The following table provides a list of common Application Selection window variable definitions.

Name	Description
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. Select this option when integrating Avaya Aura® Contact Center with an AML-based Avaya Communication Server 1000. The term AML refers to the connection between CCMS and the CS 1000. • SIP - Avaya Communication Server 1000. • SIP - Avaya Aura® 5.2. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform Release 5.2 or an Avaya Aura® Midsize Business Template Release 5.2.1. • SIP - Avaya Aura® 6.1. Select this option when integrating Avaya Aura® Contact Center with an Avaya Aura® Unified Communications platform Release 6.1 or

Name	Description
	6.2, or an Avaya Aura® Solution for Midsize Enterprise Release 6.1 or 6.2. • No Switch Configured. Select this option when installing Avaya Aura® Contact Center as a multimedia addition to Avaya Aura® Call Center Elite, or when installing Avaya Aura® Contact Center to support only multimedia contacts.
Install Type	The Installation Type is disabled. Multimedia and Voice is set as the default installation type when you select any switch type. When none of the switch types are selected then Non Voice Multimedia is set as the default installation type. • 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.
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 in which your administrator downloads the software patches.

CCMS tab variables

The following table provides a list of common Contact Center Manager Server CCMS tab specific variables.

Name	Description
Customer Name	The designated person in charge of the Contact Center Manager Server software.

Name	Description
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 234.5.6.10.
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.

Licensing tab variables

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

Name	Description
License File Location	The folder on the server which contains the license file.
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

Name	Description
	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.
CCMS Package	The installation package indicates the licenses that you have purchased. • Essential—For small voice-only contact centers. • Nodal Enterprise—For single-site contact centers. • Corporate Enterprise—For multi-site contact centers.
Optional Package	You must choose the package you have purchased. Some packaged features include the following: • Open Interfaces Universal Networking—Use Network Skill-Based Routing to route voice 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. • 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.
Switch Serial Number	In an AML-based Contact Center, this is the serial number for the Avaya Communication Server 1000. You must obtain the serial number from your distributor. This value is not used in SIP-enabled contact centers.

CS1000 tab variables

The following table provides a list of AML-based Avaya Communication Server 1000-specific variables, as used on the CS1000 tab.

Name	Description
Switch Name	The name of the AML Avaya Communication Server 1000 telephone switch. 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.

SIP-Network tab variables

The following table provides a list of configuration variables specific to the SIP-Network.

Name	Description
SIP Voice Proxy Server	Information about the server that provides support for inbound and outbound calls, such as routing a call to an agent telephone.
• **IP Address**	If the contact center uses an Avaya Communication Server 1000 Network Routing Service (NRS), enter the IP address for it here. If the contact center uses an Avaya Aura® Session Manager, enter the IP address for the primary Avaya Aura® Session Manager here. If the contact center uses an Avaya Aura® SIP Enablement Services (SES) server, enter the IP address for it here.
• **Port**	The server listening port. The default port is 5060.
• **Network Transport**	The SIP Network Transport communication protocol. Avaya recommends that you use TCP for Avaya Communication Server 1000.
SIP CTI Proxy Server	Information about the server that provides support for SIP Computer Telephony Integration (CTI) so that Agent Desktop can acquire and control agent telephones for TR87.
• **IP Address**	If the contact center uses an Avaya Communication Server 1000 Signaling Server, enter the IP address for it here. If the contact center uses an Avaya Aura® Application Enablement Services server, enter the IP address for it here.
• **Port**	For an Avaya Communication Server 1000 the default SIP CTI Proxy Server port is 5060. For an Avaya Aura® Application Enablement Services server the default SIP CTI Proxy Server port is 4723.
• **Network Transport**	The SIP Network Transport communication protocol.

Name	Description
	For an Avaya Communication Server 1000, the default Network Transport communication protocol is TCP. For an Avaya Aura® Application Enablement Services server, the default Network Transport communication protocol is TLS.
Backup SIP Voice Proxy Server	Information about the server that provides backup support for inbound and outbound calls, such as routing a call to an agent telephone. Avaya Aura® Contact Center must have a Standby Server license to support a Backup Voice Proxy Server. The only type of Backup Voice Proxy Server supported by Avaya Aura® Contact Center is an Avaya Aura® Session Manager when it used with an Avaya Aura® Communication Manager.
• **IP Address**	If the contact center uses an Avaya Aura® Communication Manager and a backup Avaya Aura® Session Manager, enter the IP address for the backup Avaya Aura® Session Manager here.
• **Port**	The server listening port. The default port is 5060.
• **Network Transport**	The Backup Voice Proxy Server transport protocol.
SIP IM Proxy Server	Information about the server that supports the deployment of Instant Message over SIP. Select the Avaya Aura® 6.1 switch type to enable the IM Provider box. The SIP IM Proxy Server IP, Port, and Network Transport boxes are enabled only if you select the Instant Messaging option on the Licensing tab.
• **IM Provider**	From the IM Provider list, select the name of the instant messaging provider. Select either Aura Presence Services or Microsoft OCS.
• **XMPP Domain**	If using an Avaya Aura® Presence Services server, enter the domain name of the Extensible Messaging and Presence Protocol (XMPP) server. The XMPP Domain name must be different to the Local SIP Subscriber Domain Name.

Name	Description
• **IP Address**	The IP address of the SIP IM Proxy Server.
• **Port**	The default SIP IM Proxy Server for Avaya Aura® Presence Services is port 5222.
• **Network Transport**	The SIP IM Proxy Server transport protocol.

SIP-Server tab variables

The following table provides a list of common SIP-Server variable definitions.

Name	Description
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**	The registration user name on the registration proxy. Use a suitable user name following the standards in your system.
• **Domain Name**	Associated domain name for the SIP-enabled contact center. Typically the Avaya Aura® Contact Center SIP Domain Name matches your Active Directory domain name. If the Avaya Aura® Contact Center SIP Domain Name does not match the Active Directory domain name then it must match one of the following: • The SIP Enablement Services SIP domain name. • The Session Manager contact center SIP domain name. • The Avaya Communication Server 1000 NRS SIP contact center domain name. The Local SIP Subscriber Domain Name must be different to the XMPP Domain name.
• **Password**	Password for the registration user name.
• **Confirm Password**	Re-enter password for the registration user name.
Web Service Ports	The Web Service Ports group box appears only if you select Avaya Aura® Presence Services as the IM Provider.

Name	Description
	Server Port default is 9100. Client Port default is 9120.
SIP Server Type	Type of SIP proxy for the contact center integration. Depending on the switch type you select in the Application Selection window, the system automatically sets the specific SIP Server Type as the default. • For SIP Avaya Aura® 6.1 switch type, the default SIP Server Type is Avaya Aura® 6.1. • For SIP Avaya Communication Server 1000 switch type, the default SIP Server Type is CS1000.
MS Locale	Locale (including language and dialects) of the system environment.
Local Listening Ports	The SIP Communication protocol accepted by the system for incoming calls. TCP/UDP Port default is 5060. TLS Port default is 5061.

CCT Server tab variables

The following table provides a list of CCT-specific variables. The CCT server tab is visible only when the Open Queue feature is selected from the list of Optional Packages on the Licensing tab.

Name	Description
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.

Chapter 24: CCMA replication pre-install configuration

This chapter describes how to configure the primary Contact Center Manager Administration server with the windows accounts used by CCMA replication in your High Availability Avaya Aura® Contact Center solution.

Contact Center Manager Administration (CCMA) redundancy is provided by the addition of a replication (standby) CCMA server. CCMA stores configuration data in a Microsoft Active Directory - Lightweight Directory Services (AD-LDS) data store. The standby CCMA replicates the AD-LDS of 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 CCMA server and the standby replication CCMA server 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.

Active Directory - Lightweight Directory Services data store: Contact Center Manager Administration makes use of Active Directory - Lightweight Directory Services (AD-LDS) and other data files to store application data. The following data is stored in AD-LDS:

- user information and details
- access classes
- partitions
- private and graphical real-time reports
- real-time report filters
- historical report filters
- Server details (including CCMS, CCT, CCMM, CM, CCPR, and Other)

The following data files are not stored in AD-LDS:

- scheduling data for Contact Center Management assignments
- scheduling data for historical reports
- historical report output files
- user-created historical reports imported into Contact Center Manager Administration
- real-time report exported files
- Emergency Help exported files

- Report Creation Wizard user-created formulas (stored in the file RCW.mdb)
- Report Creation Wizard user-created reports and report definitions
- Audit Trail events

A CCMA replication solution contains a primary CCMA server and a standby CCMA server. Install the primary CCMA server with “Enable CCMA Replication” not selected. Install the standby CCMA server with “Enable CCMA Replication” selected. The standby CCMA server replicates the primary CCMA server AD-LDS contents.

The primary CCMA server is always the primary CCMA server. If the primary CCMA fails, the standby CCMA is still a standby CCMA, they do not switch roles. To restore CCMA solution resiliency, you must repair and reinstate the primary CCMA server, or install a new primary CCMA server using the same details as the previous primary CCMA. After a switchover, AD-LDS replication ensures that data stored in AD-LDS is available on the standby server. Data not stored in AD-LDS must be manually restored to the standby CCMA server.

Domain environments: 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 “myDomain\CCMAReplication”.
- Assign this domain user account to the local Administrators and local Replicator groups on both CCMA servers.

Workgroup environment: If both CCMA servers are in a workgroup, perform the following steps to create the AD-LDS Replication account:

- Create a local user account on both the primary and standby replicating CCMA servers using the same name and password.

  For example;

  Create “myPrimaryCCMA\CCMAReplication” on the primary server.

  Create “myStandbyCCMA\CCMAReplication” on the standby server.

  Ensure the account on both CCMA servers 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) and Communication Control Toolkit (CCT), you must install CCMS, CCT, and CCMA on the standby server. All applications must be on the same patch level.

CCMA replication pre-install configuration procedures

About this task

This task flow shows the sequence of procedures to perform to prepare for the installation of a Contact Center Manager Administration standby server.

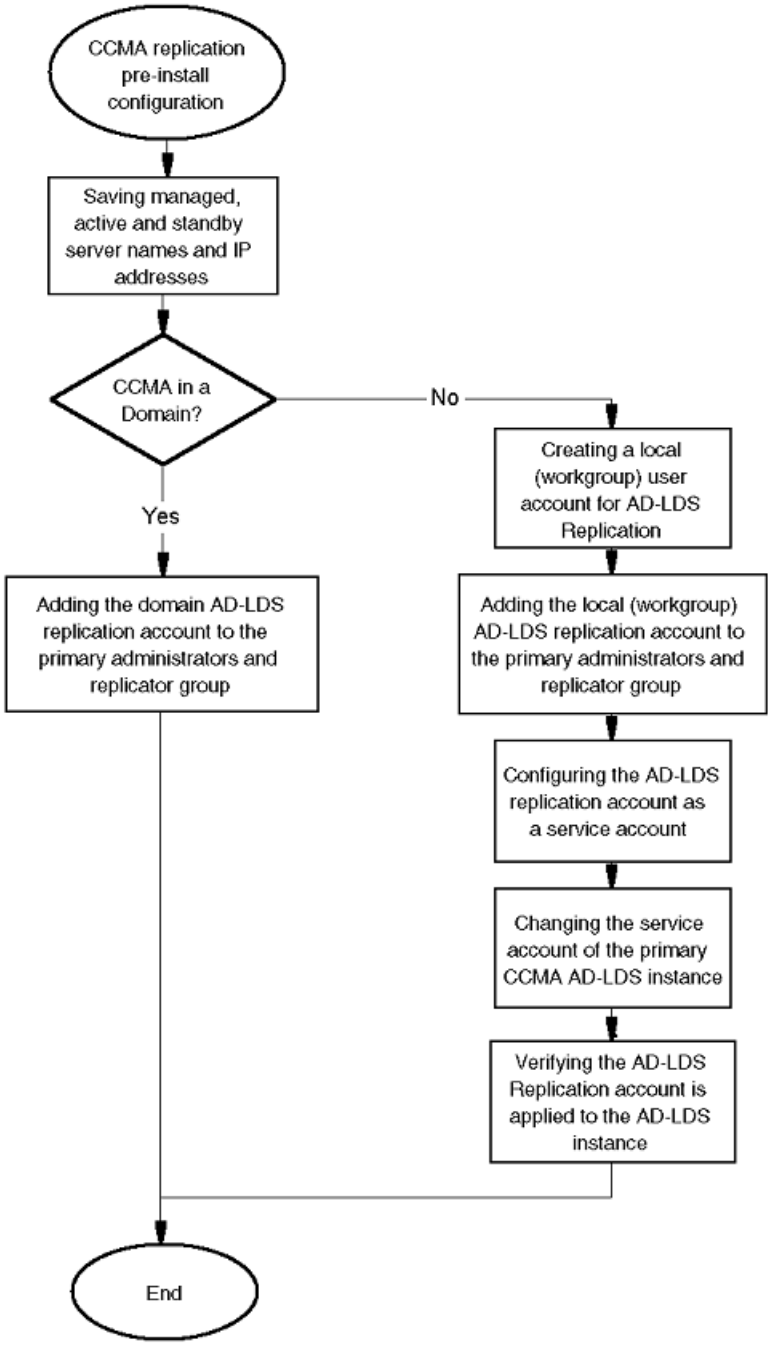


Figure 34: CCMA replication pre-install configuration procedures

Saving managed, active and standby server names and IP addresses

About this task

Complete the following procedure on the Active Server to resolve the managed CLAN server name to the managed IP address using the Windows hosts file.

For information about saving the managed CLAN server name to the DNS server, contact your System Administrator.

Perform this procedure on the Active CCMA Server.

Procedure

1. Log on to the primary CCMA server.
2. Open Windows Explorer.
3. Go to the folder C:\Windows\system32\drivers\etc.
4. Double-click the **hosts** file, select **Notepad** and click **OK**.
5. 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

   Important:

   The Managed Server name can be a full name or netbios server name.

Adding the domain AD-LDS replication account to the primary administrators and replicator group

About this task

Add the AD-LDS replication account to the local Administrators and replicator group on the primary CCMA server.

Important:

If you are using a workgroup, skip this procedure.

If you are using a domain, you must request this AD-LDS replication account from your Network or System Administrator. The primary and standby replicating Contact Center Manager Administration servers must both be added to the same domain.

For this procedure, the name of the AD-LDS replication account is CCMAReplication. You can choose another name for the account.

Procedure

1. Log on to the primary Contact Center Manager Administration server.
2. Click **Start** > **Administrative Tools** > **Computer Management**.
3. In the **Computer Management** window, expand **Local Users and Groups**.
4. Click the **Groups** folder.
5. Double-click on the **Administrators** group.
6. Click **Add** > **Locations**.
7. On the **Windows Security** dialog box, type the domain logon details.
8. On the **Locations** dialog, select the domain to be used by CCMA replication.
9. Expand the domain folder to display domain users.
10. Click **Users**.
11. Click **OK**.
12. Click **Advanced** > **Find Now**, to display domain users.
13. From the list of users select the CCMA replication domain user account, for example select the myDomain\CCMAReplication user account.
14. Click **OK**.
15. Click **OK** > **Apply** > **OK**.
16. Click the **Groups** folder.
17. Double-click on the **Replicator** group.
18. Click **Add** > **Locations**.
19. On the **Windows Security** dialog box, type the domain logon details.
20. On the **Locations** dialog, select the domain to be used by CCMA replication.
21. Expand the domain folder to display domain users.
22. Click **Users**.
23. Click **OK**.
24. Click **Advanced** > **Find Now**, to display domain users.
25. From the list of users select the CCMA replication domain user account, for example select the myDomain\CCMAReplication user account.
26. Click **OK**.

27. Click **OK** > **Apply** > **OK**.

Creating a local (workgroup) user account for AD-LDS Replication

Before you begin

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

About this task

Create a user account on the primary Contact Center Manager Administration server. This user account is used for AD-LDS Replication. This procedure is necessary when you install both CCMA servers in a workgroup.

Important:

If you are using a domain, skip this procedure.

For this procedure, the name of the local user account is “myPrimaryCCMA \CCMAReplication”. You can choose another name for the account.

Procedure

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

Adding the local (workgroup) AD-LDS replication account to the primary administrators and replicator group

About this task

Add the AD-LDS replication account to the local Administrators and replicator group on the primary CCMA server.

Important:

If you are using a domain, skip this procedure.

If you are using a workgroup, you must create this AD-LDS replication account. For more information about creating a workgroup account for AD-LDS replication, see Creating a local (workgroup) user account for AD-LDS Replication on page 213.

For this procedure, the name of the AD-LDS replication account is CCMAReplication. You can choose another name for the account.

Procedure

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

Configuring the AD-LDS replication account as a service account

Before you begin

- If you are using a workgroup, add the local user account to the local Administrators and replicator group on the primary Contact Center Manager Administration server. See Adding the local (workgroup) AD-LDS replication account to the primary administrators and replicator group on page 214.

About this task

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.

Important:

If you are using a domain, skip this procedure.

For this procedure, the name of the AD-LDS Replication account is CCMAReplication. You can choose another name for the account.

Procedure

1. Log on to the primary Contact Center Manager Administration server.
2. Click **Start** > **Administrative Tools** > **Local Security Policy**.
3. In the **Local Security Policy** window, in the left pane, expand the **Local Policies** folder.
4. Click the **User Rights Assignment** folder.
5. In the right pane, double-click **Log on as a service**.
6. In the **Log on as a service Properties** dialog box, click **Add User or Group**.
7. In the **Select Users, Computers, or Groups** dialog box, type the account name:

   If you are using a workgroup, type myPrimaryCCMA\CCMAReplication.
8. Click **OK**.
9. If a **Security Templates** message box is displayed, select the message box and click **OK**.
10. Click **Apply** to save your changes.
11. Click **OK** to close the **Log on as a service Properties** dialog box.

Changing the service account of the primary CCMA AD-LDS instance

Before you begin

- 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 on page 215.

About this task

Change the service account of the AD-LDS instance on the Contact Center Manager Administration server. By default, AD-LDS runs under a Windows system account. To enable AD-LDS replication the AD-LDS service account must be changed to a domain or workgroup account accessible by the replicating standby CCMA server.

Important:

If you are using a domain, skip this procedure.

Change the CCMA AD-LDS service account from the default Windows service account to the AD-LDS Replication account that you have added.

For this procedure, the name of the AD-LDS Replication account is myDomain \CCMAReplication. You can choose another name for the account.

Procedure

1. Log on to the primary Contact Center Manager Administration server.
2. Click **Start** > **All Programs** > **Run**. Type **cmd** and press Enter.
3. At the command prompt, type **net stop <instance name>**. For example, type **net stop SymposiumWC**.
4. At the command prompt, type **dsdbutil**.
5. At the **dsdbutil** prompt, type **activate instance <instancename>**. For example, type **activate instance SymposiumWC**.
6. At the **dsdbutil** prompt, type **change service account <account name> <password>**; <account name> and <password> represent the name and password of the account to use as the AD-LDS service account.

   For example type;

   change service account myPrimaryCCMA\CCMAReplication <CCMAReplication password>.
7. At the **dsdbutil** prompt, type **quit** to exit dsdbutil.

8. At the command prompt, type **net start <instance name>** to restart the AD-LDS instance. For example, type **net start SymposiumWC**.

Verifying the AD-LDS Replication account is applied to the AD-LDS instance

Before you begin

- 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 on page 216.

About this task

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

Important:

If you are using a domain, skip this procedure.

For this procedure, the name of the AD-LDS Replication account is CCMAReplication. You can choose another name for the account.

Procedure

1. Log on to the primary Contact Center Manager Administration server.
2. Click **Start** > **Administrative Tools** > **Services**.
3. In the right pane, right-click **SymposiumWC** and click **Properties**.
4. In the **SymposiumWC Properties** dialog box, click the **Logon** tab.
5. Confirm that the entry in the **This account** box equals the local user account (CCMAReplication).

Chapter 25: Contact Center Manager Administration standby software installation

This chapter describes how to install the 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 provides redundancy and resiliency and can be used if the primary CCMA fails. No automatic CCMA switchover occurs. If the active CCMA fails, the Contact Center uses the standby CCMA.

If the active server is co-resident with Contact Center Manager Server (CCMS) and Communication Control Toolkit (CCT), 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

- The primary active CCMA server must already be installed and configured. For more information about installing a primary CCMA server, see Contact Center Manager Administration primary server software installation on page 77.
- The primary active CCMA server must already be configured to support AD-LDS replication. For more information about configuring a primary CCMA server to support AD-LDS replication, see CCMA replication pre-install configuration on page 207.
- Prepare your standby server for software installation. See Server preparation on page 23.
- Partition the server hard disk drives as required. For more information, see *Avaya Aura® Contact Center Planning and Engineering* (NN44400-210).
- Understand the configuration of the primary server software in your contact center.

Important:

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.

CCMA standby software installation procedures

About this task

This task flow shows you the sequence of procedures you perform to install the Contact Center Manager Administration replication software on your server. CCMA supports Sybase clients when the Sybase Open Client software and ODBC driver are installed.

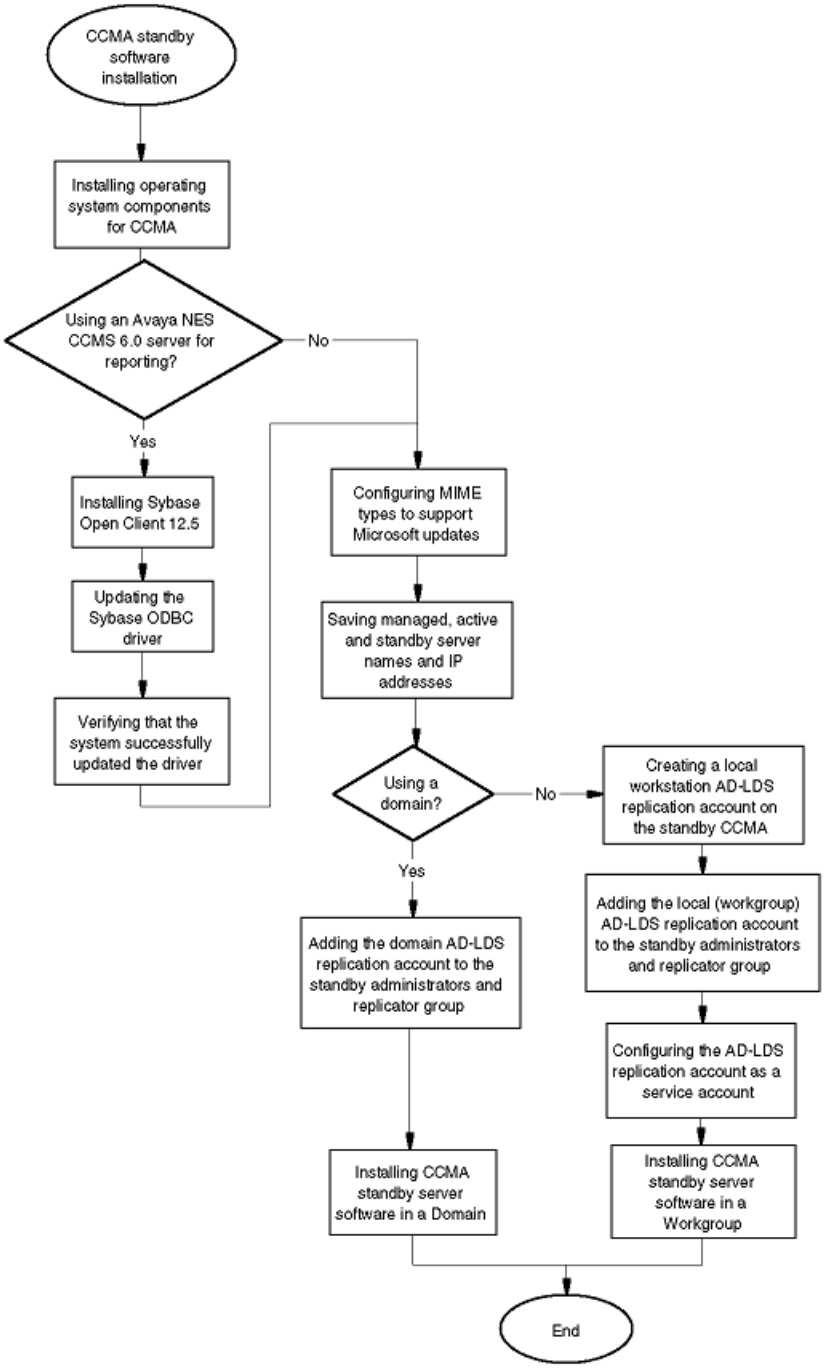


Figure 35: CCMA standby software installation procedures

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 operating system components for Contact Center Manager Administration

Before you begin

- Install Windows Server 2008 64-bit Release 2.

About this task

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

Procedure

1. Choose **Start** > **Administrative 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. Under **Application Server**, select **Role Services**.
9. 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 **Introduction to Web Server (IIS)** 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

    Important:

    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

    Important:

    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

    Important:

    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

Important:

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.

Installing Sybase Open Client 12.5

Before you begin

- 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.

About this task

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.

Procedure

1. Log on to 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.

Updating the Sybase ODBC driver

Before you begin

- Install Sybase Open Client 12.5.

About this task

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.

Procedure

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**.

Verifying that the system successfully updated the driver

Before you begin

- Update the Sybase ODBC driver.

About this task

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.

Procedure

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 if any error messages were recorded during the xcopy command.

Configuring MIME types to support Microsoft updates

About this task

Configure the Multipurpose Internet Mail Extension (MIME) types to support Microsoft updates and patches.

Procedure

1. Log on to the Contact Center Manager Administration server.
2. Click **Start** > **Administrative Tools** > **Computer Management**.
3. In the **Computer Management** dialog box, expand **Services and Applications** > **Internet Information Services** > **IIS Manager** > **Sites**.
4. Select **Default Web Site**.
5. Under **IIS**, select **MIME Types**.
6. Double-click **MIME Types**.
7. On the **Actions** list on the right, click **Add**.
8. In the **File name extension** box, type **.msp**.
9. In the **MIME Type** box, type **application/microsoftpatch**.
10. Click **OK**.
11. On the **Actions** list on the right, click **Add**.
12. In the **File name extension** box, type **.msu**.
13. In the **MIME Type** box, type **application/microsoftupdate**.
14. Click **OK**.
15. Close the **Computer Management** window.

Saving managed, active and standby server names and IP addresses

About this task

Complete the following procedure on the Standby Server to resolve the managed CLAN server name to the managed IP address using the Windows hosts file.

For information about saving the managed CLAN server name to the DNS server, contact your System Administrator.

Perform this procedure on the Standby CCMA Server.

Procedure

1. Open Windows Explorer.
2. Go to the folder C:\Windows\system32\drivers\etc.
3. Double-click the **hosts** file, select **Notepad** and click **OK**.
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

   Important:

   The Managed Server name can be a full name or netbios server name.

Adding the domain AD-LDS replication account to the standby administrators and replicator group

About this task

Add the AD-LDS replication account to the local Administrators and replicator group on the standby server. Perform this procedure before installing CCMA on the standby server.

Important:

If you are using a workgroup, skip this procedure.

If you are using a domain, you must request this AD-LDS replication account from your Network or System Administrator. The primary and standby replicating Contact Center Manager Administration servers must both be added to the same domain.

For this procedure, the name of the AD-LDS replication account is CCMAReplication. You can choose another name for the account.

Procedure

1. Log on to the standby server.
2. Click **Start** > **Administrative Tools** > **Computer Management**.
3. In the **Computer Management** window, expand **Local Users and Groups**.
4. Click the **Groups** folder.
5. Double-click on the **Administrators** group.
6. Click **Add** > **Locations**.
7. On the **Windows Security** dialog box, type the domain logon details.
8. On the **Locations** dialog, select the domain to be used for CCMA replication.
9. Expand the domain folder to display domain users.
10. Click **Users**.
11. Click **OK**.
12. Click **Advanced** > **Find Now**, to display domain users.
13. From the list of users select the CCMA replication domain user account, for example select the myDomain\CCMAReplication user account.
14. Click **OK**.
15. Click **OK** > **Apply** > **OK**.
16. Click the **Groups** folder.
17. Double-click on the **Replicator** group.
18. Click **Add** > **Locations**.
19. On the **Windows Security** dialog box, type the domain logon details.
20. On the **Locations** dialog, select the domain to be used for CCMA replication.
21. Expand the domain folder to display domain users.
22. Click **Users**.
23. Click **OK**.
24. Click **Advanced** > **Find Now**, to display domain users.
25. From the list of users select the CCMA replication domain user account, for example select the myDomain\CCMAReplication user account.
26. Click **OK**.

27. Click **OK** > **Apply** > **OK**.

Installing CCMA standby server software in a Domain

Before you begin

- The primary active CCMA server must already be installed and configured. For more information about installing a primary CCMA server, see Contact Center Manager Administration primary server software installation on page 77.
- The primary active CCMA server must already be configured to support AD-LDS replication. For more information about configuring a primary CCMA server to support AD-LDS replication, see CCMA replication pre-install configuration on page 207.
- Install and configure Internet Information Systems (IIS) on your Windows 2008 Server.
- Download the most recent Contact Center Manager Administration patches to the server.

About this task

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.

Important:

If you are using a workgroup, skip this procedure.

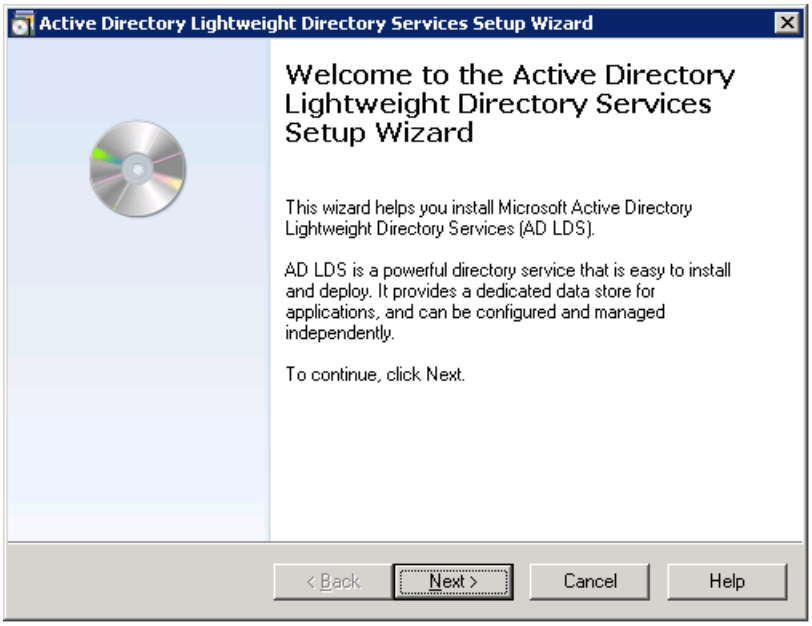
Procedure

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.

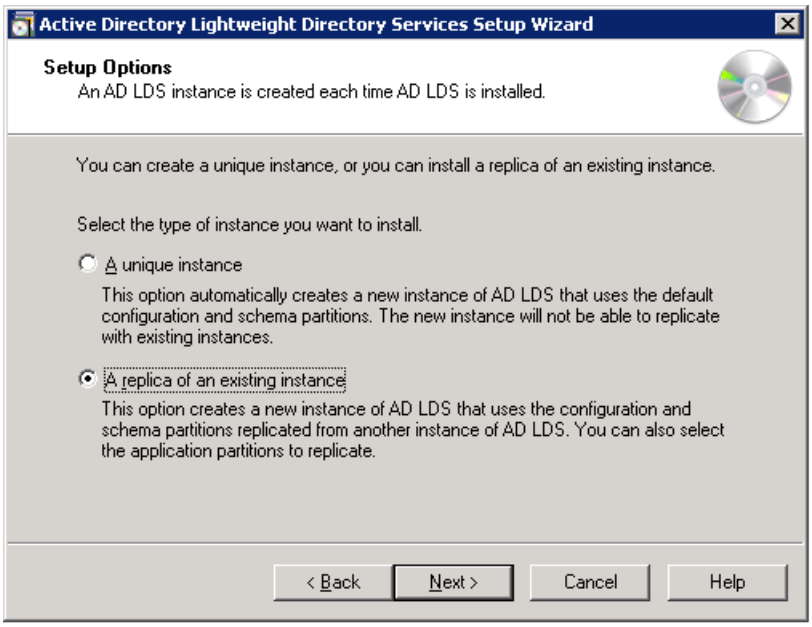
   If you are prompted to accept the Microsoft .NET Framework 3.5.1 license agreement, click **Accept**. If you are prompted to restart the server, click **Yes** and repeat step 2 on page 230.
4. On the **Welcome** window, click **Next**.
5. If you already installed a Contact Center server software application on this server, click **Add a Component**, and then skip to step 8 on page 230.
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. Select **Contact Center Manager Administration (CCMA)**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.
    The System Readiness Check utility runs on the server.
16. 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.

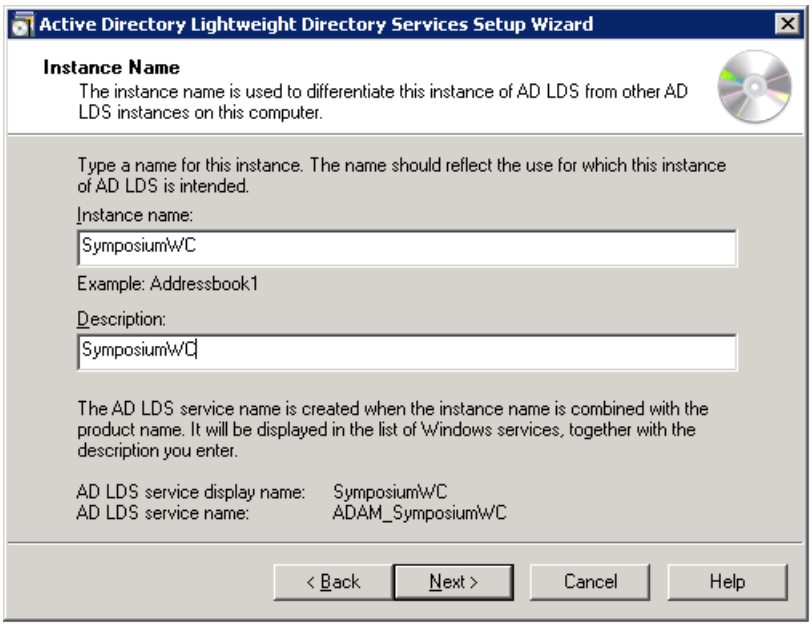
    You can ignore warnings if the potential impact to the operation of the contact center is understood and not applicable.
17. Click **Next**.
18. On the **Installation Data** window, type the installation details for each tab.
19. Select **Enable CCMA Replication**.
20. On the **Contact Center Installer** message box, click **Yes**.
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.



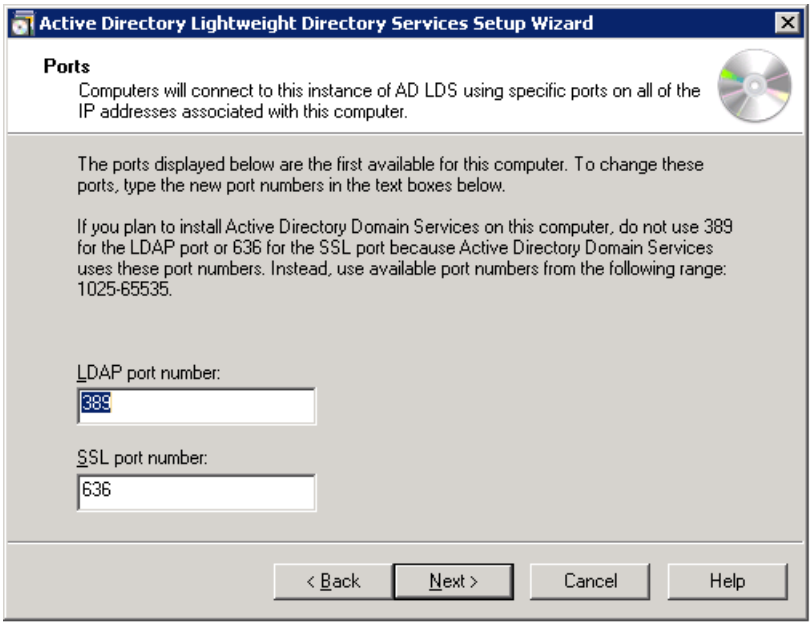
23. Select **Next**.
24. In the **Setup Options** dialog box, select **A replica of an existing instance**.



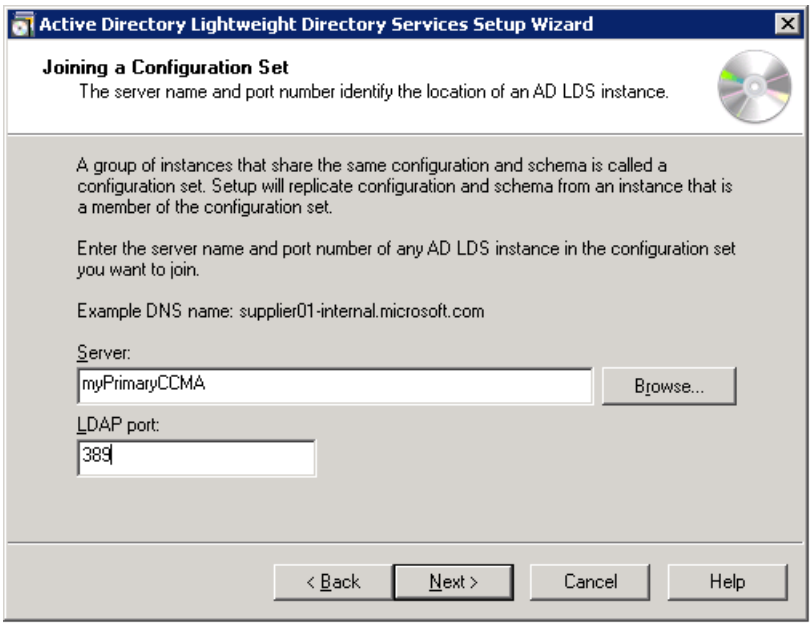
25. Select **Next**.
26. On the **Instance Name** dialog box, in the **Instance name** box, type the AD-LDS instance name. The default instance name is SymposiumWC, so type **SymposiumWC**.



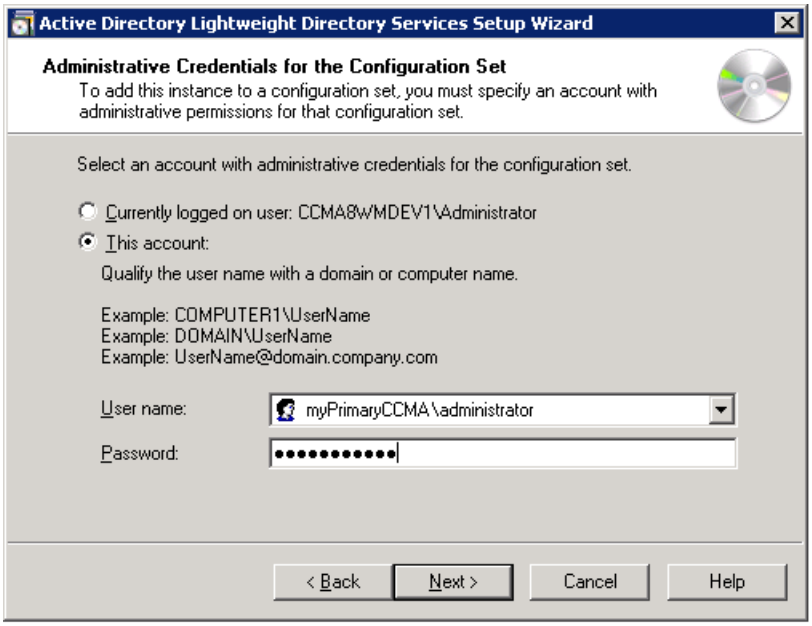
27. In the **Description** box, type **SymposiumWC**.
28. Click **Next**.
29. On the **Ports** dialog box, if no other applications use the ports, accept the default values in the **LDAP port number** and **SSL port number** boxes and select **Next**.



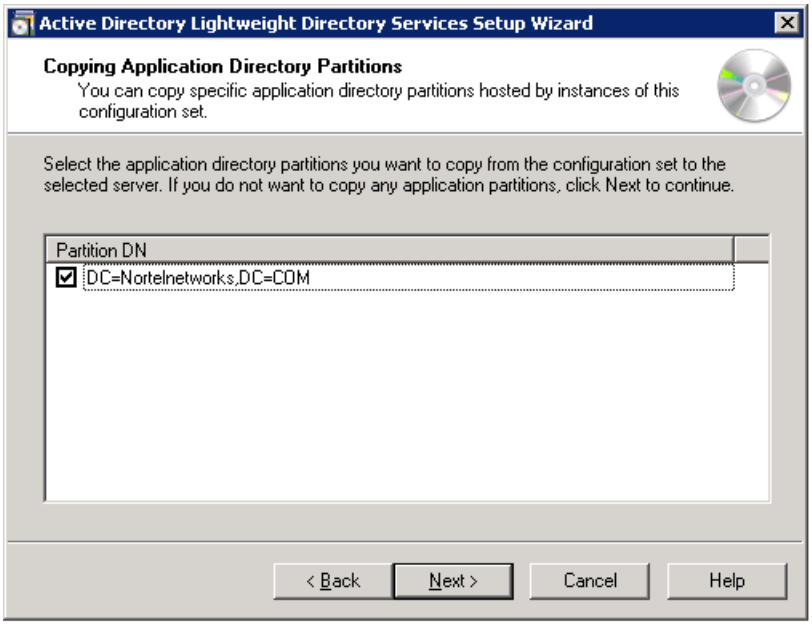
30. On the **Joining a Configuration Set** dialog box, in the **Server** box, type the FQDN name of the primary Contact Center Manager Administration server to replicate.
Example of entering the primary CCMA server name.



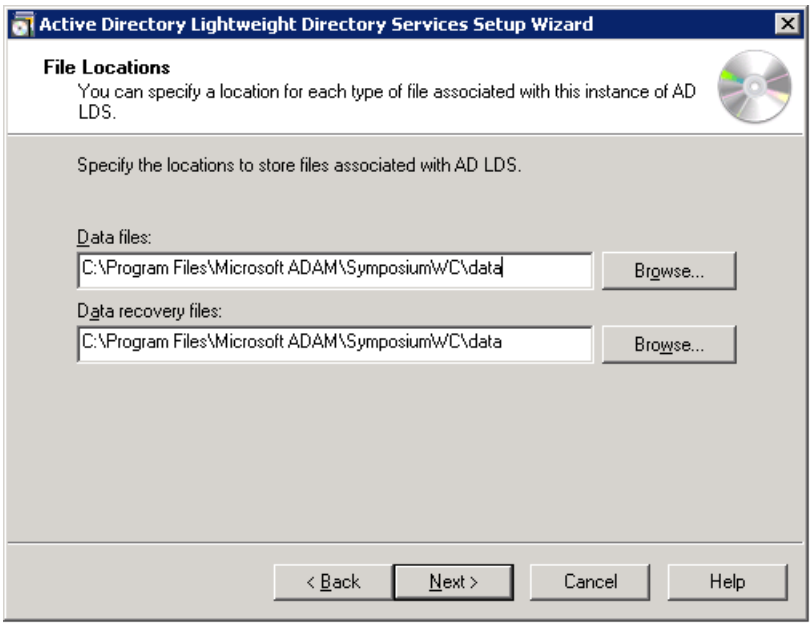
31. On the **Joining a Configuration Set** window, in the **LDAP Port** box, type the port number on the AD-LDS instance on the primary CCMA. The default is port number 389.
32. Click **Next**.
33. On the **Administrative Credentials for the Configuration Set** window, select **This account**.
34. In the **User name** box, type the primary CCMA server name followed by its Administrator name in the format <primary CCMA name>\Administrator. For example enter myPrimaryCCMA\Administrator. If you have created another administrator account for Contact Center, then enter the details (name and password) for that Primary CCMA server administrator account here. Your administrator account must have full administrative privileges.
Example of entering the administrative credentials.



35. In the **Password** box, type the password for this user account.
36. Click **Next**.
37. In the **Copying Application Directory Partitions** dialog box, in the **Partition DN** list, select the partition **DC=Nortelnetworks,DC=COM**.



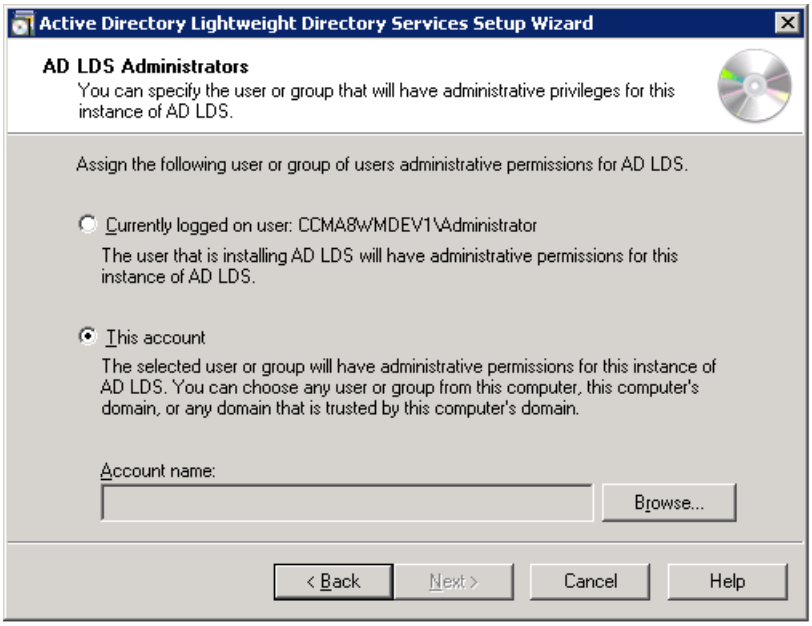
38. Select **Next**.
39. In the **File Location** dialog box, accept the default values, click **Next**.



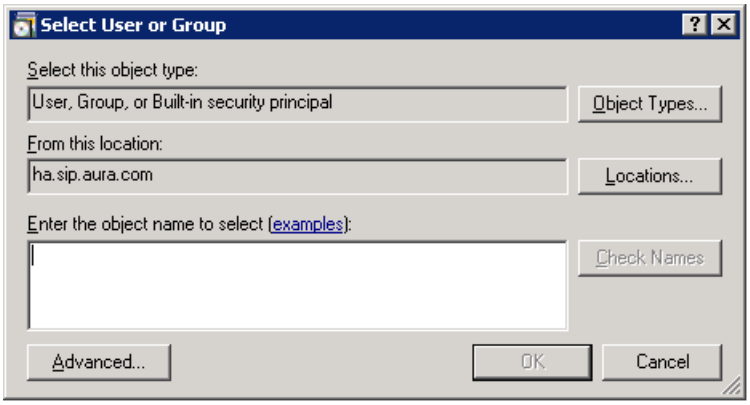
40. In the **Service Account Selection** dialog box, select **Network service account**.
Example of using a domain and selecting Network service account.



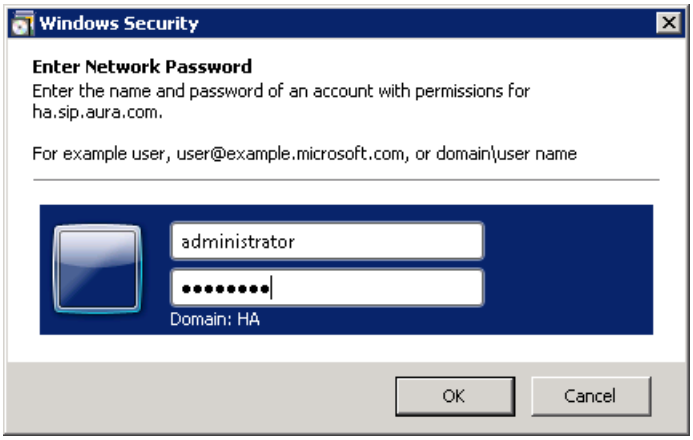
41. Click **Next**.
42. In the **AD LDS Administrators** dialog box, select **This account**.



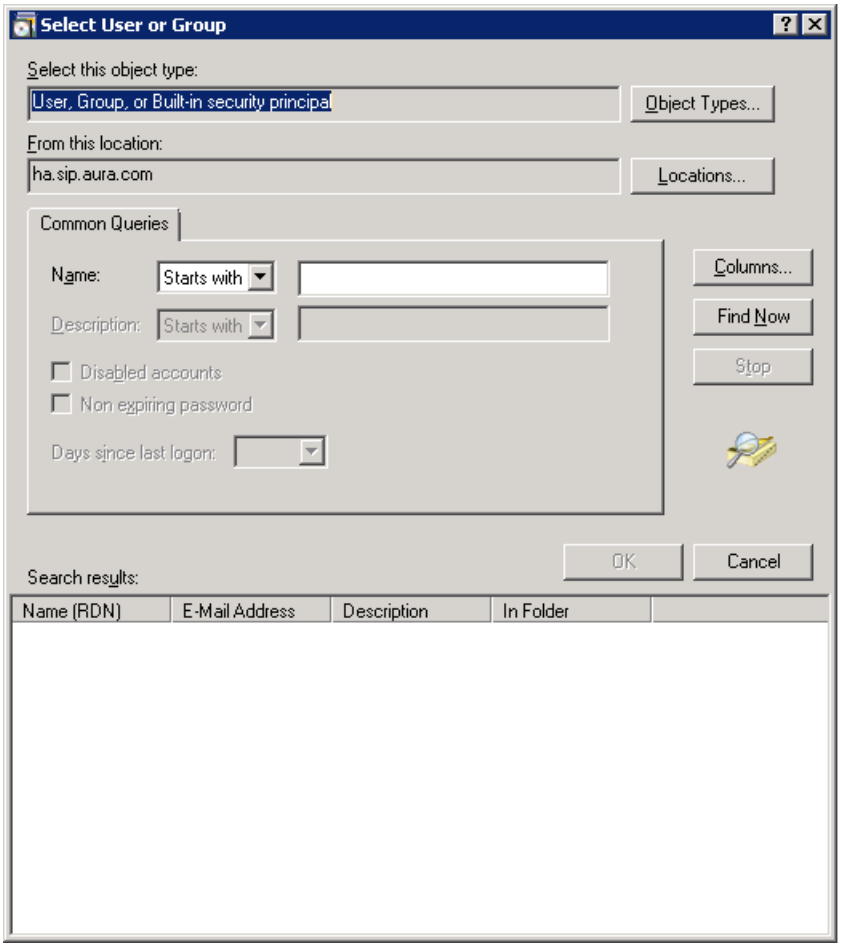
43. Select **Browse** to locate the CCMA AD-LDS replication account.
    The Select User or Group dialog box appears. Note that the location is the local domain.



44. In the **Select User or Group** dialog box, click **Advanced**.
45. In the **Windows Security** dialog box, type a logon name and password of an account with permissions to access your domain.

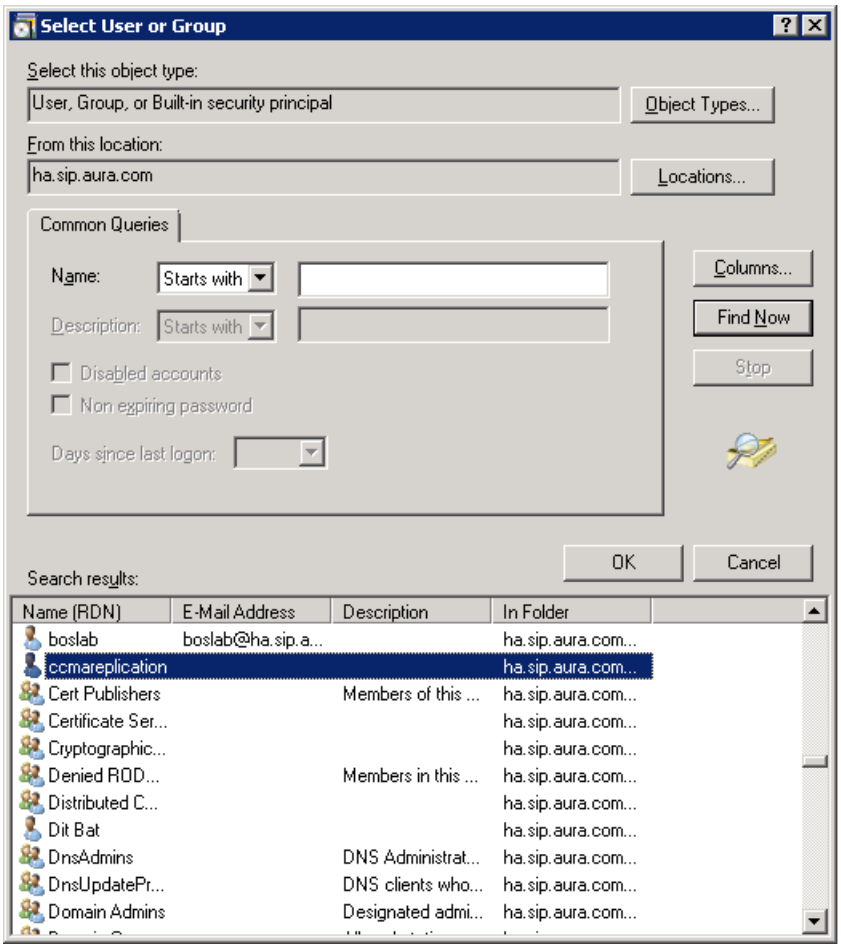


46. Click **OK**.
    The advanced Select User or Group dialog box appears.

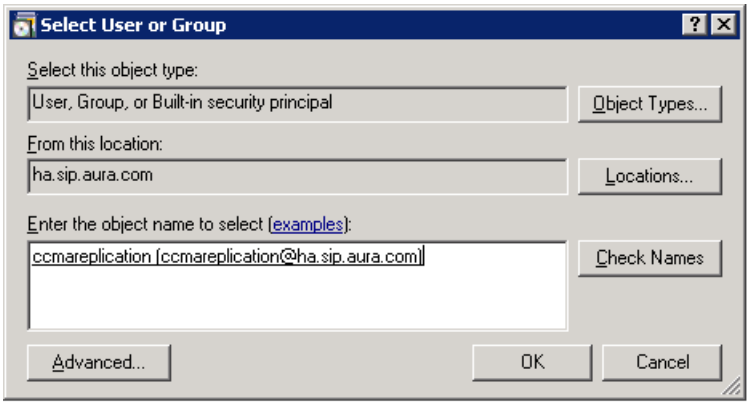


47. In the advanced **Select User or Group** dialog box, click **Find Now**.

48. From the **Search results** list, select the CCMA replication account.
Example of selecting a domain CCMA replication account:



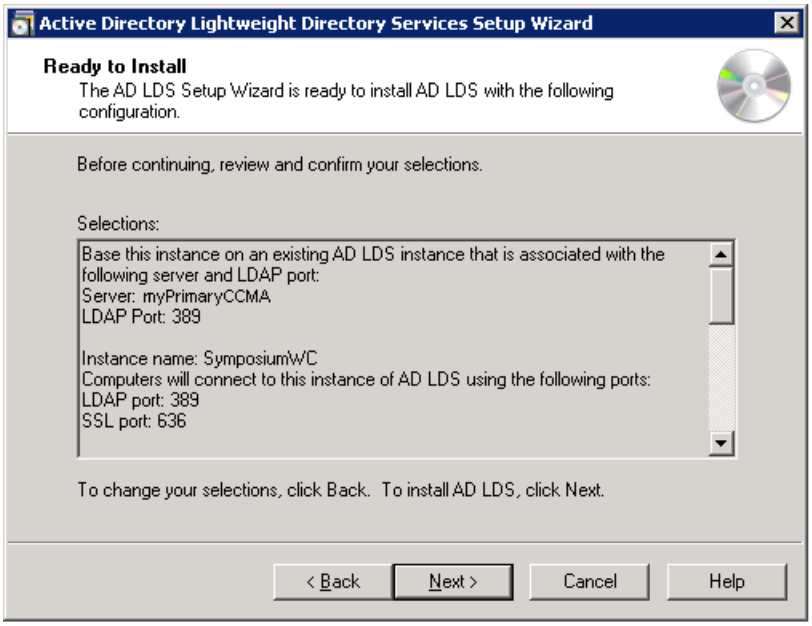
49. In the advanced **Select User or Group** dialog box, click **OK**.
Example of selecting a CCMA replication account:



50. In the **Select User or Group** dialog box, click **OK**.
Example of selecting a domain CCMA replication account:



51. Click **Next**.



52. Confirm the installation components, and click **Next**.
53. Click **Finish**.
54. If prompted, restart the server.

Variable definitions

Name	Description
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) on which

Name	Description
	commonly used contact information is stored on a server. The default value of the port is 389. Ask the system administrator to ensure that the port number is not already in use.
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.
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 636. Check with the system administrator to ensure that the port number is not already in use.

Creating a local workstation AD-LDS replication account on the standby CCMA

Before you begin

- 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.

About this task

Create a user account on the standby server. This user account is used for AD-LDS Replication. This procedure is necessary when you install both CCMA servers in a workgroup. Perform this procedure before installing CCMA on the standby server.

Important:

If you are using a domain, skip this procedure.

For this procedure, the name of the local user account is “myStandbyCCMA \CCMAReplication”. You can choose another name for the account.

Important:

The standby AD-LDS replication account name and password must match the primary AD-LDS replication account name and password. For example; If the primary AD-LDS account is myPrimaryCCMA\CCMAReplication, then the standby account must be myStandbyCCMA\CCMAReplication.

Procedure

1. Log on to the standby server.
2. Click **Start** > **Administrative Tools** > **Computer Management**.
3. In the **Computer Management** window, expand **Local Users and Groups**.
4. Right-click **Users**, and click **New User**.
5. In the **New User** dialog box, in the **User name** box, type **CCMAReplication**.
6. In the **Password** box, type a password.
7. In the **Confirm password** box, retype the password.
8. Clear the **User must change password at next logon** check box.
9. Click **Create**.
10. Click **Close** to close the **New User** dialog box.

Adding the local (workgroup) AD-LDS replication account to the standby administrators and replicator group

About this task

Add the AD-LDS replication account to the local Administrators and replicator group on the standby server. Perform this procedure before installing CCMA on the standby server.

Important:

If you are using a domain, skip this procedure.

If you are using a workgroup, you must create this AD-LDS replication account. For more information about creating a workgroup account for AD-LDS replication, see Creating a local workstation AD-LDS replication account on the standby CCMA on page 242.

For this procedure, the name of the AD-LDS replication account is CCMAReplication. You can choose another name for the account.

Procedure

1. Log on to the standby server.
2. Click **Start** > **Administrative Tools** > **Computer Management**.
3. In the **Computer Management** window, expand **Local Users and Groups**.
4. Click the **Users** folder.
5. In the right-pane, double-click **CCMAReplication**.

6. In the **CCMAReplication Properties** dialog box, click the **Member Of** tab.
7. Click **Add**.
8. In the **Select Groups** dialog box, in the **Enter the object names to select** box, type **Administrators**.
9. Click **OK**.
10. In the **CCMAReplication Properties** dialog box, on the **Member Of** tab, click **Add**.
11. In the **Select Groups** dialog box, in the **Enter the object names to select** box, type **Replicator**.
12. Click **OK**.
13. In the **CCMAReplication Properties** dialog box, click **Apply** to save your changes.
14. Click **OK** to close the **CCMAReplication Properties** dialog box.

Configuring the AD-LDS replication account as a service account

Before you begin

- If you are using a workgroup, add the local user account to the local Administrators and replicator group on the standby Contact Center Manager Administration server. See Adding the workgroup AD-LDS replication account to the standby administrators and replicator group on page 243.

About this task

Configure the AD-LDS replication account as a service account on the standby Contact Center Manager Administration server. This account is the AD-LDS replication service account. Perform this procedure before installing CCMA on the standby server.

Important:

If you are using a domain, skip this procedure.

For this procedure, the name of the AD-LDS replication account is CCMAReplication. You can choose another name for the account.

Procedure

1. Log on to the standby server.
2. Click **Start** > **Administrative Tools** > **Local Security Policy**.

3. In the **Local Security Settings** window, in the left pane, expand the **Local Policies** folder.
4. Click the **User Rights Assignment** folder.
5. In the right pane, double-click **Log on as a service**.
6. In the **Log on as a service Properties** dialog box, click **Add User or Group**.
7. In the **Select Users, Computers, or Groups** dialog box, type the account name; CCMAReplication.
8. Click **OK**.
   The account appears in the Log on as a service list.
9. Click **Apply** to save your changes.
10. Click **OK** to close the **Log on as a service Properties** dialog box.

Installing CCMA standby server software in a workgroup

Before you begin

- The primary active CCMA server must already be installed and configured. For more information about installing a primary CCMA server, see Contact Center Manager Administration primary server software installation on page 77.
- The primary active CCMA server must already be configured to support AD-LDS replication. For more information about configuring a primary CCMA server to support AD-LDS replication, see CCMA replication pre-install configuration on page 207.
- Install and configure Internet Information Systems (IIS) on your Windows 2008 Server.
- Download the most recent Contact Center Manager Administration patches to the server.

About this task

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.

Important:

If you are using a domain, skip this procedure.

Procedure

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**.

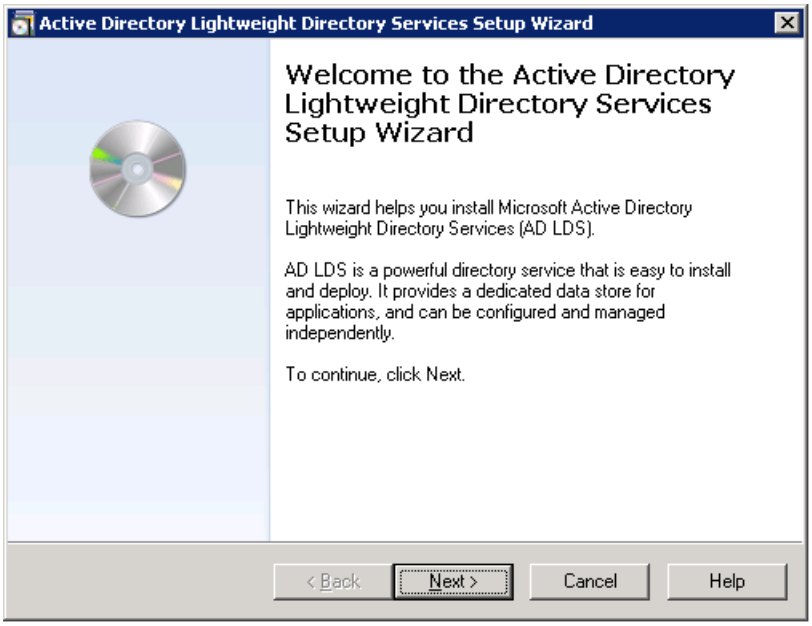
3. Click **Install** to install the Microsoft .NET Framework 3.5 SP1 and Visual C++ runtime libraries on the server.

   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 on page 245.

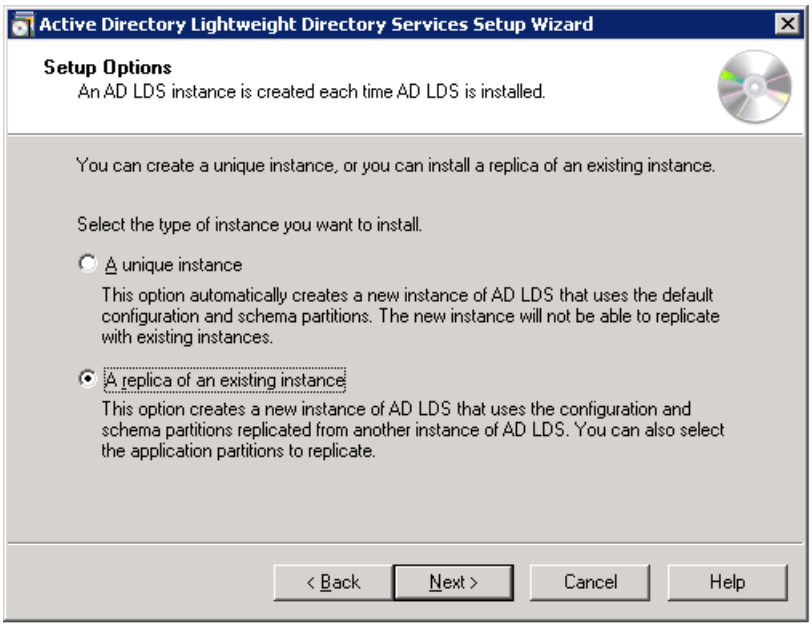
4. On the **Welcome** window, click **Next**.
5. If you already installed a Contact Center server software application on this server, click **Add a Component**, and then skip to step 8 on page 246.
6. On the **License Agreement** window, read the terms of the agreement.
7. Click **I accept the terms 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. Select **Contact Center Manager Administration (CCMA)**.
11. Click **Next**.
12. On the **Installation Destination** window, on the **Application Destination Drive** tab, select the **Application Destination Drive**.
13. Click the **Product Updates Location** tab.
14. Under **Select the parent directory where patches are stored**, select the drive on which you stored the patches. Click **Browse** to locate the folder.
15. Click **Next**.
    The System Readiness Check utility runs on the server.
16. 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.

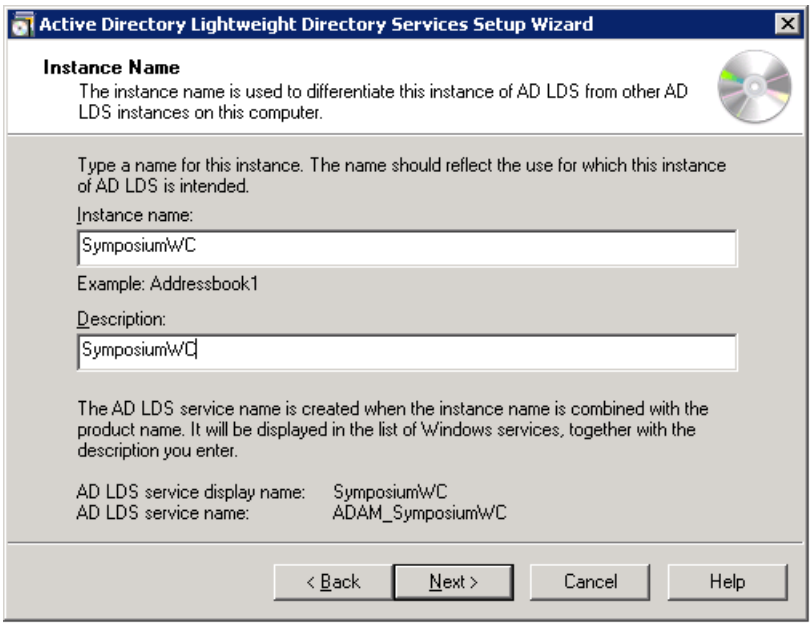
17. Click **Next**.
18. On the **Installation Data** window, type the installation details for each tab.
19. Select **Enable CCMA Replication**.
20. On the **Contact Center Installer** message box, click **Yes**.
21. Select **Next**. The **Ready to Install** window appears, review and verify the information.
22. Select **Install**. The install continues until the AD-LDS setup wizard appears.



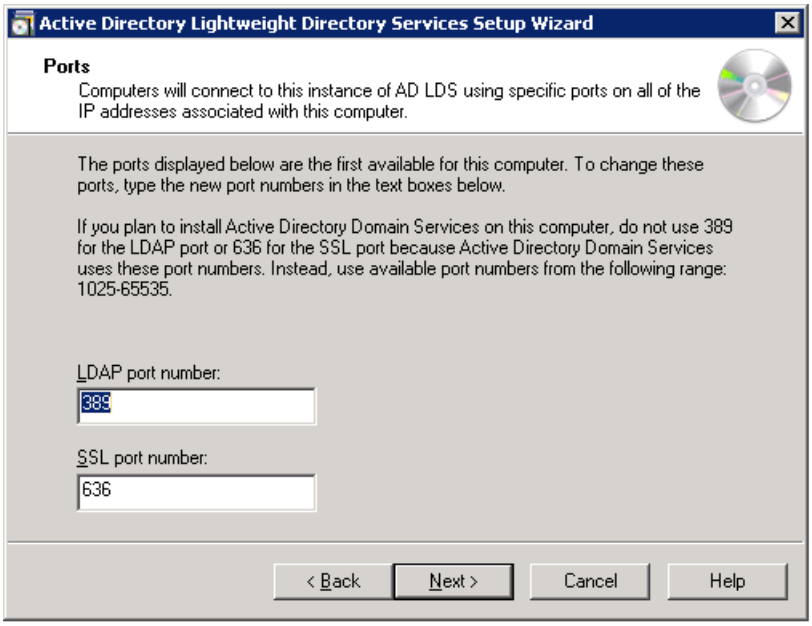
23. Select **Next**.
24. In the **Setup Options** dialog box, select **A replica of an existing instance**.



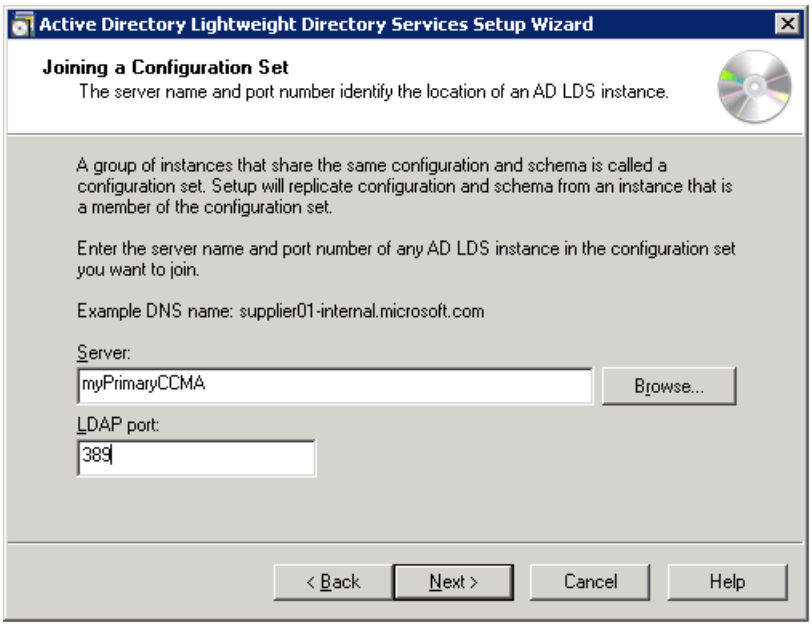
25. Select **Next**.
26. On the **Instance Name** dialog box, in the **Instance name** box, type the AD-LDS instance name. The default instance name is SymposiumWC, so type **SymposiumWC**.



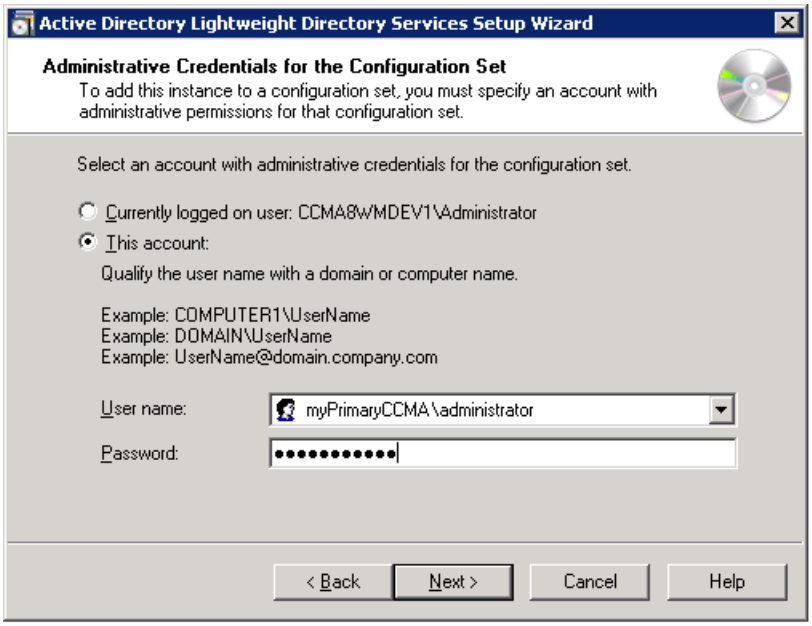
27. In the **Description** box, type **SymposiumWC**.
28. Click **Next**.
29. On the **Ports** dialog box, if no other applications use the ports, accept the default values in the **LDAP port number** and **SSL port number** boxes and select **Next**.



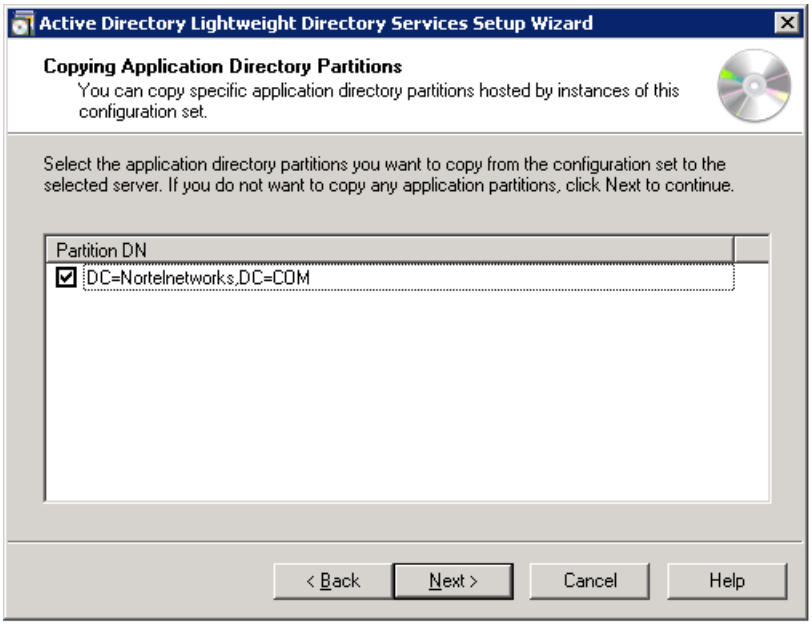
30. On the **Joining a Configuration Set** dialog box, in the **Server** box, type the name of the primary Contact Center Manager Administration server to replicate.



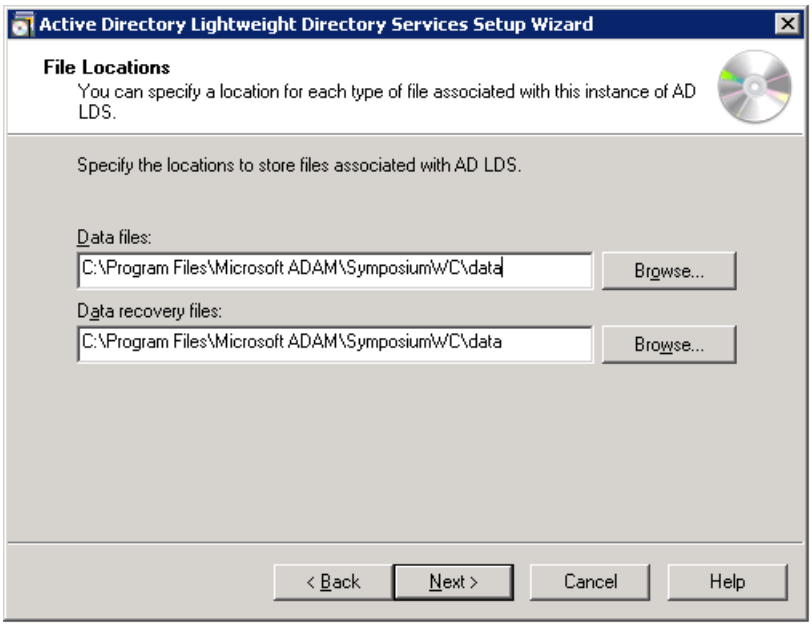
31. On the **Joining a Configuration Set** window, in the **LDAP Port** box, type the port number on the AD-LDS instance on the primary CCMA. The default is port number 389.
32. Click **Next**.
33. On the **Administrative Credentials for the Configuration Set** window, select **This account**.
34. In the **User name** box, type the primary CCMA server name followed by its Administrator name in the format <primary CCMA name>\Administrator. For example enter myPrimaryCCMA\Administrator. If you have created another administrator account for Contact Center, then enter the details (name and password) for that Primary CCMA server administrator account here. Your administrator account must have full administrative privileges.



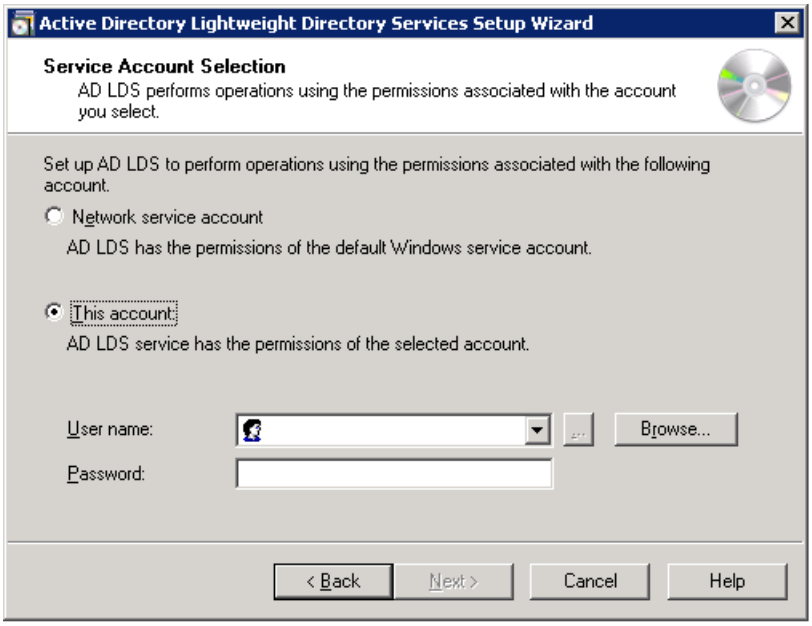
35. In the **Password** box, type the password for this user account.
36. Click **Next**.
37. In the **Copying Application Directory Partitions** dialog box, in the **Partition DN** list, select the partition **DC=Nortelnetworks,DC=COM**.



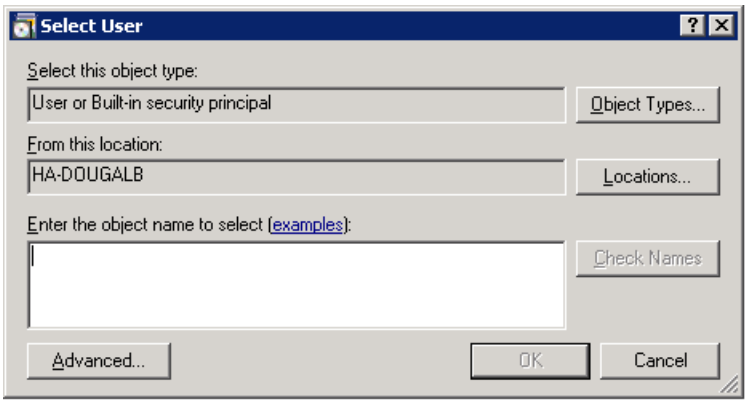
38. Click **Next**.
39. In the **File Location** dialog box, accept the default values.



40. Click **Next**.
41. In the **Service Account Selection** dialog box, select **This account**.



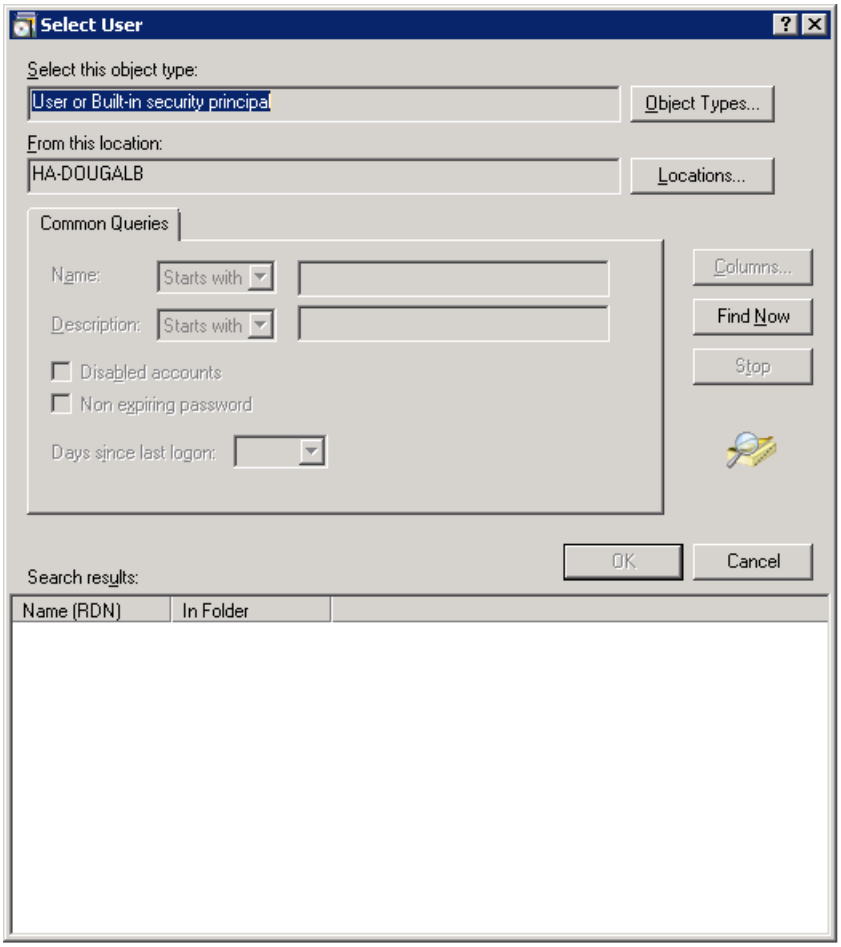
42. In the **Service Account Selection** dialog box, click **Browse** to locate the service account.
    The Select User dialog appears.



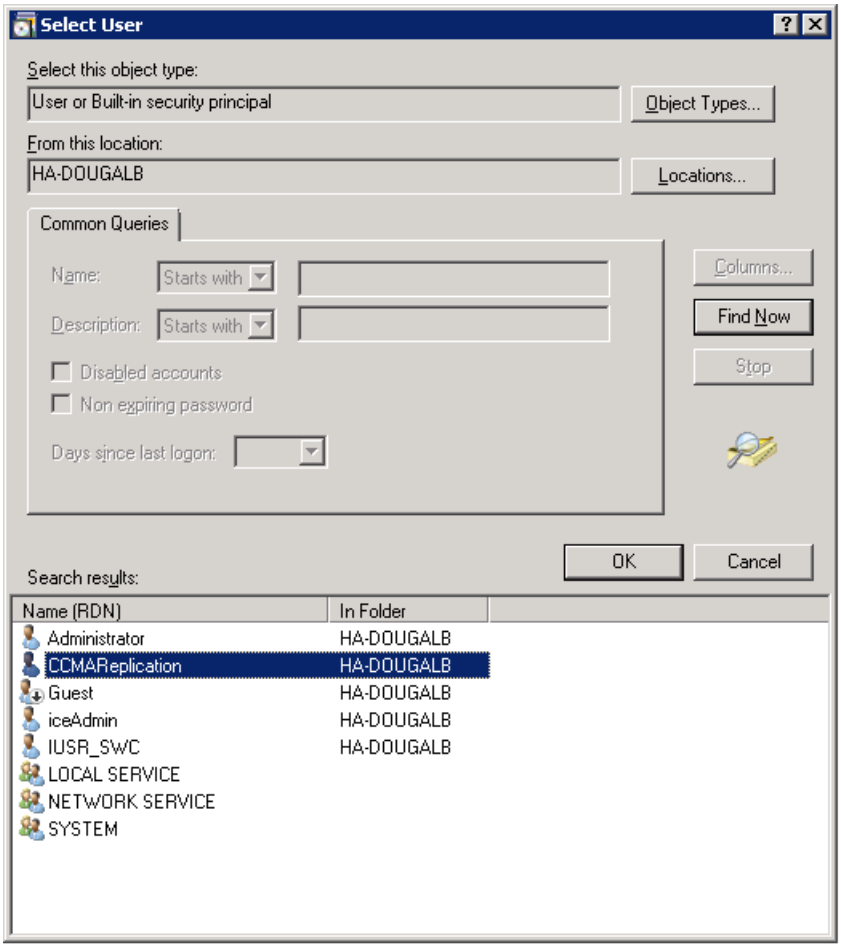
Note:

Ensure that the local server name appears in the From this location box (the computer on which you install AD-LDS). If the standby Contact Center Manager Administration server name does not appear, click Locations and browse to the correct server name.

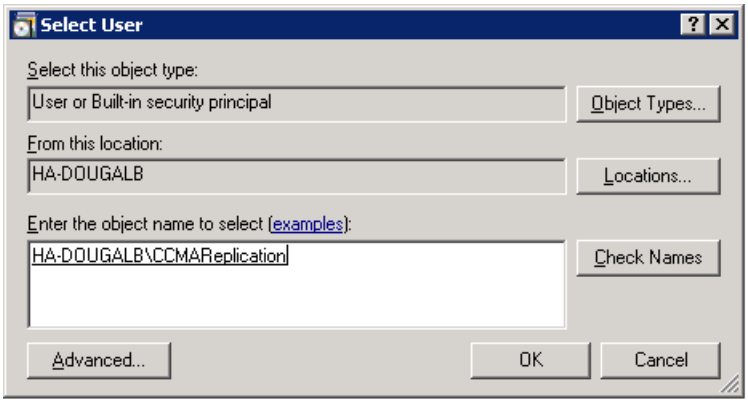
43. In the **Select User** dialog, click **Advanced**.
    The advanced Select User dialog appears.



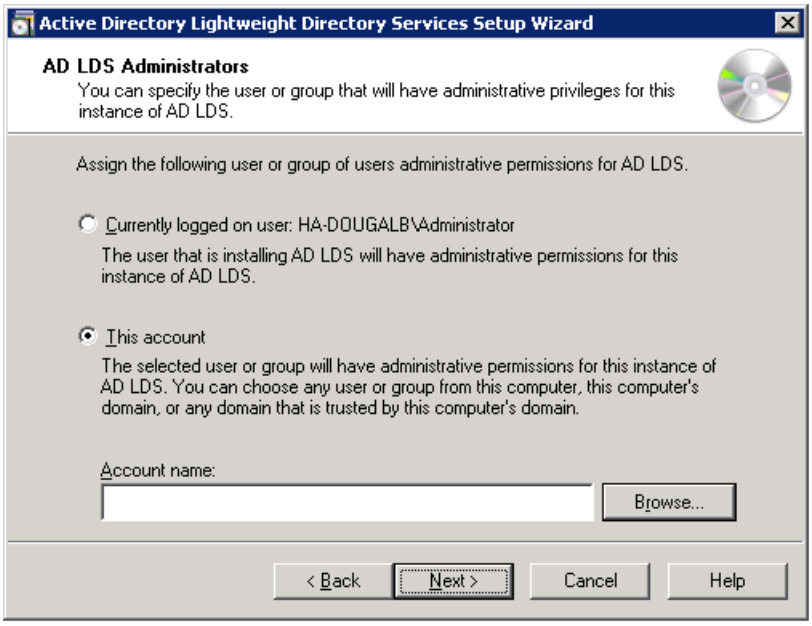
44. In the advanced **Select User** dialog box, click **Find Now**.
    The list of available users appears in the Search results list.



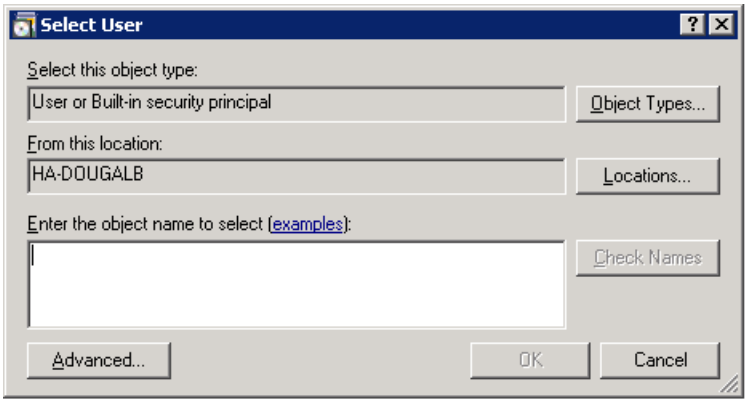
45. In the advanced **Select User** dialog box, from the **Search results** list, select the workgroup CCMA replication service account.
46. In the advanced **Select User** dialog box, click **OK**.
    The Select User dialog box appears. Example of selecting a workgroup CCMA replication service account:



47. In the **Select User** dialog box, click **OK**.
    The Service Account Selection dialog appears.
48. In the **Service Account Selection** dialog box, click **Next**.
    The AD LDS Administrator dialog box appears.
49. In the **AD LDS Administrators** dialog box, select **This account**.



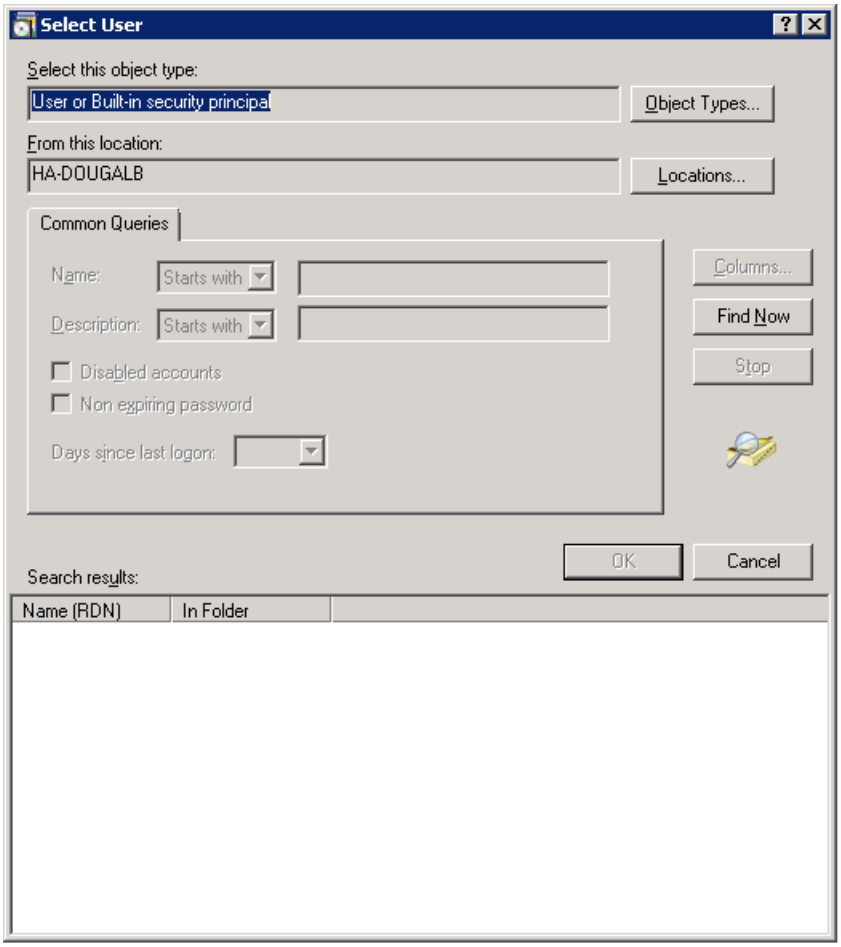
50. Click **Browse** to locate the CCMA AD-LDS replication account.
    The Select User dialog box appears. Note that the location is this CCMA server.
    Example of using a workgroup and selecting a CCMA AD-LDS replication account:



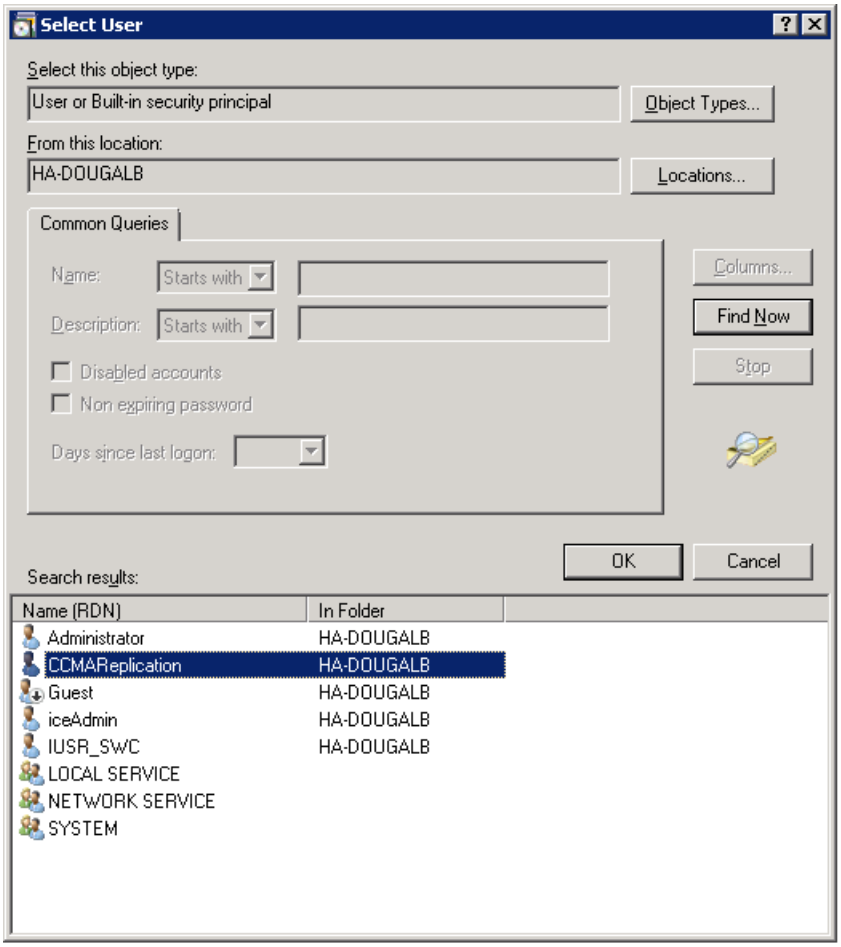
Note:

Ensure that the local server name appears in the From this location box (the computer on which you install AD-LDS). If the standby Contact Center Manager Administration server name does not appear, click Locations and browse to the server name.

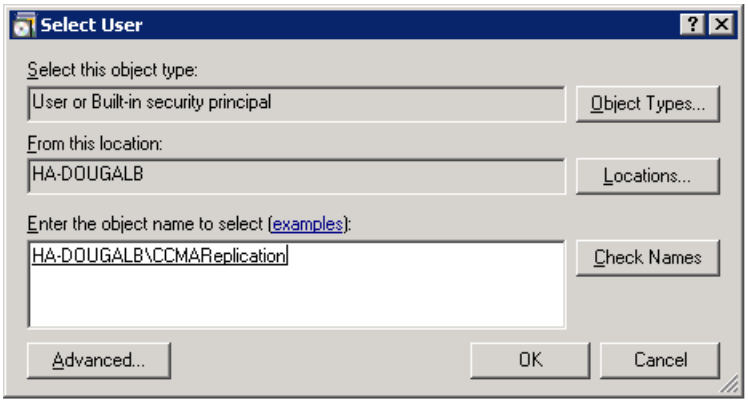
51. In the **Select User** dialog box, click **Advanced**.
    The advanced Select User dialog box appears. Note that the location is this CCMA server. Example of using a workgroup and selecting a CCMA AD-LDS replication account:



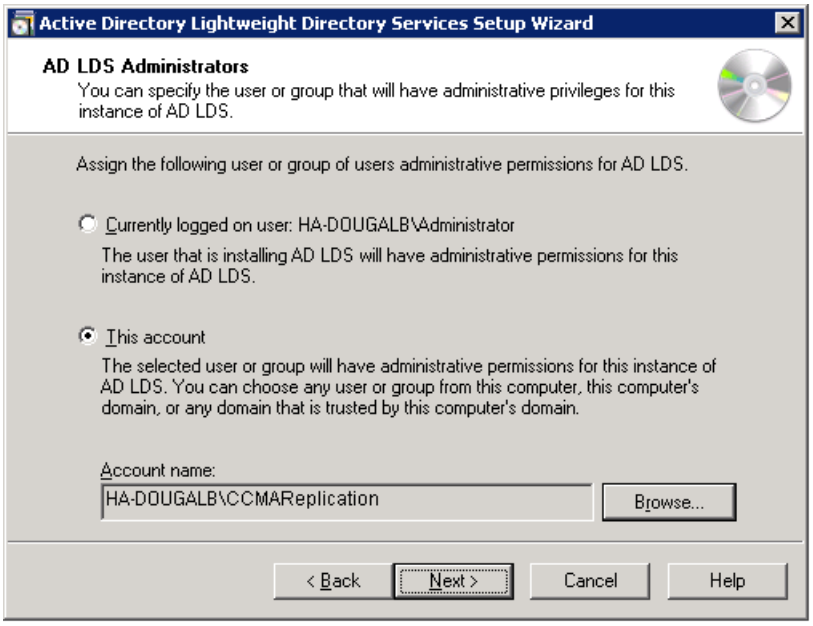
52. In the advanced **Select User** dialog box, click **Find now** to display the list of user accounts.
    Example of using a workgroup and selecting a CCMA AD-LDS replication account:



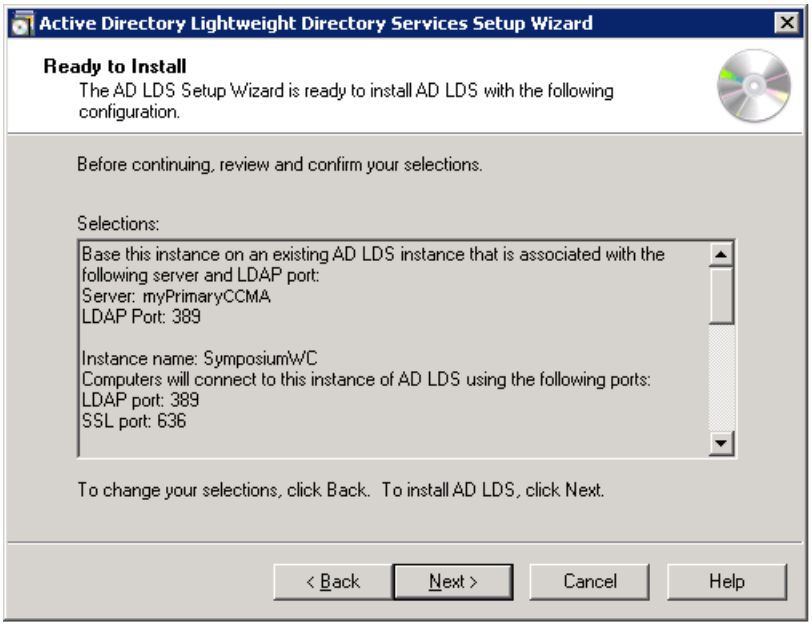
53. From the **Search results** list, select the workgroup CCMA AD-LDS replication account.
54. In the advanced **Select User** dialog box, click **OK**.
    The Select User dialog appears. Example of selecting a workgroup CCMA AD-LDS replication account:



55. In the **Select User** dialog box, click **OK**.



56. Click **Next**.
    The Ready to Install dialog appears.



57. Confirm the installation components, and click **Next**.
58. Click **Finish**.
59. If prompted, restart the server.

Variable definitions

Name	Description
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) on which

Name	Description
	commonly used contact information is stored on a server. The default value of the port is 389. Ask the system administrator to ensure that the port number is not already in use.
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.
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 636. Check with the system administrator to ensure that the port number is not already in use.

Chapter 26: 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 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 Remote Geographic Node. The CCT Remote Geographic Node server shadows the active CCT. Remote Geographic Node servers 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 on page 23.
- Partition the server hard disk 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.

Important:

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.

Important:

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

About this task

This task flow shows you the sequence of procedures you perform to install the Communication Control Toolkit software on a standby server.

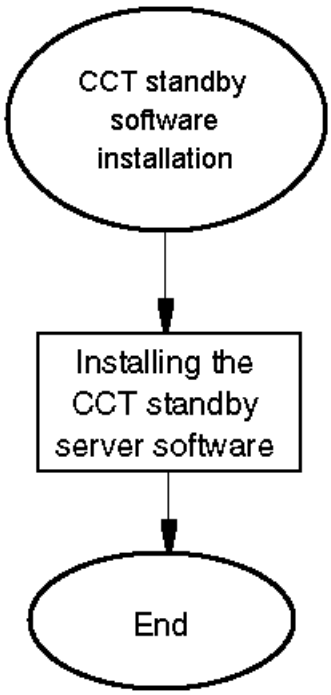


Figure 36: CCT standby software installation procedures

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

Before you begin

- Download the most recent Communication Control Toolkit patches to the server.

About this task

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.

Note:

Installation of this component installs Apache Tomcat Server. The default port number for Apache Tomcat is 8081. If you need to change the port number to avoid conflicts with third-party software, see your Apache Tomcat documentation.

Procedure

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 on page 265.
4. On the **Welcome** window, click **Next**.
5. If you already installed a Contact Center Release 6.2 server software application on this server, click **Add a Component**, and then skip to step 8 on page 266.
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 **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.
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 Communication Control Toolkit Database to**, select the drive for the Communication Control Toolkit 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 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. In the **Summary** window, confirm all information is correct.
22. Click **Install**.
23. After the installation is complete, click **Finish**.
24. If you are prompted, restart the server.

Variable definitions

Name	Description
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.

Comments? infodev@avaya.com

Chapter 27: 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 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 Remote Geographic Node. The CCMM Remote Geographic Node server shadows the active CCMM. Remote Geographic Node servers 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.

The Contact Center High Availability feature supports Contact Center Multimedia co-resident with Contact Center Manager Server, Contact Center License Manager, Server Utility, Contact Center Manager Administration, and Communication Control Toolkit.

Prerequisites to CCMM standby software installation

- Prepare your server for software installation. See Server preparation on page 23.
- Partition the server hard disk 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.

Important:

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

About this task

This task flow shows you the sequence of procedures you perform to install Contact Center Multimedia redundancy software on your server.

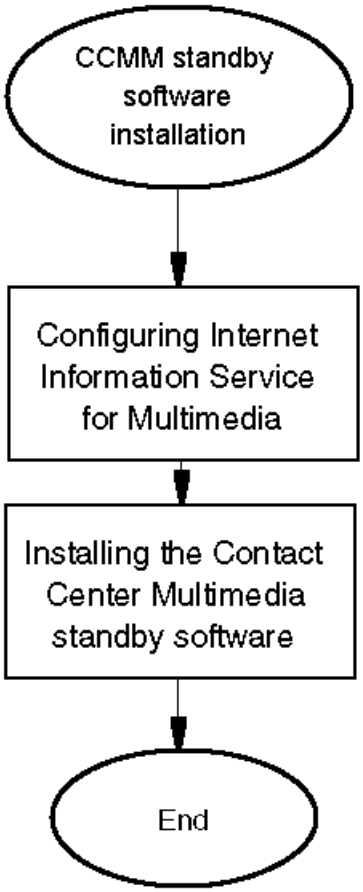


Figure 37: Contact Center Multimedia standby software installation procedures

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.

Configuring Internet Information Services

Before you begin

- 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.

About this task

Configure Internet Information Services (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.

Procedure

1. Choose **Start** > **Administrative 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 **Server Roles**, select **Web Server (IIS)**.
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:
   - Static Content
   - Default Document
   - Directory Browsing
   - HTTP Errors
   - HTTP Redirection

   Important:

   All other services check boxes must be cleared.
9. 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

Important:

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

    Important:

    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

    Important:

    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.

Installing the Contact Center Multimedia standby server software

Before you begin

- Download the most recent Contact Center Multimedia patches to the server.

About this task

Install the Contact Center Multimedia standby server software.

Procedure

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 on page 274.
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 on page 274.
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 **Multimedia Server (CCMM)**, select **CCMM Primary Server**.
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 Multimedia Server database to**, select the drive for the Multimedia 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 the **CCMM - Primary 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 prompted, restart the server.

Variable definitions

Name	Description
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.
IM Provider	The name of the instant messaging provider. Select either None, Microsoft OCS or Aura Presence Services. IM and presence features are supported for Avaya Aura® Presence Services server and Microsoft Office Communications Server.

Name	Description
	Avaya Aura® Presence Services server is supported with Avaya Aura® 6.1 and 6.2. Microsoft Office Communications Server is supported with Avaya Aura®, and Avaya Communication Server 1000.
Manager Server (CCMS)	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 (CCT)	The name of the server on which the Communication Control Toolkit software is installed.
Administration Server (CCMA)	The name of the server on which the Contact Center Manager Administration software is installed.
Web Reporting (Optional) Server Name	The IP address of the optional Web Reporting server.
Web Reporting (Optional) Port	The port number of the optional Web Reporting server. The default is 9090.
Inbound Mail Server (POP3)	The name of the server 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 boxes and enter the server information.
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,

Name	Description
	and the state information on the Agent Desktop. Web Based Statistics is an optional licensed feature and requires a Web Based Statistics feature license.
Web Stats Port	The port number of the Web Stats server. The default port number is 9086.
Web Communications Server (Optional)	The name of the server on which the Web Customer Interface is installed if Web communications is licensed in your contact center.

Chapter 28: Post install instructions

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

Disabling Java Runtime Environment updates

Before you begin

- Install the Contact Center applications.

About this task

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.

Important:

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.

Procedure

1. Choose **Start** > **Control Panel** > **Programs** > **Java**.
2. Select the **Advanced** tab.
3. Expand **JRE Auto-Download**.
4. Select **Never Auto-Download**.
5. Click **OK**.

Chapter 29: Server software uninstallation

Remove any Avaya Aura® Contact Center Release 6.2 server software from your server to prepare to move the software component to another network server.

Prerequisites for server software uninstallation

- Ensure that you have the uninstaller on the server or that you have the Contact Center Release 6.2 server installation DVD in the DVD drive.

Server software uninstallation procedures

About this task

This task flow shows you the sequence of procedures you perform to uninstall any server software.

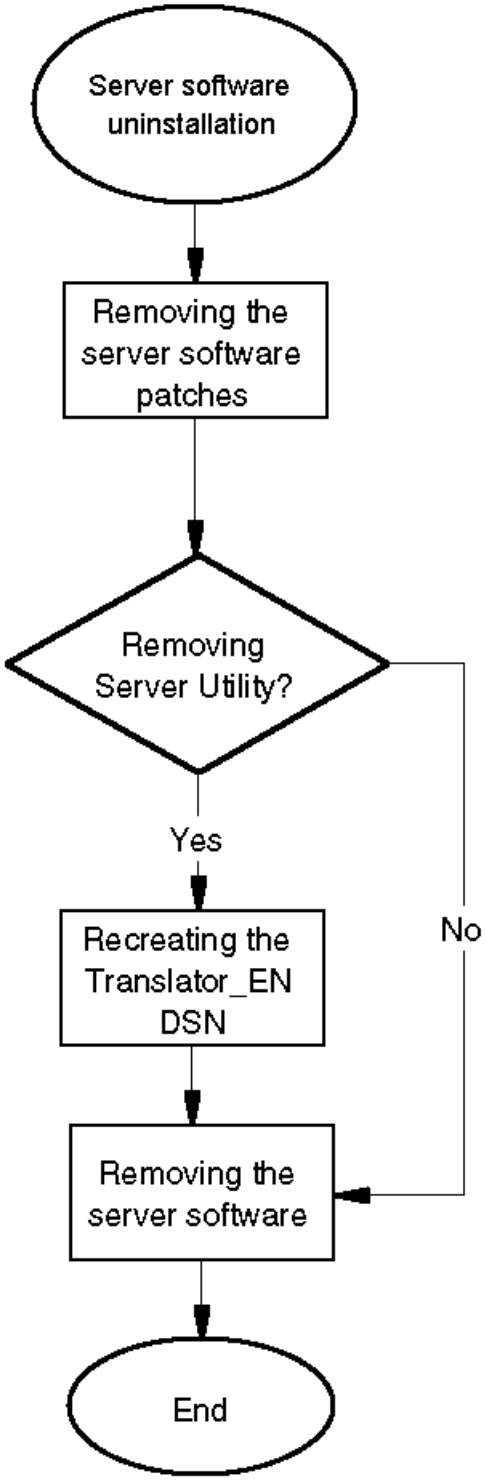


Figure 38: Server software uninstallation procedures

Removing the server software patches

Before you begin

- Ensure that you know the most recent patch.

About this task

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

Procedure

1. On the server, click **Start** > **All Programs** > **Avaya** > **Common Utilities** > **Contact Center Patch Manager**.
2. On the **Avaya Contact Center - Patch Manager** dialog box, select the **Contact Center** tab.
3. Click **Select all**.
4. Click **Remove Selected Patches**.
5. Click **Remove**.
6. Click **Close**.
7. Restart the server.

Recreating the Translator_EN DSN

About this task

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

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**.
   In the Progress section, a message appears stating DSN successfully added.

4. Click **Exit**.

Removing the server software

Before you begin

- 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 on page 283.

About this task

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 6.2 DVD.

The installation for CCMA includes AD-LDS software. The CCMA un-installation does not fully 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 CCMA Instance (CCMA data store).

Procedure

1. Click **Start** > **All Programs** > **Avaya** > **Contact Center** > **Uninstall Contact Center**.
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.

Chapter 30: CCTIVR software uninstallation

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

CCTIVR software uninstallation procedures

About this task

This task flow shows you the sequence of procedures you perform to uninstall CCTIVR software from a server.

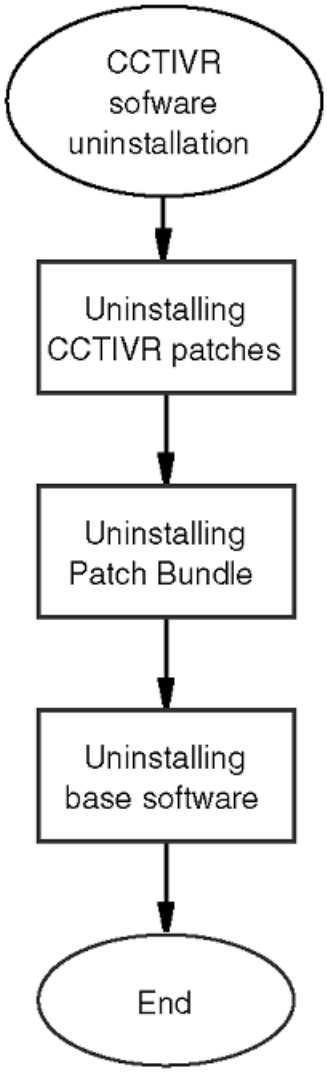


Figure 39: CCTIVR software uninstallation procedures

Uninstalling CCTIVR patches

About this task

Uninstall CCTIVR patches.

Each patch has an uninstallation file. This file is always named `uninstallpatch.pl` and is in the same directory as the associated patch (normally `C:\program\files\avaya \sssuite\patches\x\`).

Procedure

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.

Uninstalling a patch bundle

About this task

Uninstall a patch bundle.

Procedure

Use **Add/Remove Programs** in the Windows **Control Panel** dialog box to uninstall the Patch Bundle.

Uninstalling base software

About this task

Uninstall base software.

Procedure

Use **Add/Remove Programs** in the Windows **Control Panel** dialog box to uninstall the base software.

Chapter 31: Avaya Media Server uninstallation on Linux

This chapter describes how to uninstall Avaya Media Server software on Linux.

Avaya Media Server uninstallation procedures

About this task

This task flow shows you the sequence of procedures you perform to uninstall Avaya Media Server on Linux.

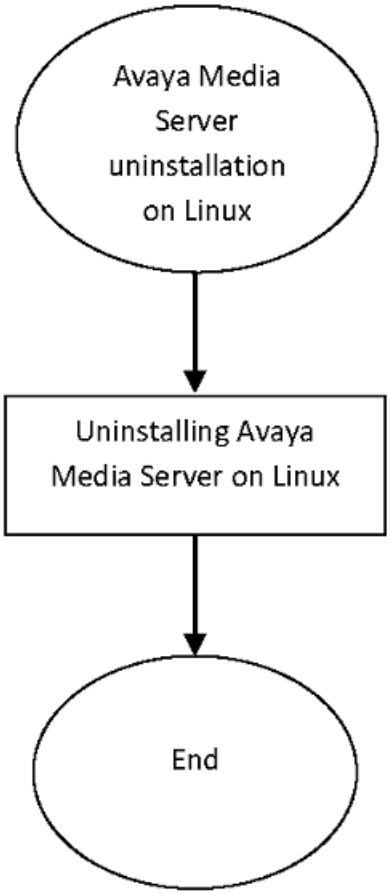


Figure 40: Avaya Media Server uninstallation on Linux procedures

Uninstalling Avaya Media Server on Linux

About this task

Perform the following procedure to uninstall Avaya Media Server on Linux.

Procedure

1. Log in as the root user.
2. Run the CCSM uninstaller by using the following commands:

```
cd /opt/avaya
./UninstallCCSM
```

3. Run the Avaya Media Server uninstaller by using the following commands:

```
cd /opt/avaya/UninstallMediaServer
./UninstallMediaServer
```

4. Follow the on-screen directions to continue with the uninstall and select whether or not any data or configuration settings are to be saved.

Appendix A: 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.

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