



Deploying Avaya Contact Center Select Software Appliance

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Chapter 1: Introduction

This document describes how to deploy, commission, and test the Avaya Contact Center Select Release 6.4 software appliance.

Purpose

This document describes network architecture, suggested deployment topologies, system capacities, and product interoperability. This document also describes the functional limitations of certain configurations. With this information, sales design specialists can make decisions about designs that meet the business needs of a customer.

Intended audience

This document is intended for people who determine the best design to meet a customer's business needs.

Related resources

The following are some additional Avaya Contact Center Select related resources.

Documentation

The following table lists some of the documents related to Avaya Contact Center Select. Download the documents from the Avaya Support website at <http://support.avaya.com>.

Category	Title	Description	Audience
Overview	<i>Avaya Contact Center Select Solution Description</i>	This document provides a technical description of Avaya Contact Center Select. It	This document is intended for personnel who

Category	Title	Description	Audience
		describes the product features, specifications, licensing, and interoperability with other supported products.	determine the best design to meet the business needs of a customer.
Deployment	<i>Deploying Avaya Contact Center Select DVD</i>	This document contains information about Avaya Contact Center Select DVD installation, initial configuration, and verification. This document contains information about maintaining and troubleshooting the Avaya Contact Center Select server.	This document is intended for personnel who deploy, commission, and test the Avaya Contact Center Select DVD.
Deployment	<i>Deploying Avaya Contact Center Select Software Appliance</i>	This document contains information about Avaya Contact Center Select Software Appliance (VMware OVA) preparation, deployment, initial configuration, and verification. This document contains information about maintaining and troubleshooting the software appliance.	This document is intended for personnel who deploy, commission, and test the Avaya Contact Center Select software appliance.
Deployment	<i>Deploying Avaya Contact Center Select Hardware Appliance</i>	This document contains information about Avaya Contact Center Select Hardware Appliance (physical server) installation, initial configuration, and verification. This document contains information about maintaining and troubleshooting the hardware appliance.	This document is intended for personnel who deploy, commission, and test the Avaya Contact Center Select hardware appliance.
Deployment	<i>Avaya Contact Center Select Business Continuity</i>	This document contains information about Avaya Contact Center Select Business Continuity.	This document is intended for personnel who deploy, commission, and test Avaya Contact Center Select Business Continuity.
Administration	<i>Administering Avaya Contact Center Select</i>	This document contains information and procedures to configure the users, skillsets, and contact center configuration data. This document contains information about creating Avaya Contact	This document is intended for personnel who perform the day-to-day administration of Avaya Contact Center Select.

Category	Title	Description	Audience
		Center Select real-time displays and historical reports.	
Administration	<i>Avaya Contact Center Select Advanced Administration</i>	This document contains information about managing Avaya Contact Center Select licensing and multimedia configuration.	This document is intended for personnel who manage Avaya Contact Center Select.
Administration	<i>Upgrading and patching Avaya Contact Center Select</i>	This document contains information about upgrading and patching Avaya Contact Center Select.	This document is intended for personnel who maintain Avaya Contact Center Select.
User guide	<i>Avaya Contact Center Select Agent Desktop Guide</i>	This document contains information about using Agent Desktop.	This document is intended for Avaya Contact Center Select Agents and Agent Supervisors.

Viewing Avaya Mentor videos

Avaya Mentor videos provide technical content on how to install, configure, and troubleshoot Avaya products.

About this task

Videos are available on the Avaya Support website, listed under the video document type, and on the Avaya-run channel on YouTube.

Procedure

- To find videos on the Avaya Support website, go to <http://support.avaya.com> and perform one of the following actions:
 - In **Search**, type `Avaya Mentor Videos` to see a list of the available videos.
 - In **Search**, type the product name. On the Search Results page, select **Video** in the **Content Type** column on the left.
- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and perform one of the following actions:
 - Enter a key word or key words in the Search Channel to search for a specific product or topic.
 - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the website.

 Note:

Videos are not available for all products.

Support

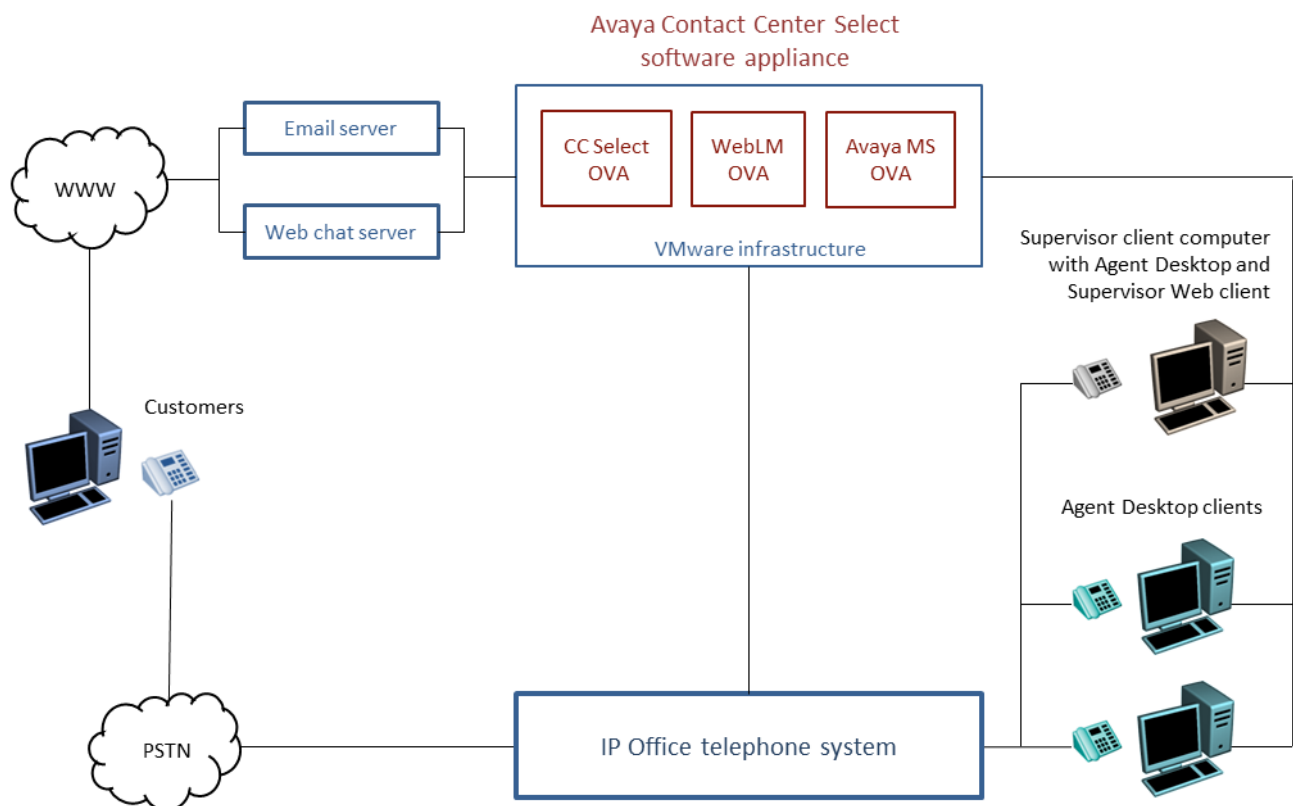
Go to the Avaya Support website at <http://support.avaya.com> for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Chapter 2: Overview

Avaya Contact Center Select supports the VMware Open Virtual Appliance (OVA) deployment method. VMware OVA deployments provide increased productivity, efficiency, and flexibility.

A virtual appliance contains a pre-installed, pre-configured Operating System and an application stack optimized to provide a specific set of services. You can use a single Open Virtual Appliance (OVA) package to distribute a Virtual Appliance. An Avaya Contact Center Select OVA package includes all of the Open Virtualization Format (OVF) information required to create an Avaya Contact Center Select Virtual Appliance on a VMware host.

The following diagram shows a typical virtualized contact center solution using the Avaya Contact Center Select, Avaya Media Server, and Avaya WebLM Virtual Appliances installed on a single VMware host server.



The Avaya Contact Center Select software appliance is a combination of the following:

- Avaya Contact Center Select OVA
- Avaya Media Server OVA
- Avaya WebLM OVA

You can use VMware vSphere or vCenter and these Avaya Contact Center Select OVA packages to create virtual machines in your virtualized environment. The OVA packages are created as VMware hardware version 8 archives.

The Avaya Contact Center Select Virtual Appliances are supported only in the following virtualization environments:

- ESXi 5.0
- ESXi 5.1
- ESXi 5.5

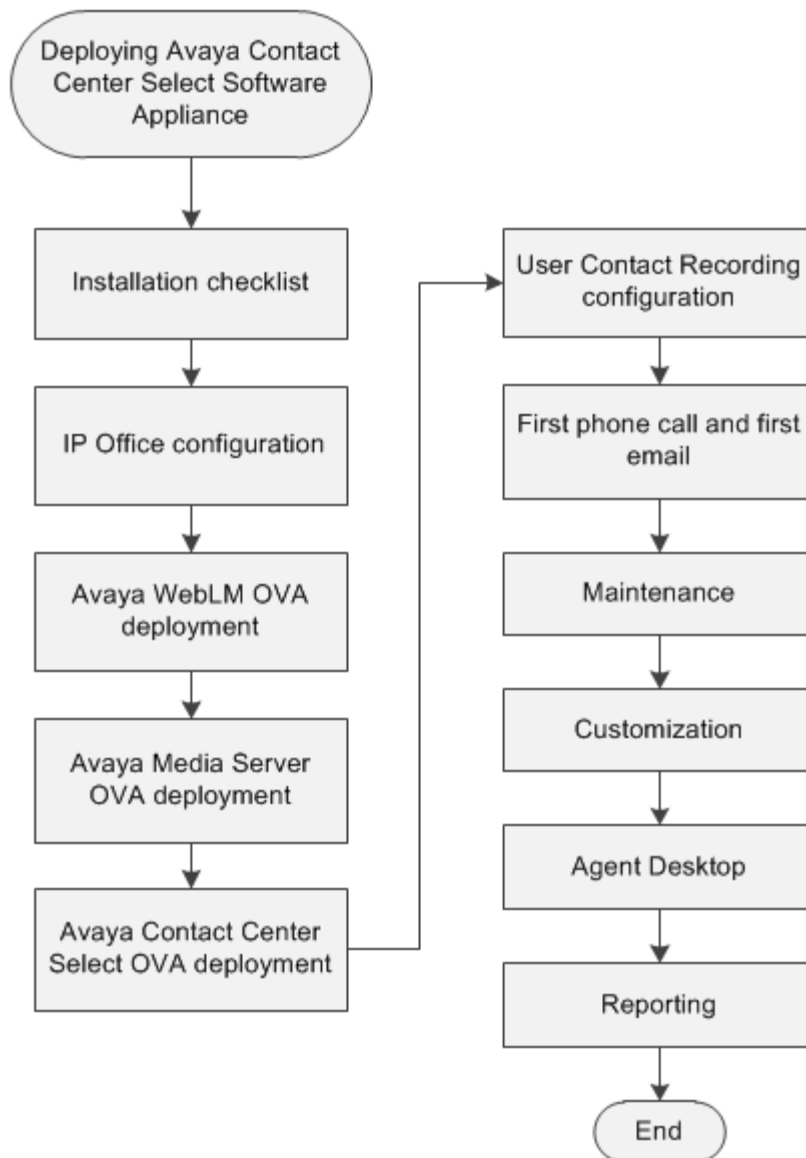
Avaya Contact Center Select supports the Avaya WebLM Release 6.3.8 guest co-resident on the same VMware host server or deployed on a separate VMware host server.

In a virtualized solution, the Avaya Contact Center Select Software Appliance and the connected IP Office telephone system must be hosted on separate VMware host servers.

The Avaya Contact Center Select server is supported in a workgroup or in a Windows domain. After you deploy Avaya Contact Center Select, you can add the server to a Windows domain. For more information about adding the Avaya Contact Center Select server to a Windows domain, see [Adding the server to a domain](#) on page 143.

Chapter 3: Deployment process

This work flow shows the sequence of tasks you perform to deploy Avaya Contact Center Select.



Chapter 4: Installation checklist

The following sections list the main Avaya IP Office, Avaya WebLM, Avaya Media Server, and Avaya Contact Center Select configuration and deployment details. You must know these configuration details before you can deploy and commission an Avaya Contact Center Select solution.

Complete these checklists before continuing.

Avaya IP Office configuration checklist

The following table lists and describes the configuration details required by IP Office.

Configuration Item	Your value	Description
IP Office Server type		Is the IP Office a Server Edition server.
Server release		The IP Office software release.
IP address		The IP address of the IP Office server.
IP Office System Password		In IP Office Manager, select <i>File > Advanced > Security Settings</i> . Select <i>System</i> and then select the <i>Unsecured Interfaces</i> tab. The IP Office <i>System Password</i> is configured here.
IP Office Manager IP address		The IP address of the client computer with IP Office Manager software.
IP Office Manager user name		The user name used to log on to IP Office Manager.
IP Office Manager password		The password used to log on to IP Office Manager.
Avaya Contact Center Select IP address		The IP address of the Avaya Contact Center Select server.
Avaya Contact Center Select username		The name of the Avaya Contact Center Select data synchronization user account. The default user name is accssync.
Avaya Contact Center Select password		The password of the Avaya Contact Center Select data synchronization user account. The default password is accssync.
SIP domain name		The name of the SIP domain used by IP Office.

Configuration Item	Your value	Description
SIP User Extension Number		The IP Office SIP User Extension Number used by Avaya Contact Center Select to register for CTI call control and SIP session messaging.
SIP User Extension Password		A password for the IP Office SIP User Extension Number. The password must be a number.
SIP User Login Code [User > Telephony > Supervisor Settings > Login Code]		The IP Office SIP User Telephony Supervisor Login Code used by Avaya Contact Center Select to register for CTI call control and SIP session messaging. The Login Code must be a number.
Short Code – Code number		A solution short code to map an IP Office telephone number to the Avaya Contact Center Select SIP User Extension Number.
Short Code - Telephone Number		A short code telephone number that outputs to an Avaya Contact Center Select CDN (Route Point).
Agent extensions		The IP Office Extensions to be used by Avaya Contact Center Select users.

Avaya WebLM deployment checklist

The following table lists and describes the configuration details required by WebLM.

Configuration Item	Your value	Description
Guest or virtual machine name in VMware inventory		The name of the WebLM virtual machine as it appears on the VMware inventory list.
Server hostname		The host name of the WebLM server
Server IP address		The IP address of the WebLM server.
Server mask		The network mask of the WebLM server.
Server domain name		The domain the WebLM server is on.
Server default gateway		The default gateway used by the WebLM server.
DNS server IP address		The IP address of the DNS server used by the WebLM server.
WebLM User Name		The user name used to log on to the WebLM web interface.
WebLM Password		The password used to log on to the WebLM web interface.
Primary Host ID		The WebLM server Host ID used to obtain a license.

Avaya Media Server deployment checklist

The following table lists and describes the configuration details required by Avaya Media Server.

Configuration Item	Your value	Description
Guest or virtual machine name in VMware inventory		The name of the Avaya Media Server virtual machine as it appears on the VMware inventory list.
Server hostname		The host name of the Avaya Media Server Linux server.
Root password		A password for the Avaya Media Server Linux server root administration account.
IP address		The IP address of the Avaya Media Server server.
Network Mask		The network mask of the Avaya Media Server server.
Default Gateway IP address		The default gateway used by the Avaya Media Server server.
DNS server IP address		The IP address of the DNS server used by Avaya Media Server.
Trusted IP address		The IP address of the Contact Center server.
SIP Domain name		The SIP domain name used by Avaya Media Server. This must match the SIP domain name as configured for your voice platform.
Language locale		The language and country locale used by Avaya Media Server.
NTP server IP address		The IP address for the Network Time Protocol (NTP) server.
Administration account "amsuser" password		A password for the Avaya Media Server Element Manager interface.

Avaya Contact Center Select deployment checklist

The following table lists and describes the configuration details required by Avaya Contact Center Select. The email related configuration items are optional.

Configuration Item	Your value	Description
Guest or virtual machine name in VMware inventory		The name of the Avaya Contact Center Select virtual machine as it appears on the VMware inventory list.
Server hostname		The host name of the Avaya Contact Center Select server.

Configuration Item	Your value	Description
		Server names must adhere to RFC1123. For more information, see <i>Avaya Contact Center Select Solution Description</i>. Avaya recommends that you configure the server final production name when installing Avaya Contact Center Select.
Server IP address		The IP address of the Avaya Contact Center Select server.
Server mask		The network mask of the Avaya Contact Center Select server.
Server default gateway		The default gateway used by the Avaya Contact Center Select server.
DNS server IP address		The IP address of the DNS server used by Avaya Contact Center Select.
Country or region		The Microsoft Windows Server 2008 country or region server setting.
Time and currency		The Microsoft Windows Server 2008 time and currency server setting.
Keyboard layout		The Microsoft Windows Server 2008 keyboard layout server setting.
Microsoft Windows Server 2008 R2 SP1 Standard Edition product key		The Microsoft Windows Server 2008 R2 SP1 Standard Edition product key used to activate the Operating System.
Administrator password		A password for the Avaya Contact Center Select server.
IP Office Server - IP Address		The IP address of the IP Office server.
IP Office Server - Voice Port		The number of the voice port used to communicate with IP Office. The default port number is 5060.
IP Office SIP Domain Name		The name of the SIP Domain used by IP Office.
IP Office Service User - Username		The <i>Service User Name</i> of the IP Office Manager for your IP Office call server.
IP Office Service User - Password		The <i>Service User Password</i> of the IP Office Manager for your IP Office server.
IP Office System Password		The System Password for the IP Office server.
Sample agent IDs		The phone number of the first IP Office sample user.
Sample CDN (Route Point)		The phone number of the IP Office sort code Telephone Number.
Avaya Media Server IP Address		The IP Address of the Avaya Media Server.

Configuration Item	Your value	Description
Avaya Media Server Locale		The language and country locale used by Avaya Media Server.
System Account Configuration Password.		A password for the Avaya Contact Center Select administration account.
WebLM IP Address		The IP address of the WebLM server.
Mailbox Display Name		The display name of the Avaya Contact Center Select mailbox.
Mailbox email address		The email address of the Avaya Contact Center Select mailbox.
Mailbox email password		The password for the Avaya Contact Center Select mailbox.
Incoming Mail Server host name		The name of the server on which email messages are received in your network.
Incoming Mail Server protocol		The communication protocol for the inbound email server.
Incoming Mail Server encryption type		The encryption type used by the inbound email server.
Incoming Mail Server port number		The port number used by the inbound email server.
Outgoing Mail Server host name		The name of the server from which email messages are sent. Your inbound and outbound mail servers can have the same name.
Outgoing Mail Server protocol type		The communication protocol for the outbound email server.
Outgoing Mail Server encryption type		The encryption type used by the outbound email server.
Outgoing Mail Server port number		The port number used by the outbound email server.
Outgoing Mail Server SMTP Authentication type		The authentication type used by the outbound email server.

Part 1: IP Office configuration

Chapter 5: IP Office configuration

Configure IP Office to integrate with Avaya Contact Center Select. This section does not describe IP Office basic configuration for system settings, licensing, or networking. This section describes only how to integrate a working IP Office server with Avaya Contact Center Select.

The procedures in this section use examples to describe how to configure IP Office to integrate with Avaya Contact Center Select. The IP Office configuration values used in the following procedures match the default values used by Avaya Contact Center Select. These values might not be suitable for your solution. If you use different IP Office configuration values, remember to enter the different values when installing and commissioning Avaya Contact Center Select.

Avaya recommends that you configure IP Office before installing Avaya Contact Center Select.

You must complete the procedures in this IP Office section in sequential order.

IP Office supported versions

Each Avaya Contact Center Select connects to a single IP Office Server Edition Primary server. Avaya Contact Center Select Business Continuity-enabled solutions support connecting to an IP Office Secondary server. A Small Community Network (SCN) is a system of networked IP Office telephone systems that can share extension numbers and user names. Each IP Office SCN supports a single connected Avaya Contact Center Select. The Avaya Contact Center Select server and the connected IP Office server must be located at the same campus location.

To support an IP Office SCN, Avaya Contact Center Select must connect to an IP Office Server Edition Primary server in that SCN network.

Avaya Contact Center Select supports only the following versions of IP Office:

- IP Office Server Edition Release 9.0.3, 9.0.4, and Release 9.1.
- IP Office 500V2, Release 9.0.3, 9.0.4, and Release 9.1 software, Standard Mode, Advanced Edition license

Avaya Contact Center Select does not support other versions of IP Office.

Avaya Contact Center Select does not support IP Office 500V2 Basic mode.

Avaya Contact Center Select Business Continuity is supported only with IP Office Server Edition Release 9.1. For more information, see *Avaya Contact Center Select Business Continuity*.

Avaya Contact Center Select supports TLS communication with IP Office Server Edition Release 9.1. For more information about configuring TLS security certificates, see *Avaya Contact Center Select Advanced Administration*.

Using IP Office Manager

Before you begin

- Install the IP Office Manager software on a client computer.
- Ensure the client computer can communicate with the IP Office server.

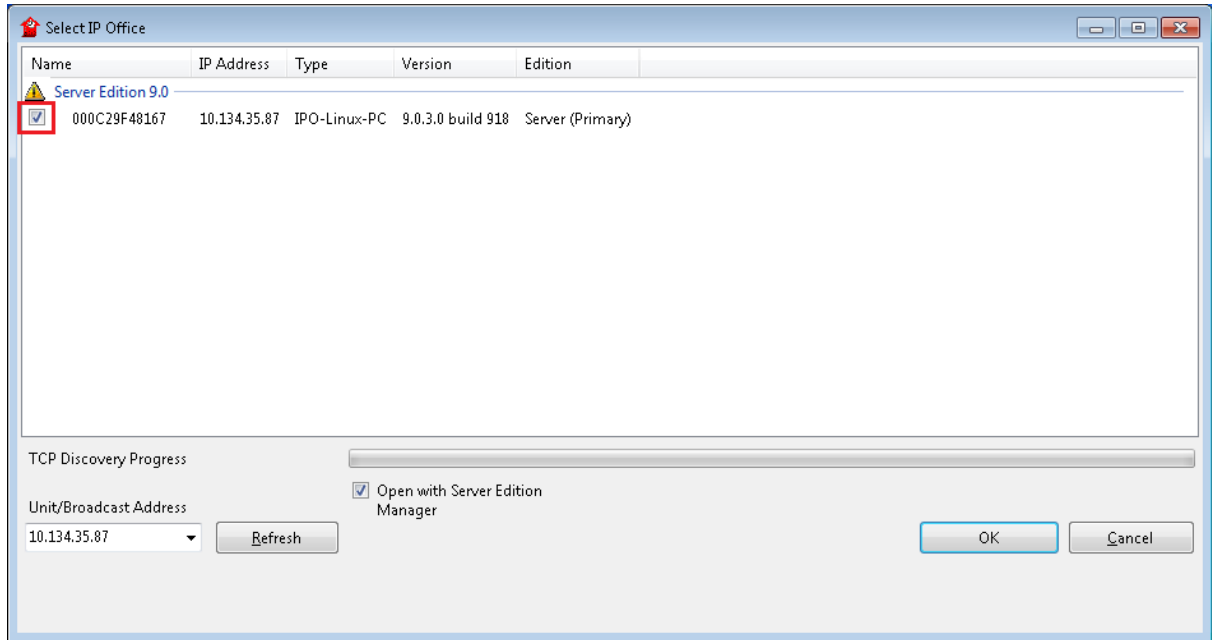
About this task

IP Office Manager is a component of the IP Office administration suite of applications. You use IP Office Manager to configure IP Office. IP Office Manager runs on a Windows computer and connects to the IP Office system using an Ethernet LAN connection.

IP Office Manager is an off-line editor. Use IP Office Manager to connect to your IP Office server and retrieve a local copy of the IP Office current configuration settings. You can then edit the local copy of the IP Office configuration and when you are ready, save your updated configuration data back to the IP Office server.

Procedure

1. On the client computer, select **Start > All Programs > IP Office > Manager**.
2. On the **Configuration Service User Login** message box, in the **Service User Name** box, type the user name. The default name is Administrator.
3. In the **Service User Password** box, type the user password. The default password is Administrator.
4. From the menu, select **File > Close Configuration**. This closes any open and potentially out-of-date configurations.
5. To retrieve the current (most recent) IP Office configuration settings, from the menu, select **File > Open Configuration**.
6. In the **Select IP Office** window:
 - If the required IP Office server is listed, use the check box to select your IP Office server from the list of available servers.
 - If the required IP Office server is not listed, in the **Unit/Broadcast Address** box type the IP address for your IP Office server. Click **Refresh** to perform a new search. The IP Office server then appears in the list of available servers. Use the check box to select your IP Office server from the list of available servers.



7. Click **OK**.
8. On the **Configuration Service User Login** message box, in the **Service User Name** box, type the user name. The default name is Administrator.
9. In the **Service User Password** box, type the user password. The default password is Administrator.
10. IP Office Manager opens and displays the current configuration data for your IP Office server.

Configuring the data synchronization user account

About this task

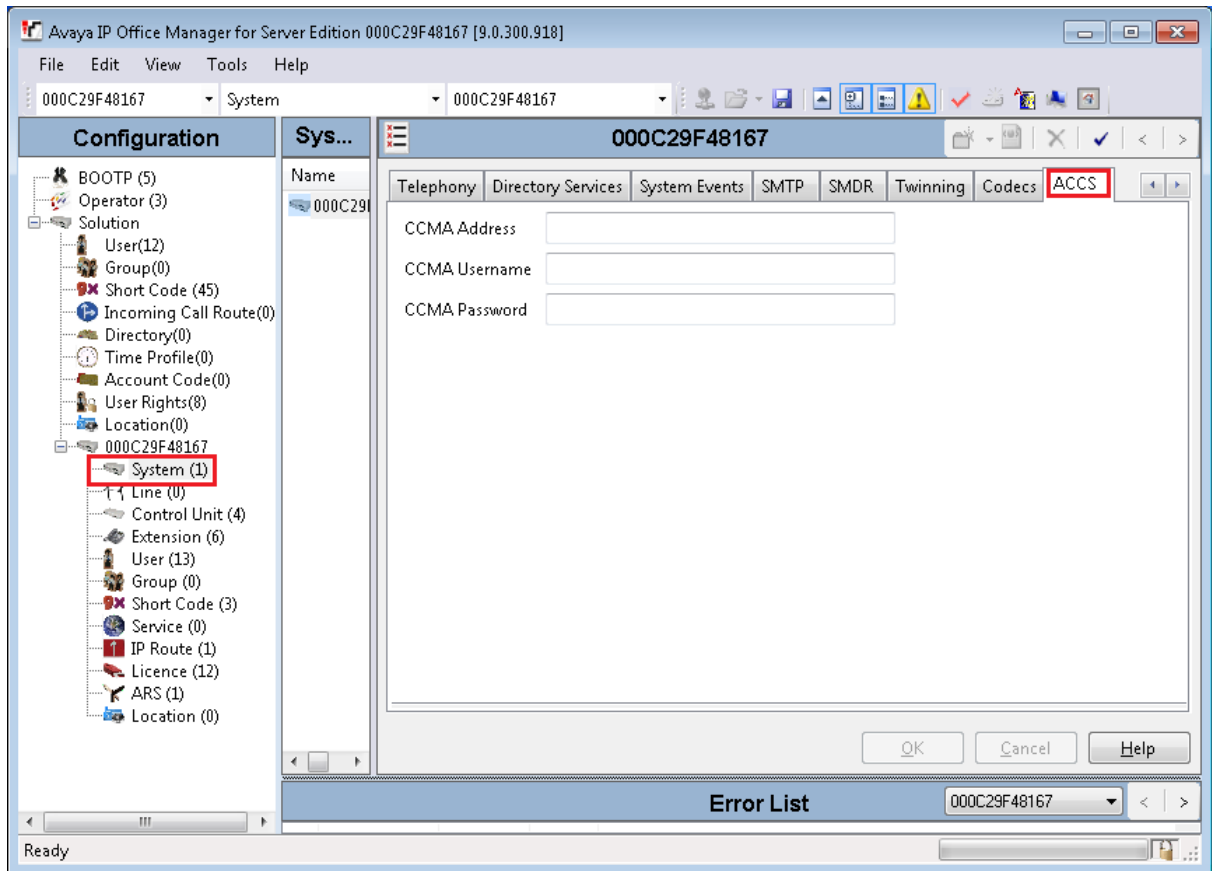
Configure the user account used by IP Office to maintain data synchronization with Avaya Contact Center Select. The name and password of this account must match the IP Office server details as configured in Contact Center Manager Administration (CCMA) on the Avaya Contact Center Select server.

For user data synchronization, IP Office connects to Avaya Contact Center Select using the Contact Center Manager Administration “accssync” user account details.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the IP Office server, select **System**.

- For IP Office Release 9.0.3, in the right pane, select the **ACCS** tab. For IP Office Release 9.1, select the **Contact Center** tab.



- For IP Office Release 9.1, from the **Contact Center Application** list, select Avaya Contact Center Select.
- In the **CCMA Address** box, type the IP address of the Avaya Contact Center Select server.
- In the **CCMA Username** box, type the name of the Avaya Contact Center Select data synchronization user account. The default user name is `accsync`.
- In the **CCMA Password** box, type the password of the Avaya Contact Center Select data synchronization user account. The default user password is `accsync`.
- Click **OK**.

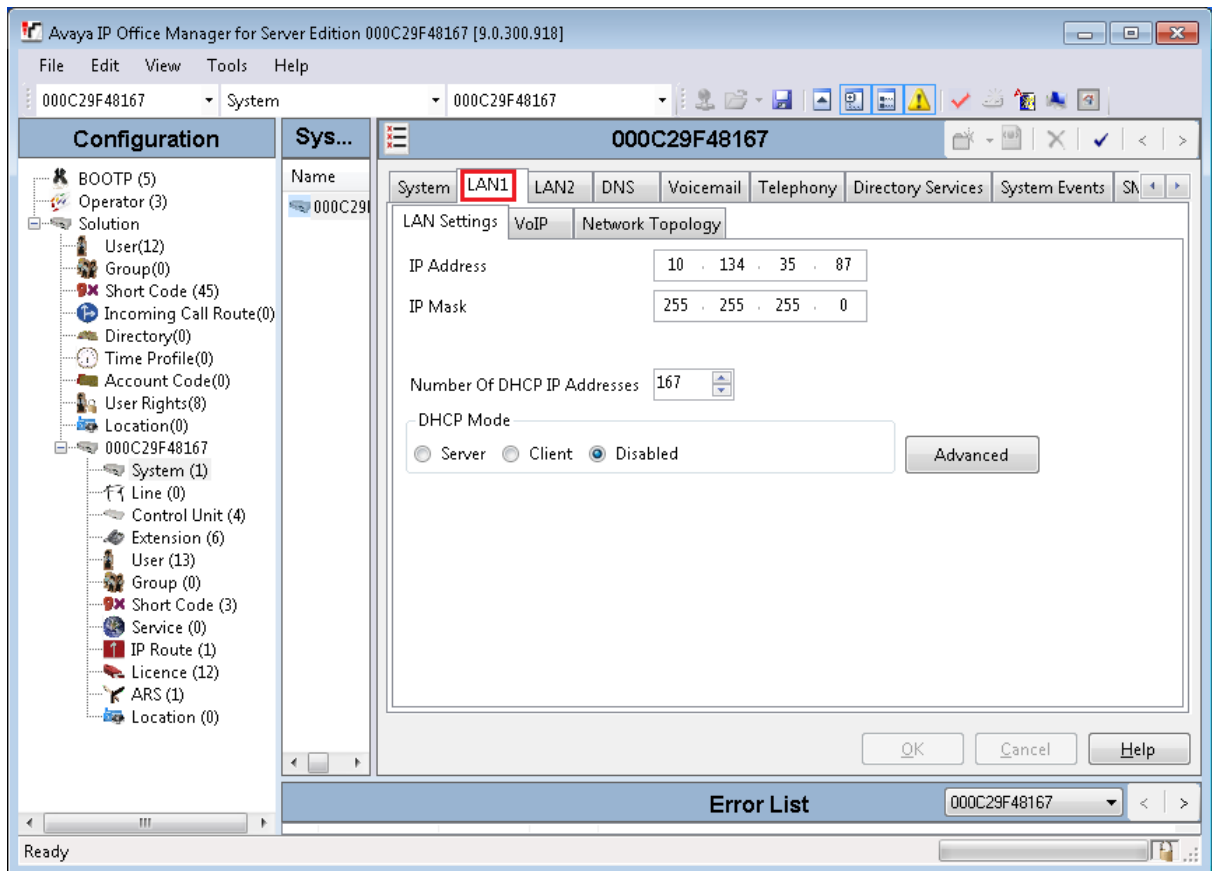
Verifying the IP Route configuration

About this task

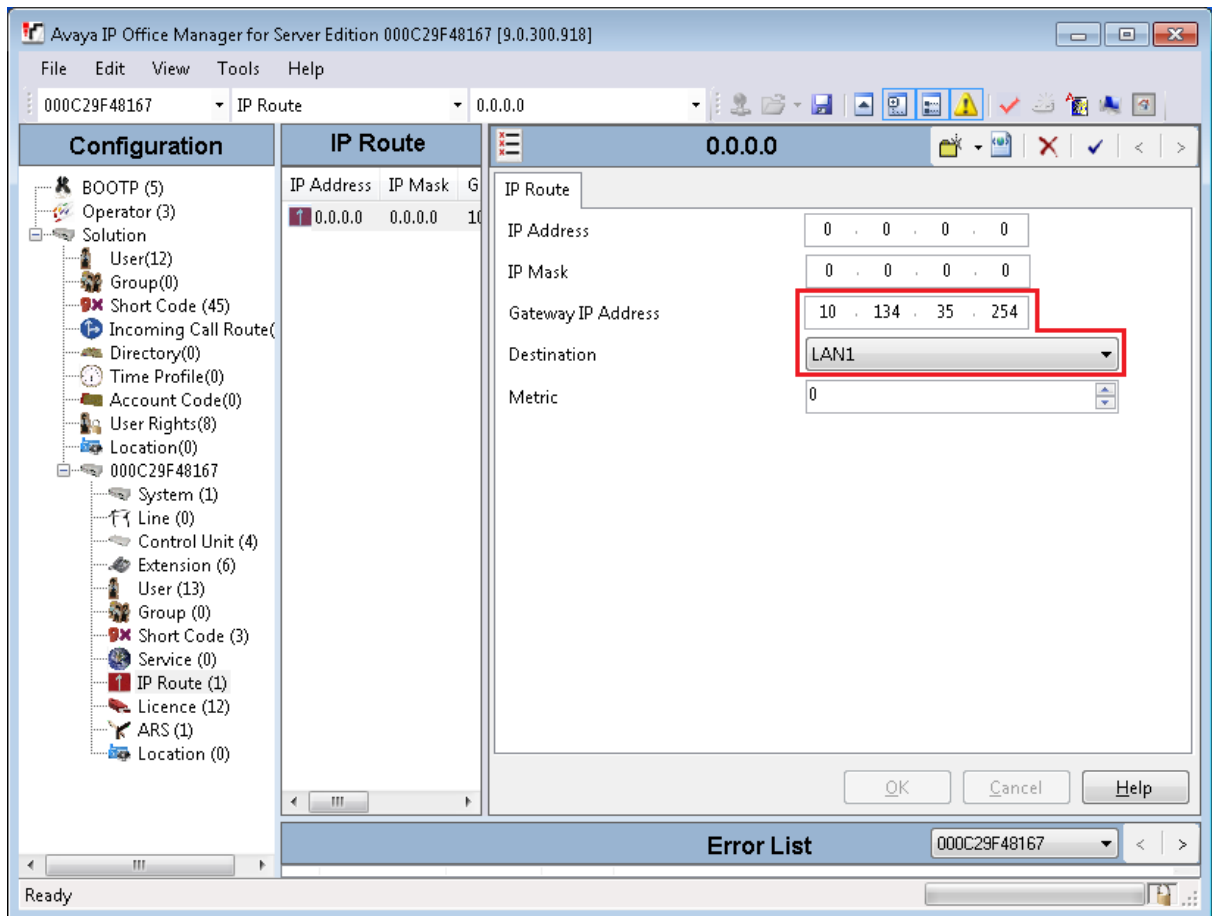
Verify the Local Area Network (LAN) Ethernet and IP Route configuration details to ensure IP Office can communicate with IP Office Manager, Avaya Contact Center Select, and agent telephones.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the IP Office server, select **System**.
3. Note the IP Office network settings. Note which network interface IP Office is using for local communications. For Avaya Contact Center Select deployments, IP Office must use LAN1 for local communications.



4. In the **Configuration** pane, under the IP Office server, select **IP Route**. If there are no existing IP Routes, right-click **IP Route** and select **New**.
5. On the **IP Route** tab, in the **IP Address** box, type 0.0.0.0.
6. In the **IP Mask** box, type 0.0.0.0.
7. In the **Gateway IP Address** box, type the IP address of your gateway.
8. From the **Destination** list, select the network interface that IP Office uses for local communication. For example, select LAN1.



9. Click **OK**.

Configuring the SIP domain name

About this task

Configure the IP Office SIP domain name. A SIP domain is a logical space where SIP-enabled devices exist, authenticate, and communicate.

In a SIP network a destination address consists of both a user and a domain. This is referred to as a Uniform Resource Identifier (URI). The user portion of the URI is the destination that is being communicated to and the domain portion is the logical grouping that the destination belongs to.

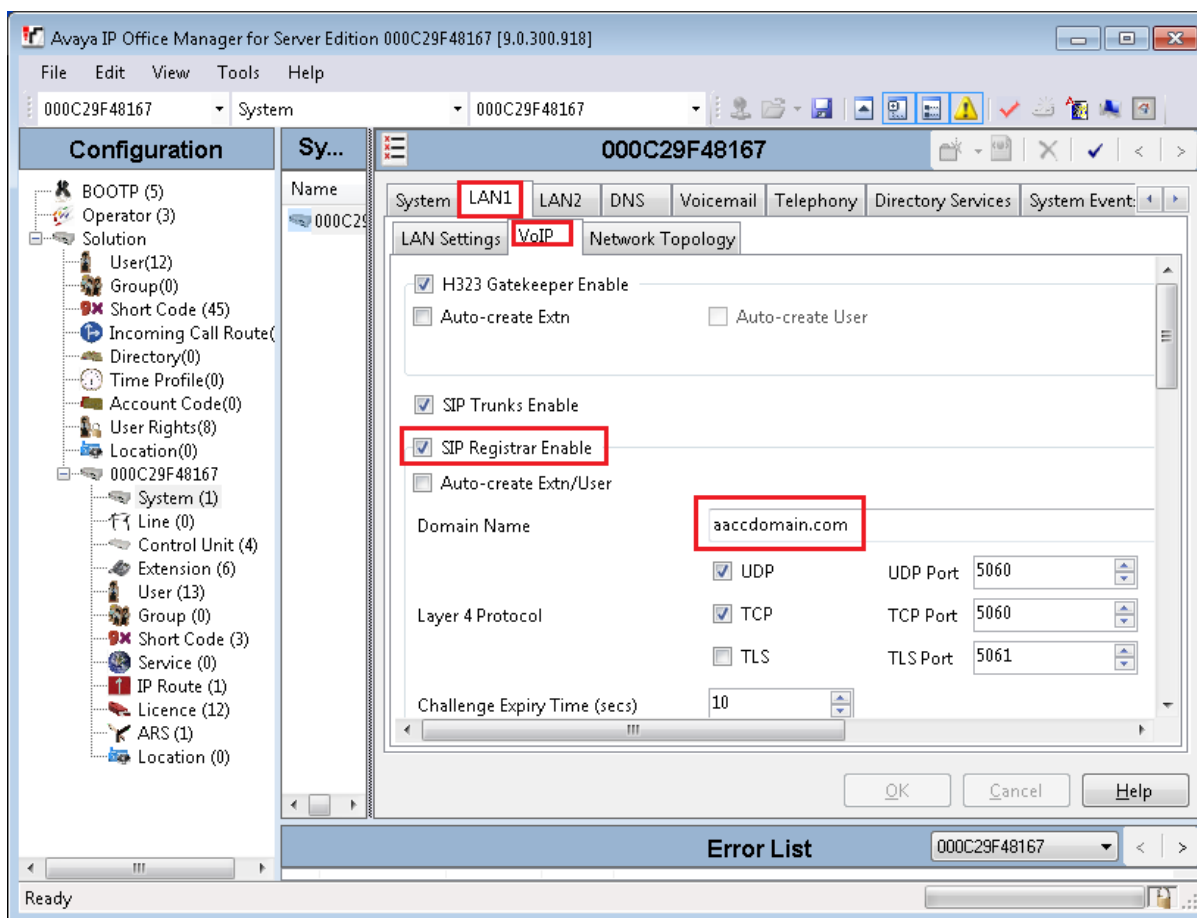
! Important:

If you add or change the domain name of an active IP Office server, the IP Office server restarts.

The Avaya Contact Center Select SIP domain name must match the IP Office SIP domain name.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the IP Office server, select **System**.
3. In the right pane, select the **LAN1** tab.
4. Select the **VoIP** tab.
5. Enable **SIP Registrar Enable**.
6. In the **Domain Name** box, type the name of the SIP domain to be used with Avaya Contact Center Select.



7. Click **OK**.

Configuring the SIP User Extension number

About this task

Configure an IP Office SIP User Extension number. Avaya Contact Center Select uses this SIP User Extension number and Telephony Supervisor *Login Code* password to register for CTI call control and SIP session messaging.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the IP Office server, select **User**.
3. Right-click on **User**, and select **New**.
4. In the right pane, select the new **User** tab.
5. In the **Name** box, type a descriptive name for the user.
6. In the **Password** box, type a password for the user. For example, type 123456. This password must be a number.
7. In the **Confirm Password** box, re-type a password for the user. For example, type 123456.
8. In the **Extension** box, type the extension number of the user. For example, type 6000.
9. Select the **Telephony** tab.
10. On the **Telephony** tab, on the **Supervisor Settings** sub-tab, in the **Login Code** box, type a password for Avaya Contact Center Select registration. For example, type 123456. This password must be a number.
11. Click **OK**.
12. On the **Would you like a new VoIP extension created with this number** message box, select **SIP Extension** and click **OK**.

Configuring a short code for Contact Center Route Points

About this task

Configure a solution short code to map an IP Office telephone number to the Avaya Contact Center Select SIP User Extension Number. A short code configures IP Office to perform an action if a specific number is dialed.

For example:

- 3000 is configured in Avaya Contact Center Select as a CDN (Route Point).
- 6000 is configured in IP Office as the Avaya Contact Center Select SIP User Extension Number.

Create a short code 6000|>>3000. All customer calls to telephone number 3000 are forwarded to extension 6000 and from there to Avaya Contact Center Select. Avaya Contact Center Select can then treat the customer call and route it to a contact center agent.

A CDN (Route Point) is a logical address used by Contact Center to accept incoming contacts or as a point to which contacts are routed. A Route Point is an address that enables incoming voice contacts (phone calls) to be treated by Contact Center.

You can add multiple short codes and configure each one to map to an Avaya Contact Center Select CDN (Route Point) number. If you create additional short codes to map IP Office calls to Avaya Contact Center Select, you must add the corresponding CDN (Route Point) number in Contact Center Manager Administration on the Avaya Contact Center Select server.

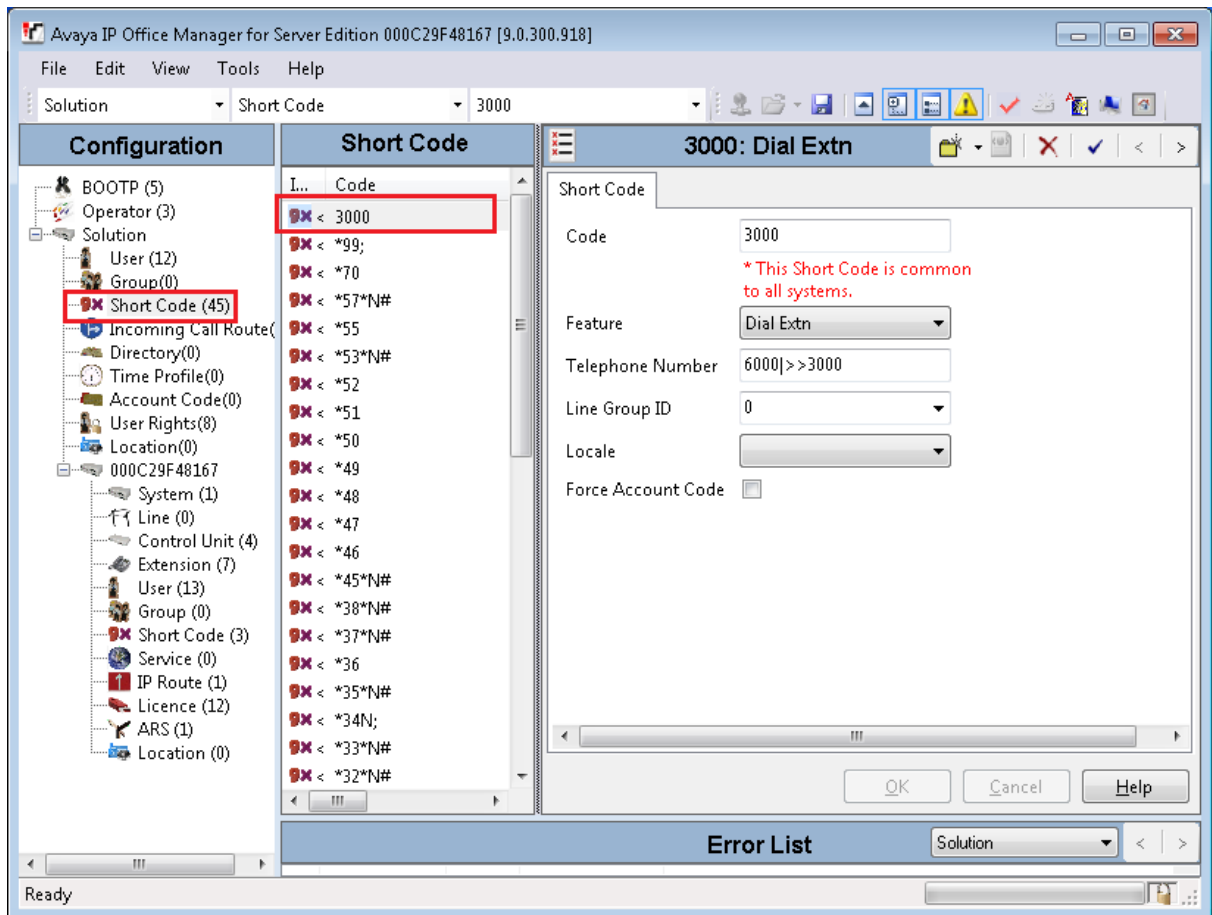
Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the **Solution** node, select **Short Code**, right-click and select **New**.
3. In the right pane, in the **Code** box, type a CDN (Route Point) number. When this number is matched, the other short code fields activate. For example, type 3000, where 3000 is an Avaya Contact Center Select CDN (Route Point).
4. From the **Feature** list, select **Dial Extn**. If you do not see the **Dial Extn** option, ensure that you have selected the **Short Code** menu item under **Solution**, and not the local **Short Code** menu item for your IP Office. The Solution Short Code is common to all systems.
5. In the **Telephone Number** box, type the number output by the short code. For example, type the following: 6000|>>3000
 - Where 3000 is configured in Avaya Contact Center Select as a CDN (Route Point).
 - Where 6000 is the Avaya Contact Center Select SIP User Extension Number.

Note: Ensure there are no spaces in the **Telephone Number** box.

If a customer dials 3000, then 3000 is sent to telephone number 6000 and Avaya Contact Center Select.

6. Click **OK**.



Configuring Contact Recording

Before you begin

- Ensure the Contact Recorder application is installed, configured, and working on your IP Office. For more information about Contact Recorder, see *Installing Contact Recorder for IP Office* on the Avaya Support web site at <http://support.avaya.com>.

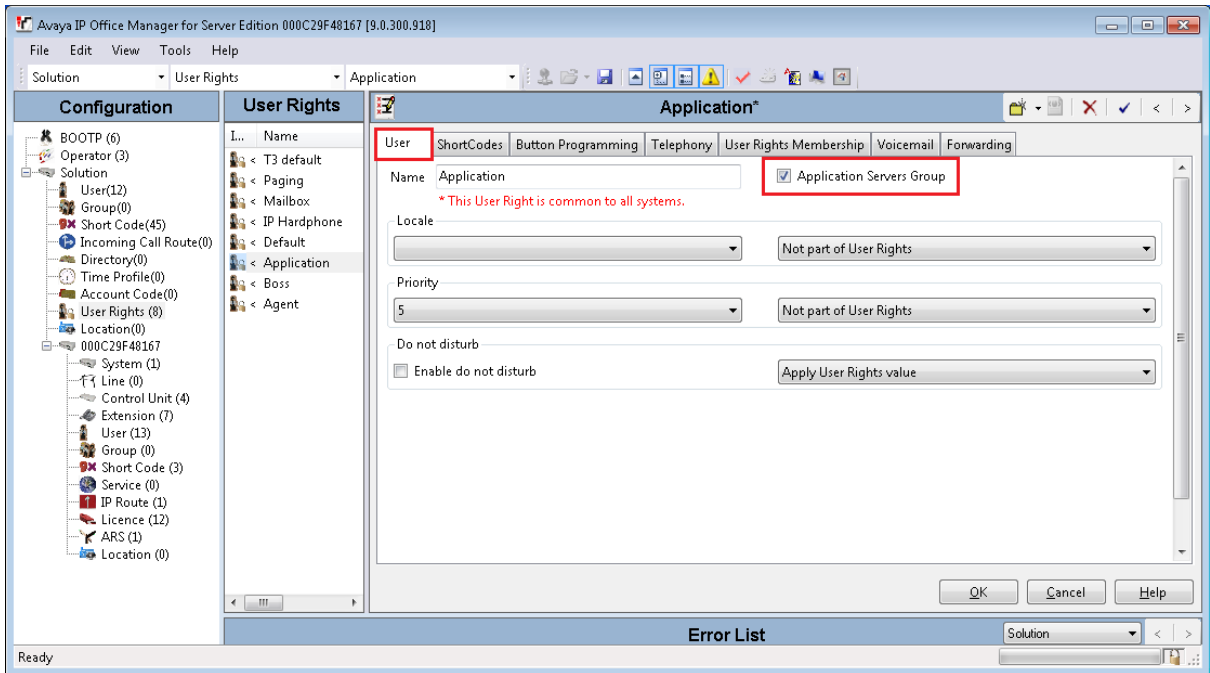
About this task

Configure the User and User Rights settings to enable Contact Recording for Avaya Contact Center Select agents and agent supervisors using IP Office.

Procedure

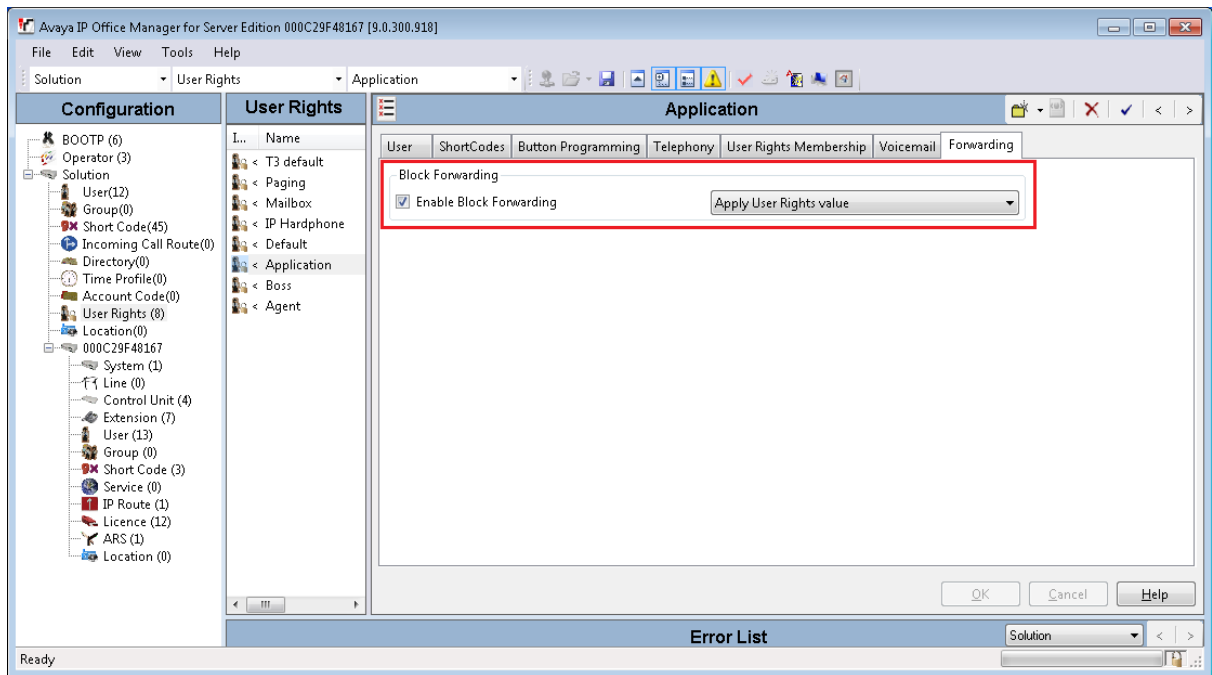
1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the **Solution** node, select **User Rights**.

3. In the middle pane, select **Application**.
4. In the right **Application** pane, select the **User** tab.
5. Select **Application Servers Group**.

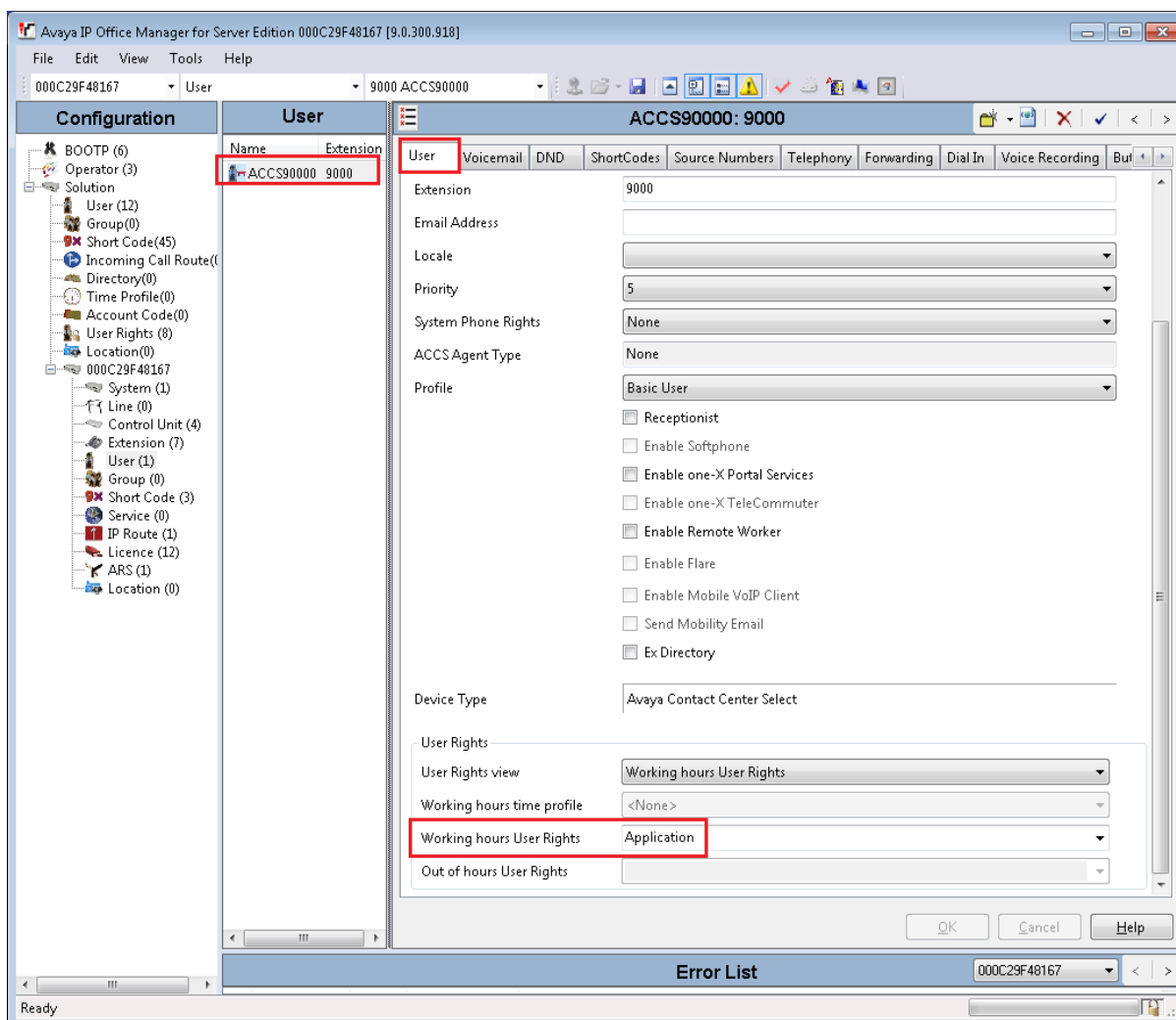


6. Click **OK**.
7. In the right **Application** pane, select the **Forwarding** tab.
8. Select **Enable Block Forward**.
9. From the list, select **Apply User Rights value**.

10. Click **OK**.

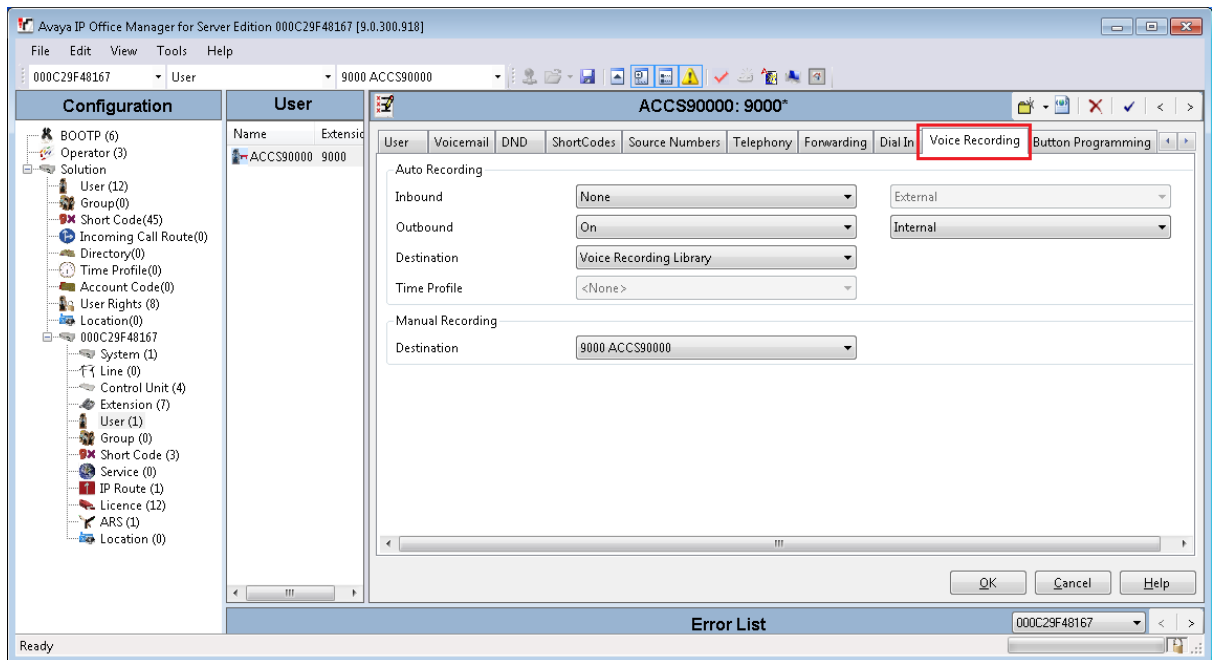


11. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
12. In the **Configuration** pane, under the IP Office server, select **User**.
13. In the middle pane, select the Avaya Contact Center Select SIP User Extension.
14. In the right pane, select the **User** tab.
15. From the **Working hours Users Rights** list, select **Application**.

16. Click **OK**.

17. On the Avaya Contact Center Select SIP User Extension user, select the **Voice Recording** tab.
18. From the **Inbound** list, select **None**.
19. From the **Outbound** list, select **On**, and **Internal**.

20. From the **Destination** list, select **Voice Recording Library**.



21. Click **OK**.

Configuring IP Office extensions

Before you begin

- Skip this procedure if your Avaya Contact Center Select agents are using IP Office Softphone with IP Office systems upgraded from IP Office Release 9.0.x.
- Skip this procedure if your Avaya Contact Center Select agents are using Avaya Communicator for Windows with IP Office Release 9.1.

About this task

For Avaya Contact Center Select agents using SIP and H.323 physical desk phones, configure an IP Office extension.

When you create an agent in Avaya Contact Center Select, data synchronization ensures that a corresponding user is created in IP Office. For Avaya Contact Center Select agents using SIP and H.323 physical desk phones, IP Office must have an extension for every IP Office user. You can reuse existing IP Office extensions for this purpose. Alternatively, you must create one new IP Office extension for each IP Office user that corresponds to an Avaya Contact Center Select agent. Avaya Contact Center Select agents can then use these IP Office users and extensions to log on and handle customer calls.

There are many different ways of providing a H.323 or SIP IP Office extension for each Avaya Contact Center Select agent, the following procedure describes one method. Some IP Office

Extension settings are not mergeable. Changes to these settings might require a reboot of the IP Office system.

! Important:

If your Avaya Contact Center Select agents are using IP Office Softphone with IP Office systems upgraded from IP Office Release 9.0.x, do not create an extension for the corresponding IP Office users. If your solution requires that *Users* have *Extensions*, select the *Force Login* option.

If your Avaya Contact Center Select agents are using Avaya Communicator for Windows with IP Office Release 9.1, do not create an extension for the corresponding IP Office users. If your solution requires that *Users* have *Extensions*, select the *Force Login* option.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the IP Office server, select **Extension**.
3. Right-click and select **New > H323 Extension** or select **New > SIP Extension**.
4. On the **Extn** tab, in the **Extension Id** box, type an extension number.
5. On the **Extn** tab, in the **Base Extension** box, type a base extension number. This is the directory number of the extension's default associated user.
6. In the **Phone Password** box, type a password.
7. Click **OK**.
8. Ensure the IP Office server has an extension, with a configured base extension number, for every IP Office user that corresponds to an Avaya Contact Center Select agent.

Saving the IP Office configuration data

Before you begin

- Install the IP Office Manager software on a client computer that can communicate with the IP Office server.

About this task

Use IP Office Manager to save your configuration changes to the IP Office server.

Procedure

1. In IP Office Manager, in the **Configuration** pane, select your IP Office server.
2. From the main IP Office Manager menu, select **File > Save Configuration**.
3. On the **Send Multiple Configurations** window, use the check box to select your IP Office server from the list.
4. Click **OK**.

IP Office Manager saves the offline configuration file to your IP Office server.

Part 2: Avaya Contact Center Select Software Appliance deployment

Deploy the Avaya Contact Center Select Software Appliance OVAs in the following order:

1. [Avaya WebLM OVA Deployment](#) on page 36
2. [Avaya Media Server OVA deployment](#) on page 53
3. [Avaya Contact Center Select OVA Deployment](#) on page 76

Chapter 6: Avaya WebLM OVA deployment

Deploy the Avaya WebLM OVA to provide solution licensing. You can deploy the Avaya WebLM OVA on the same VMware host server as the Contact Center OVA and the Avaya Media Server OVA. Alternatively, you can deploy the Avaya WebLM OVA standalone on a separate VMware host server.

For additional information about deploying the Avaya WebLM OVA, see *Avaya WebLM using VMware® in the Virtualized Environment Deployment Guide* available on the Avaya Support website at <http://support.avaya.com>.

After you have deployed WebLM, you can apply WebLM patches, feature packs, or service packs. For example, you can install a WebLM patch to upgrade WebLM from Release 6.3.2 to Release 6.3.8.

WebLM OVA

Contact Center supports the WebLM license manager server. For increased efficiency and flexibility, the WebLM license manager supports the VMware Virtual Appliance and Open Virtualization Archive (OVA) deployment mechanisms. In a virtualized Contact Center environment, you can use VMware to load the WebLM OVA package onto a separate virtual machine in your contact center solution. The virtualized Contact Center server can then use the virtualized WebLM server as the license manager.

The WebLM OVA contains a hardened Linux operating system.

The WebLM OVA requires the following:

vCPU	Minimum CPU speed	Virtual memory reservation	Number of NICs	Virtual disk storage reservation
1	—	1 GB	1 shared	30 GB

*** Note:**

Do not change any of these WebLM OVA VMware guest settings.

The WebLM OVA uses the following network mapping:

WebLM Server VM Interface	Application
Eth0	License management

The WebLM server for VMware is packaged as a vAppliance ready for deployment using either VMware vSphere Client or VMware vCenter.

Deploy the WebLM OVA using Disk Format - Thick Provision Lazy Zeroed. Avaya WebLM does not support thin provisioning in production environments.

WebLM OVA deployment procedures

About this task

This task flow shows you the sequence of procedures you perform to deploy the WebLM OVA.

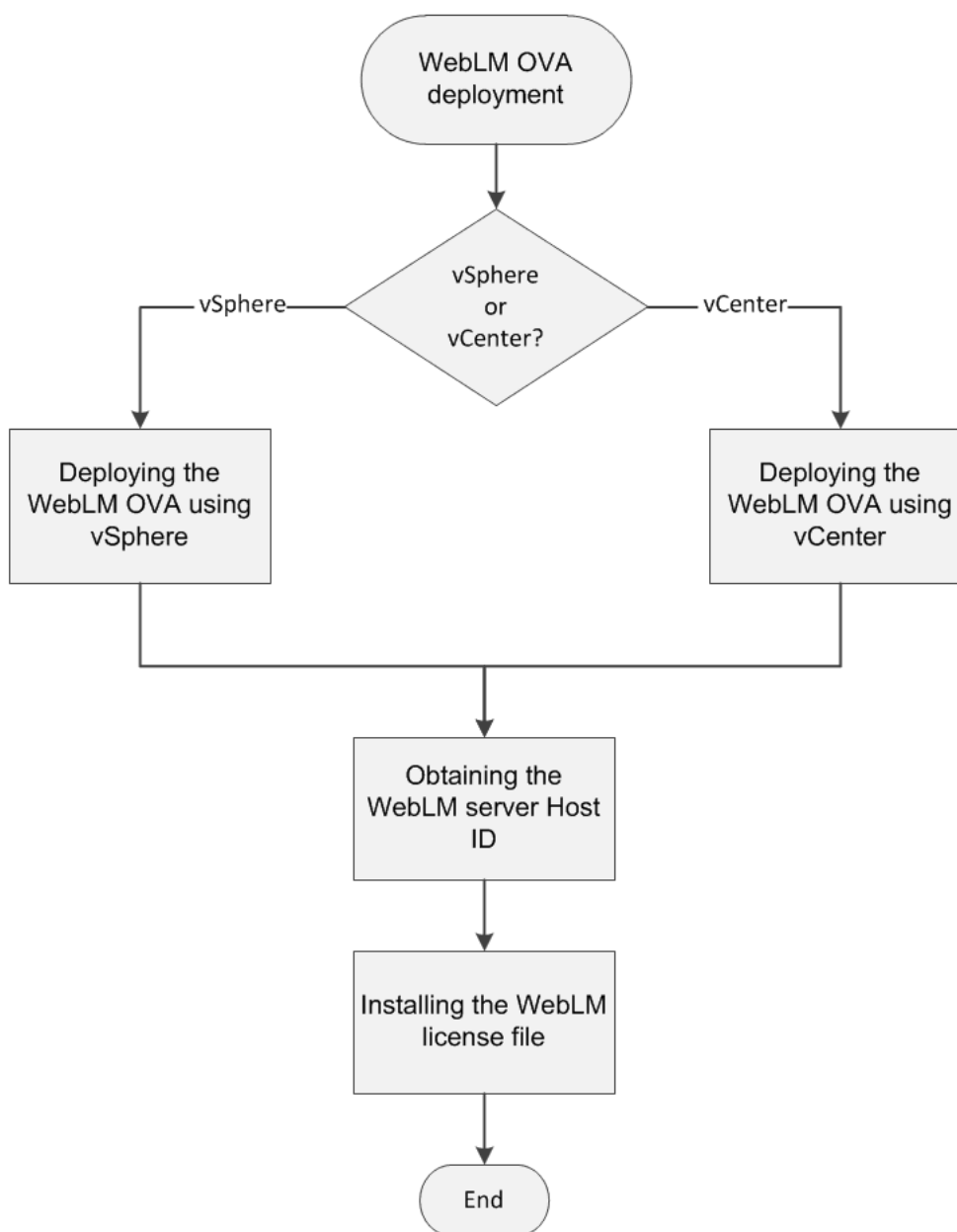


Figure 1: WebLM OVA deployment process

Deploying the WebLM OVA using vSphere

Before you begin

- Download the WebLM OVA file from the Avaya Product Licensing and Delivery System (PLDS) website at <https://plds.avaya.com/>.
- Know the IP address and network details of the WebLM server.

About this task

Deploy the WebLM OVA file onto a VMware ESXi host server. This creates a single instance of WebLM server for use in Contact Center solutions.

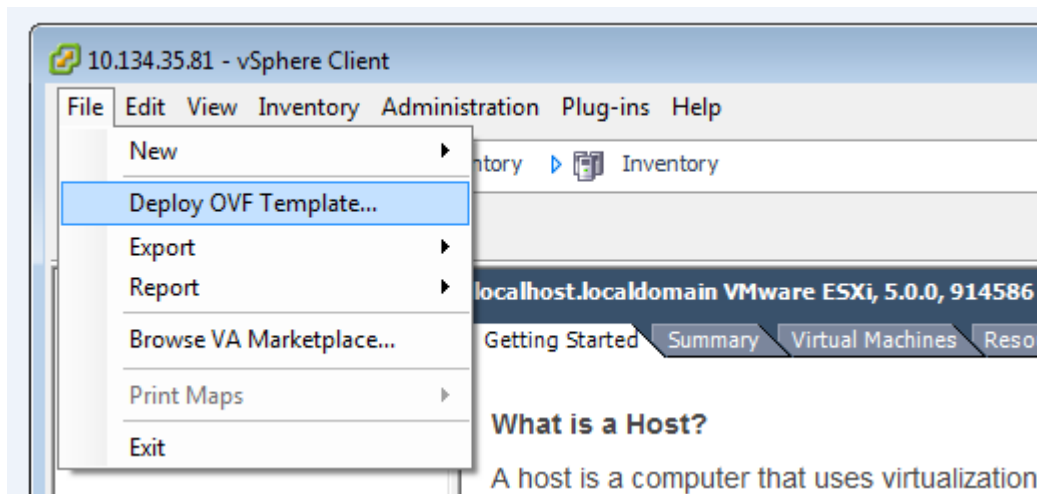
The WebLM OVA includes VMware tools. They are a suite of utilities that enhances the performance of the virtual machine's guest operating system and improves the management of the virtual machine.

Always deploy WebLM with a thick provisioned disk.

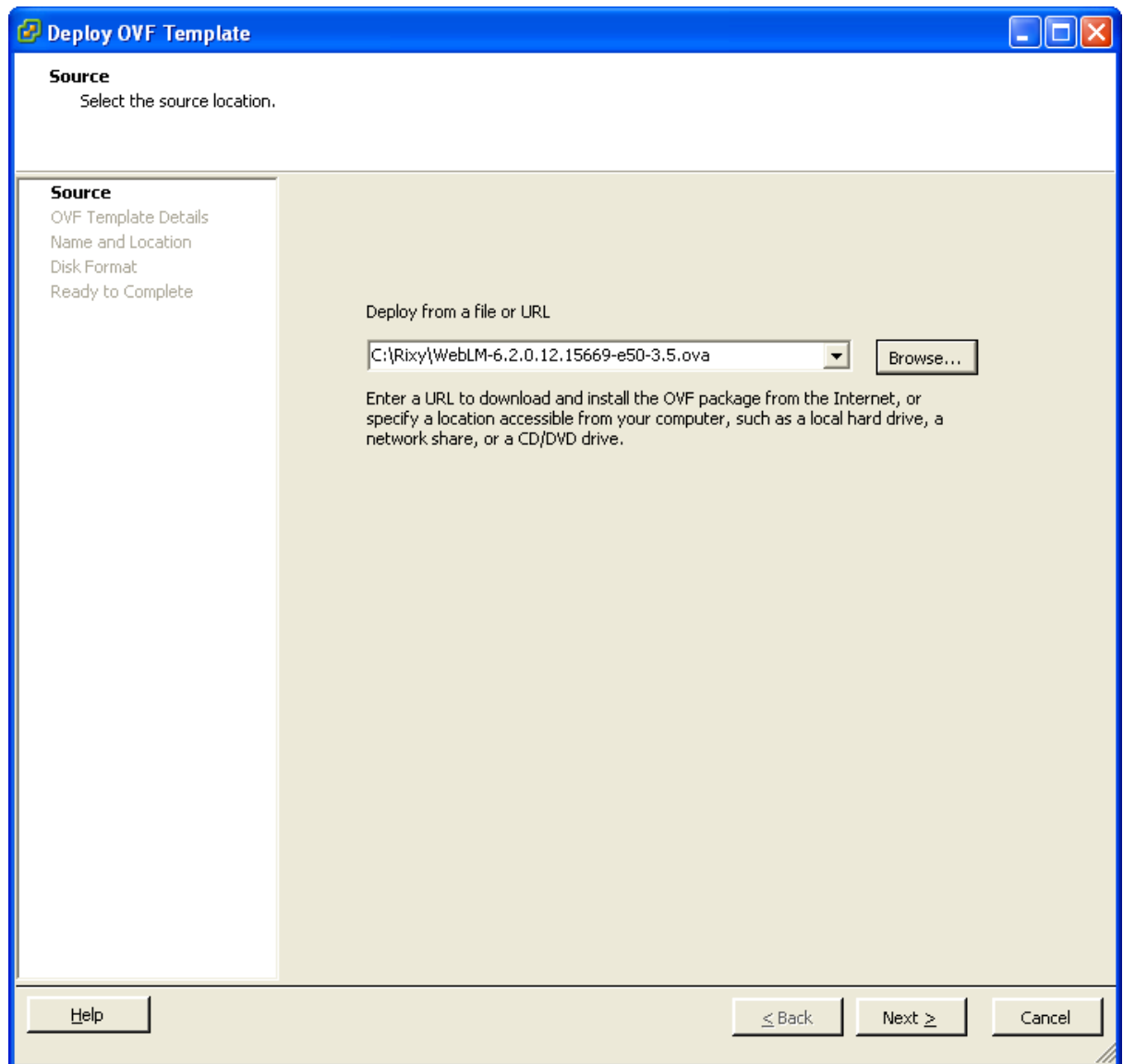
For best performance, use WebLM only on disks local to the ESXi Host, or SAN storage devices. Do not store WebLM on a NFS storage system.

Procedure

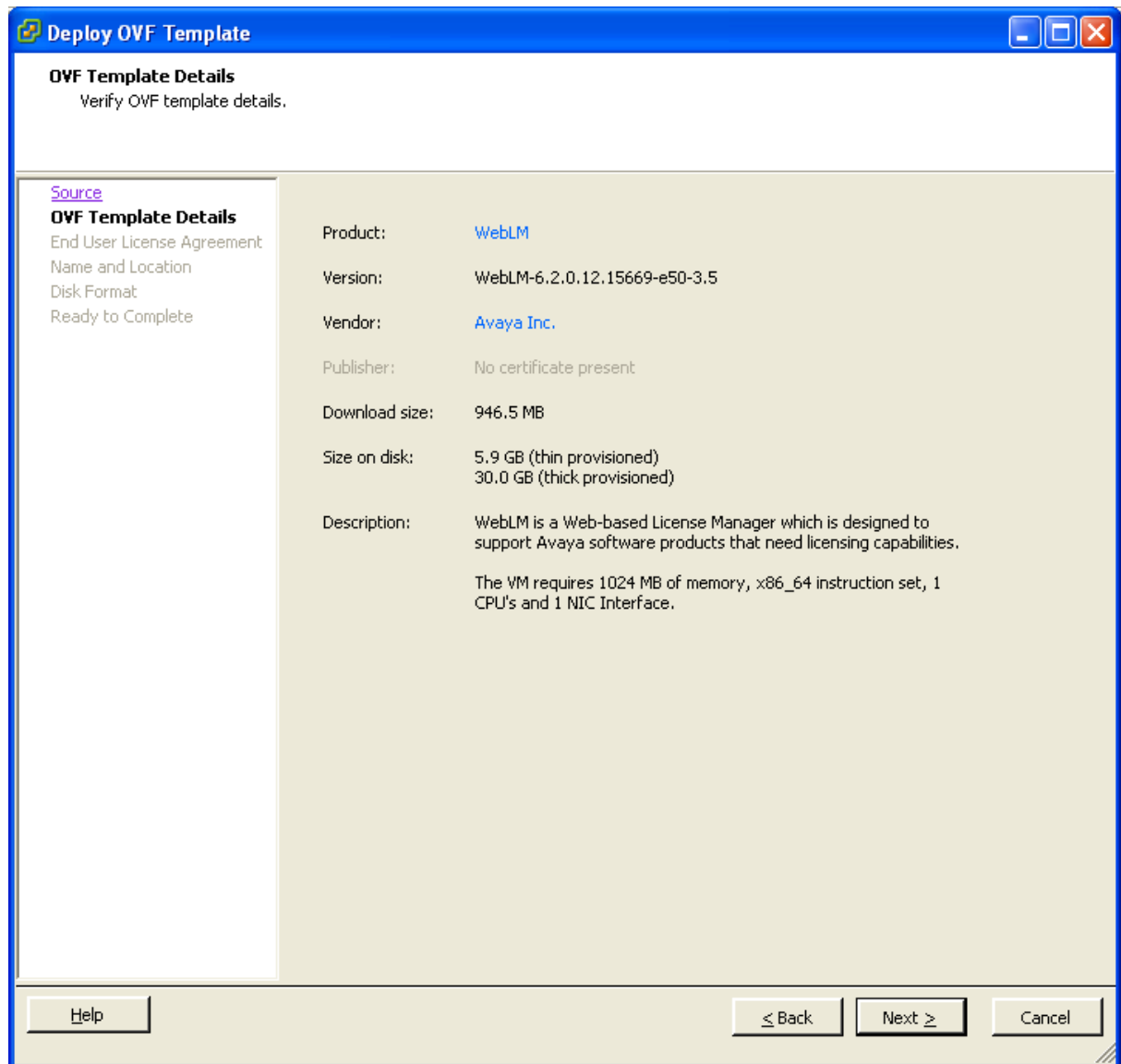
1. In your vSphere client, select the ESXi host server.
2. Select **File** > **Deploy OVF Template**.



3. On the **Source** window, click **Browse**.
4. On the **Open** message box, select the WebLM OVA file.
5. Click **Open**.



6. On the **Source** window, click **Next**.



7. On the **OVF Template Details** window, verify the details of the OVA template and click **Next**.
8. On the **End User License Agreement** window, read the license agreement, and if acceptable, click **Accept**.
9. Click **Next**.
10. On the **Name and Location** window, type the name of the new WebLM guest (virtual machine). This is not the host name of the WebLM server. This is the name of the VMware guest.

The image shows a 'Deploy OVF Template' window with a blue title bar. The main area is titled 'Name and Location' with the instruction 'Specify a name and location for the deployed template'. On the left, a sidebar contains links: 'Source', 'OVF Template Details', 'End User License Agreement', 'Name and Location' (which is selected), 'Disk Format', and 'Ready to Complete'. The main content area has a 'Name:' label and a text box containing 'WebLMServer1'. Below the text box, it says 'The name can contain up to 80 characters and it must be unique within the inventory folder.' At the bottom, there are three buttons: 'Help', '< Back', and 'Next >', and a 'Cancel' button on the far right.

Deploy OVF Template

Name and Location
Specify a name and location for the deployed template

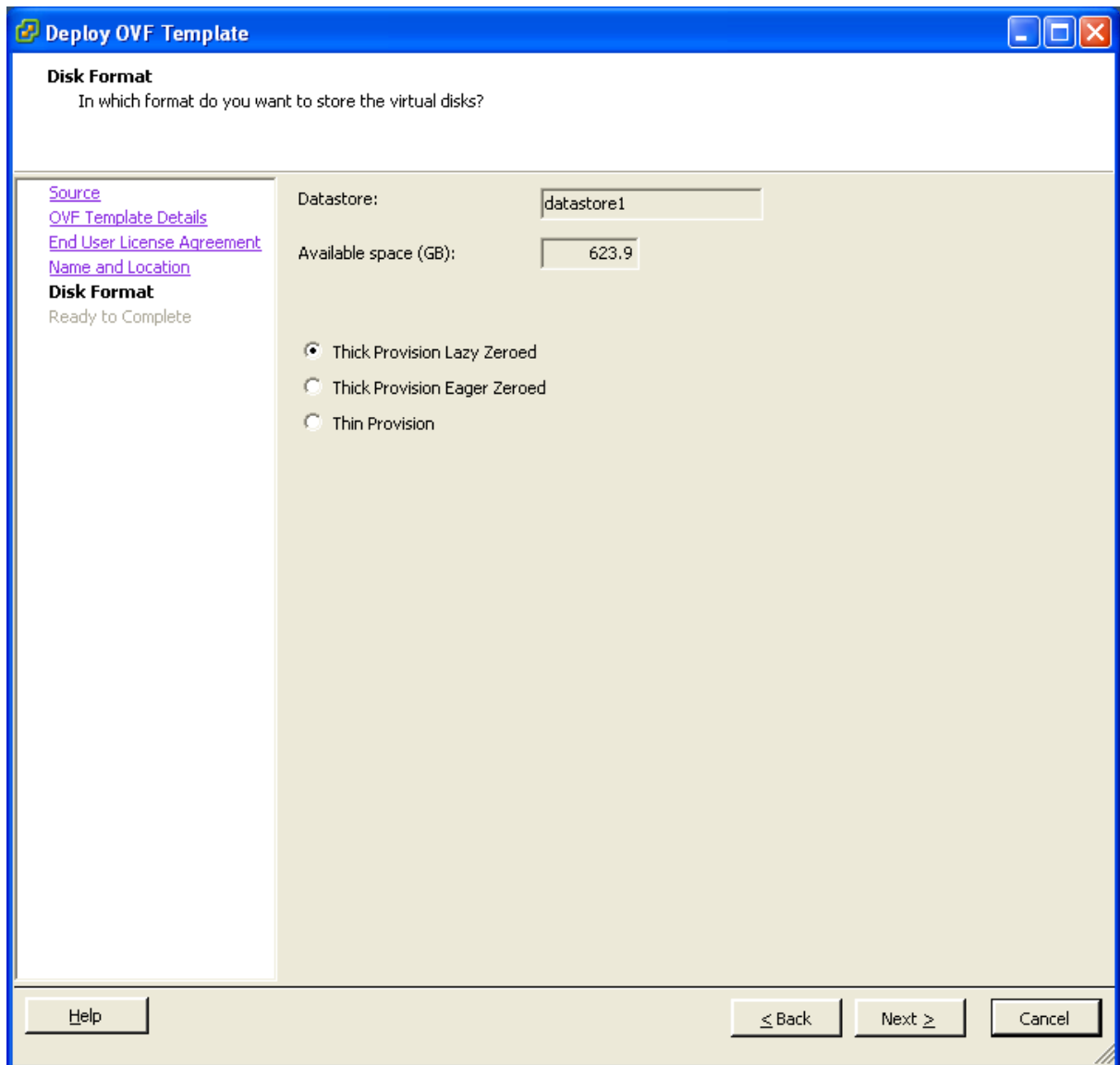
[Source](#)
[OVF Template Details](#)
[End User License Agreement](#)
Name and Location
[Disk Format](#)
[Ready to Complete](#)

Name:
WebLMServer1

The name can contain up to 80 characters and it must be unique within the inventory folder.

Help < Back Next > Cancel

11. Click **Next**.
12. On the **Disk Format** window, select **Thick Provision Lazy Zeroed**.



13. Click **Next**.
14. On the **Ready to Complete** window, verify the deployment settings. If you need to modify any of the settings, click **Back**.
15. Click **Power on after deployment**.
16. Click **Finish**.
The WebLM template begins to load.
17. On the **Deployment Completed Successfully** message box, click **Close**.
18. In the vSphere client, from the inventory list in the left pane, select the new WebLM guest.
19. With the deployed WebLM virtual machine still selected, right-click and select **Open Console**.

On the WebLM console screen, as the WebLM virtual machine boots, you are prompted to configure the network settings.

20. To configure the WebLM server network settings, enter `y` at the menu.
21. At the **IP Address** prompt, enter the IP address of the WebLM virtual machine. Use IPv4 formatting.
22. At the **Netmask** prompt, enter the subnet mask IP address. Use IPv4 formatting.
23. At the **hostname** prompt, enter the host name of the WebLM virtual machine.
24. At the **domain name** prompt, enter the name of the domain containing the WebLM virtual machine.
25. At the **default gateway** prompt, enter the Default Gateway IP address. Use IPv4 formatting.
26. At the **DNS server(s)** prompt, enter the DNS server IP address. Use IPv4 formatting.
27. At the **default Search List (optional)** prompt, enter a search list if you are using one.
28. At the **NTP Server IP or FQDN** prompt, enter the IP address or FQDN of your Network Time Protocol (NTP) server.
29. At the **Time Zone Detail** prompt, select the time zone continent or ocean for WebLM from the list.
30. At the **Please select a country** prompt, select the country for WebLM from the list.
31. Review the **Network Settings** and enter `y`.

The WebLM OVA deployment continues until the installation is complete.

32. With the WebLM virtual machine still selected, right-click and select **Open Console**.
WebLM provides a restricted shell to perform CLI based operations.

Deploying the WebLM OVA using vCenter

Before you begin

- Download the WebLM OVA file from the Avaya Product Licensing and Delivery System (PLDS) website at <https://plds.avaya.com/>.
- Know the IP address and network details of the WebLM server.

About this task

Deploy the WebLM OVA file onto a VMware ESXi host server. This creates a single instance of WebLM server for use in Contact Center solutions.

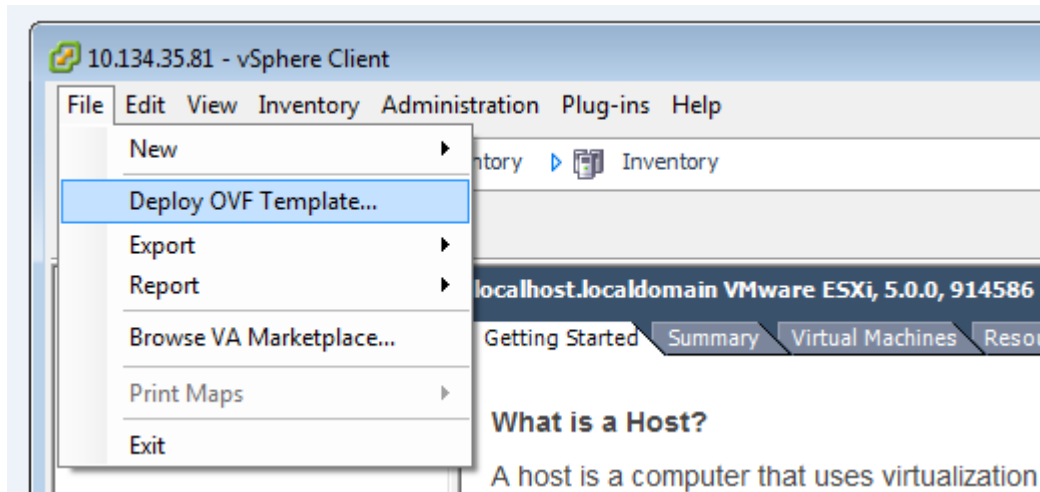
The WebLM OVA includes VMware tools. They are a suite of utilities that enhances the performance of the virtual machine's guest operating system and improves the management of the virtual machine.

Always deploy WebLM with a thick provisioned disk.

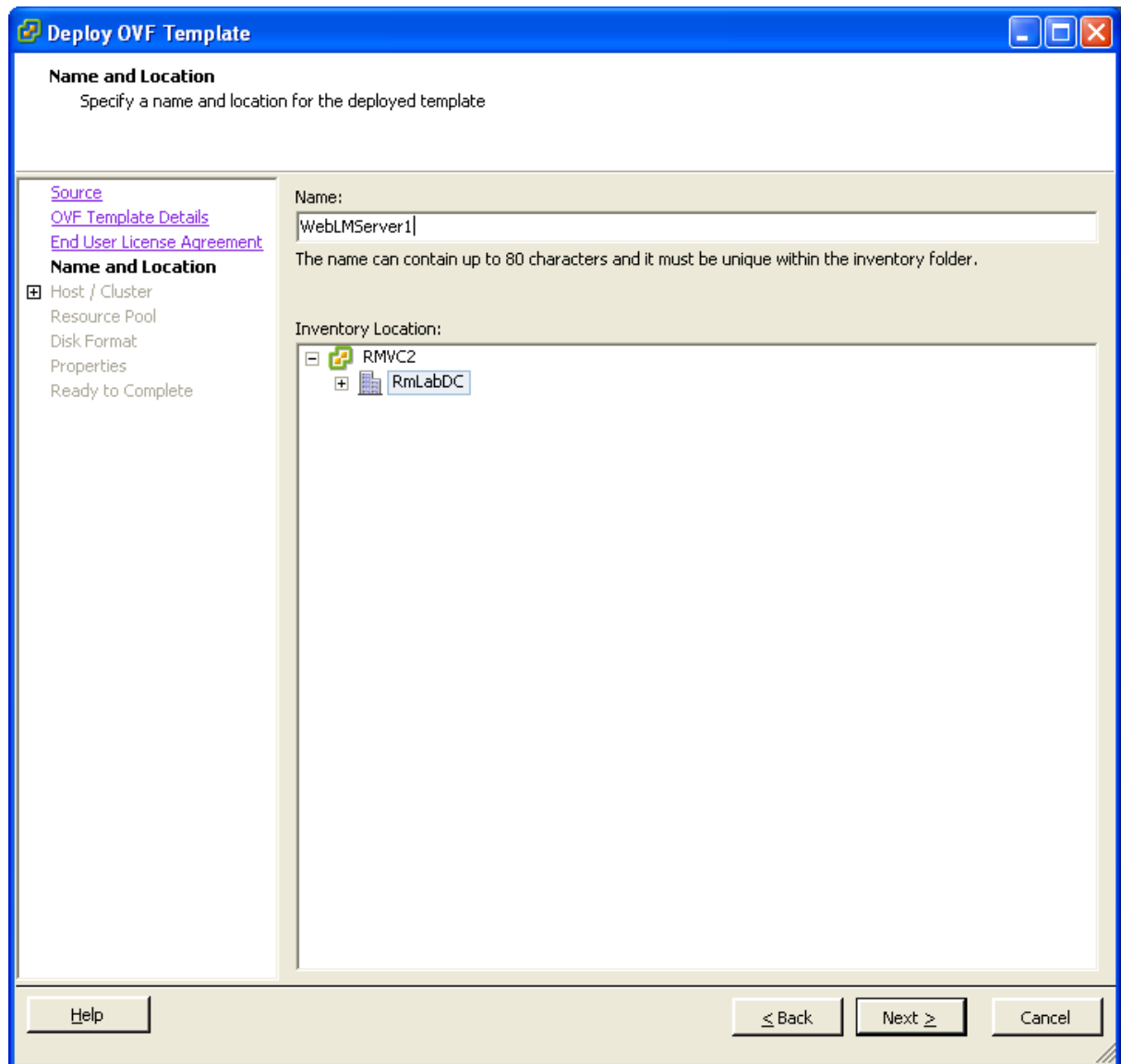
For best performance, use WebLM only on disks local to the ESXi Host, or SAN storage devices. Do not store WebLM on a NFS storage system.

Procedure

1. In your vSphere client, select **File > Deploy OVF Template**.



2. On the **Source** window, click **Browse**.
3. On the **Open** message box, select the WebLM OVA file.
4. Click **Open**.
5. On the **Source** window, click **Next**.
6. On the **OVF Template Details** window, verify the details of the OVA template and click **Next**.
7. On the **End User License Agreement** window, read the license agreement, and if acceptable, click **Accept**.
8. Click **Next**.
9. On the **Name and Location** window, in the **Name** box, type the name of the new WebLM guest (virtual machine). This is not the host name, this is the name of the VMware virtual machine.



10. Click **Next**.
11. On the Host and Cluster window, select the host server or cluster on which to deploy the WebLM OVA. If you selected a cluster, select a **Specific Host** on that cluster.
12. Click **Next** to display the **Storage** window.
13. From the **Select a destination storage for the virtual machine files** list, select a location to store the WebLM virtual machine image.
14. Click **Next**.
15. On the **Disk Format** window, select **Thick Provision Lazy Zeroed**. Thin provisioning is not supported in production environments.
16. Click **Next**.

Deploy OVF Template

Properties
Customize the software solution for this deployment.

Source
OVF Template Details
End User License Agreement
Name and Location
Host / Cluster
Storage
Disk Format
Network Mapping
Properties
Ready to Complete

Please enter the IP Address to assign to the VM:
[. . .]
Enter an IP address.

Please enter the Netmask to assign to the VM:
[255 , 255 , 255 , 0]

Please enter the IP Address of your default gateway:
[. . .]
Enter an IP address.

Please enter the IP Address of your DNS server:
[. . .]
Enter an IP address.

Please enter the Hostname [FQDN] to assign to the VM:
[]
A value must be provided.

Properties with invalid values will be left unassigned. The vApp will not be able to power on until all properties have valid values.

Help ≤ Back Next ≥ Cancel

17. On the **Network Mapping** window, configure a network interface for the WebLM virtual machine.
18. Click **Next**.
19. In the **Properties** window, in the **Please enter the IP Address to assign to the VM** box, type the IP address of the WebLM virtual machine. Use IPv4 formatting.
20. In the **Please enter the Netmask to assign to the VM** box, type the subnet mask IP address. Use IPv4 formatting.
21. In the **Please enter the IP Address of your default Gateway** box, type the Default Gateway IP address. Use IPv4 formatting.
22. In the **Please enter the IP Address of your DNS server** box, type the DNS server IP address. Use IPv4 formatting.

23. In the **Please enter the Hostname [FQDN] to assign to the VM** box, type the full host name fully qualified domain name (FQDN) of the WebLM server.
24. Click **Next**.
25. On the **Ready to Complete** window, verify the deployment settings. If you need to modify any of the settings, click **Back**.
26. Click **Power on after deployment**.
27. Click **Finish**.
The WebLM template begins to load.
28. On the **Deployment Completed Successfully** message box, click **Close**.

Obtaining the WebLM server Host ID

Before you begin

- Deploy the WebLM OVA on your VMware host server.

About this task

Obtain the WebLM server Host ID so you can use it to obtain or generate a license for use by Contact Center features.

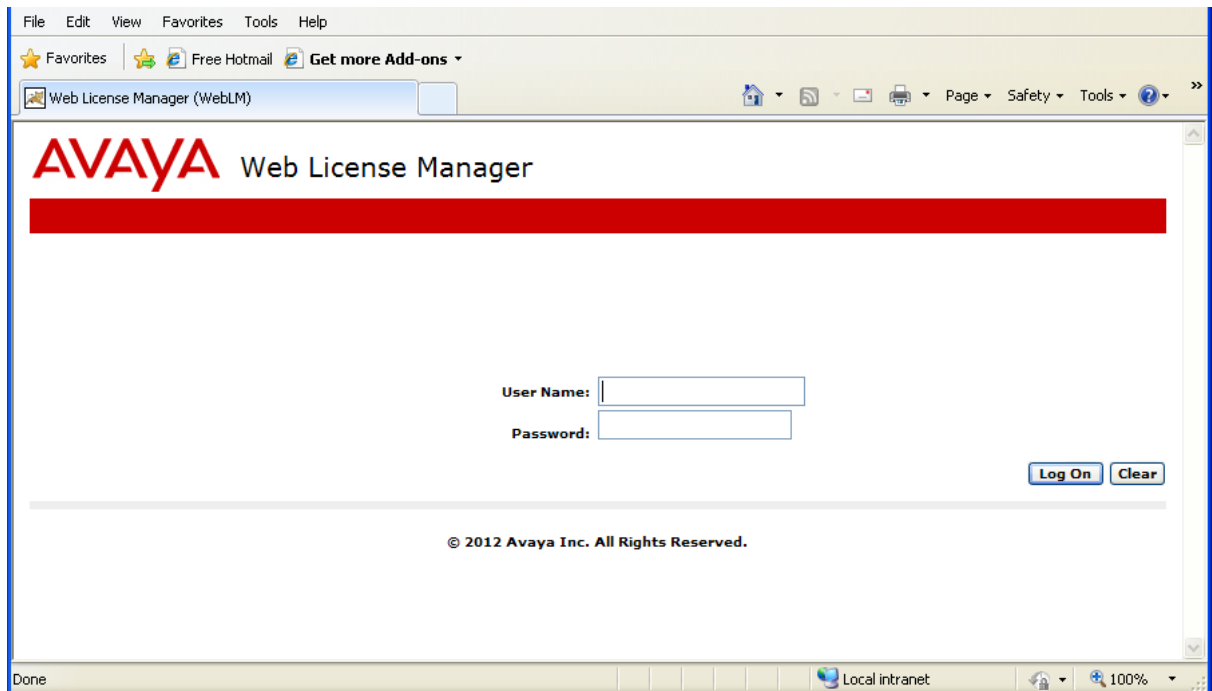
The first time you log on to the WebLM Web interface, you must change the default password.

Procedure

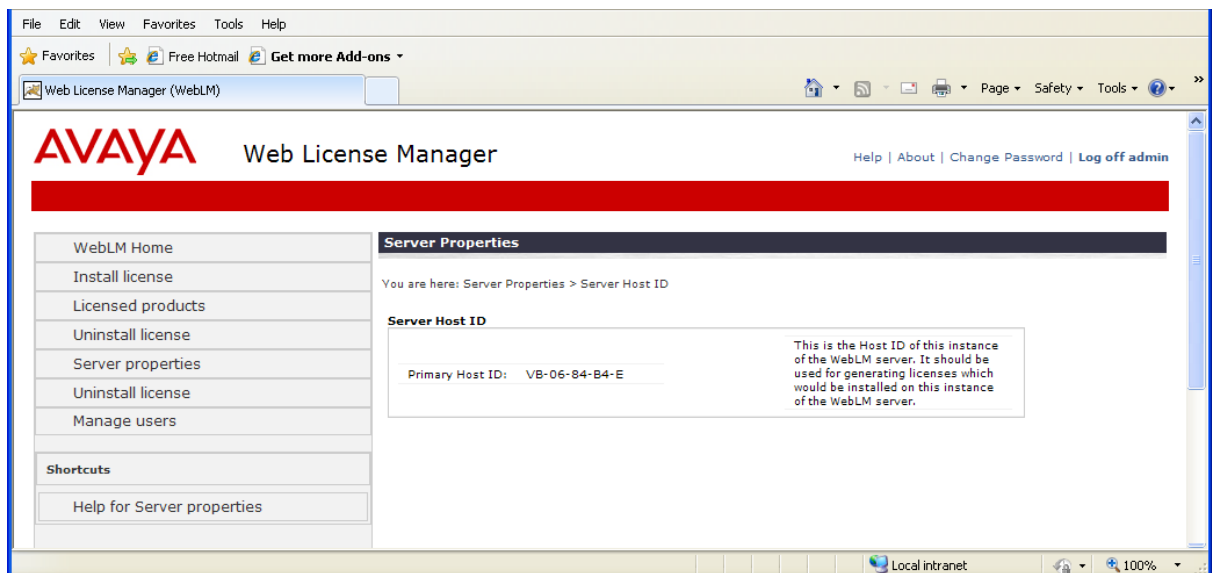
1. Open Internet Explorer and enter the following URL:

`https://<WebLMIPAddress>:52233/WebLM/index.jsp`

Where WebLMIPAddress is the IP address of the WebLM virtual machine.



2. Log on to the Web License Manager user interface using the default settings:
 The default **User Name** is admin.
 The default **Password** is weblmadmin.
3. Click **Log On**.
4. You are forced to change the password and log back on again using the new password.
5. On the left hand pane, select **Server properties**.



6. Record the Server Host ID **Primary Host ID** number.
7. Use the WebLM server Host ID to obtain Contact Center licenses from the Avaya Product Licensing and Delivery System (PLDS).

Installing the WebLM license file

Before you begin

- Use the WebLM server Host ID to obtain Contact Center licenses from the Avaya Product Licensing and Delivery System (PLDS).

About this task

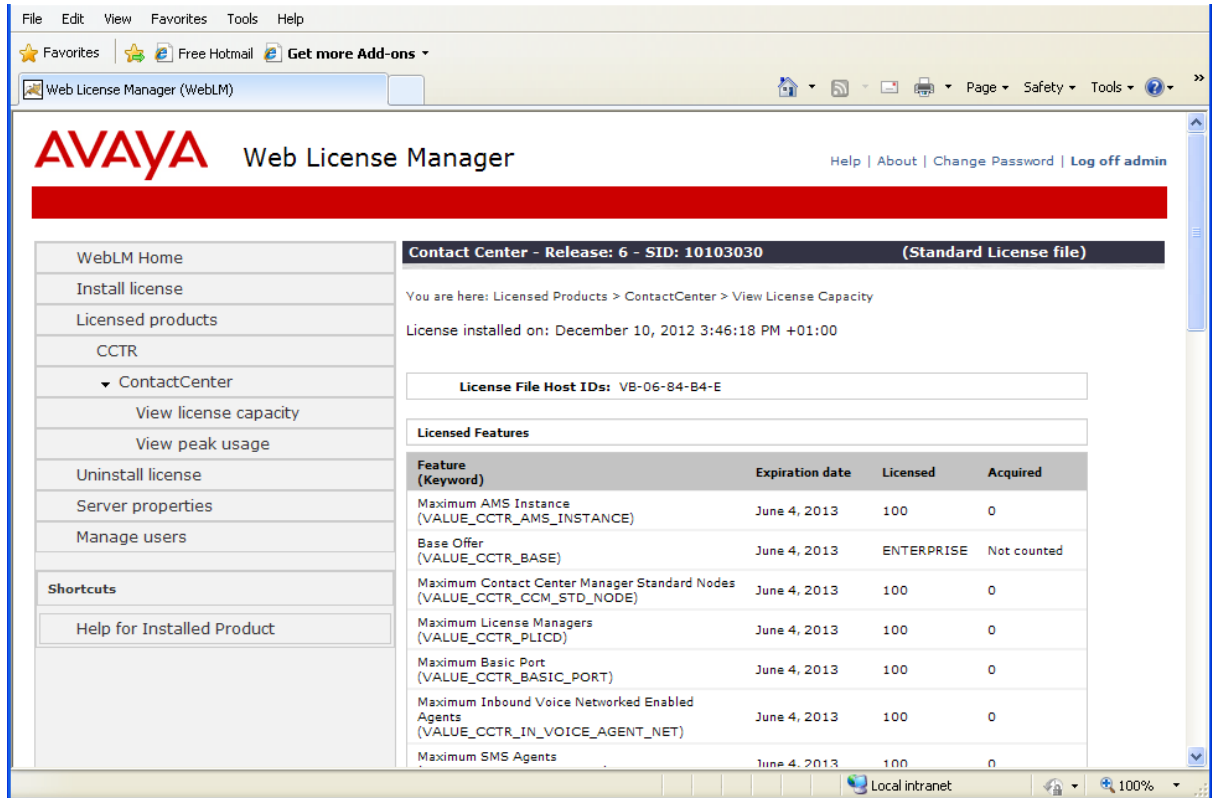
Install the WebLM license file to license Contact Center features and agents.

Procedure

1. Open Internet Explorer and enter the following URL:

https://<WebLMIPAddress>:52233/WebLM/index.jsp

Where WebLMIPAddress is the IP address of the WebLM virtual machine.
2. Log on to the Web License Manager user interface using the “admin” **User Name** and your new password.
3. Log on to the WebLM Web interface using your new password.
4. In the left hand pane, click **Install license**.
5. In the **Enter license path** box, enter the license file details. Alternatively, click **Browse** to load the license file.
6. Click **Install**.
7. You can review the Contact Center licensed details by clicking **Licensed products**, **CCTR**, **ContactCenter**.



WebLM licensing is now available for Contact Center.

Installing a WebLM patch, feature pack, or service pack

Before you begin

- Ensure that you have configured `/etc/hosts` with the WebLM IP address.
- Create a VMware snapshot backup for WebLM.
- Copy the patch file, feature pack file, or the service pack file to the WebLM virtual machine. Copy the file to the `/home/admin` folder. The default password for the root (su) user is "root01".
- Verify the MD5 checksum of the downloaded patch file.
- Go to the WebLM CLI by performing one of the following actions:
 - Open the vSphere client, and click the **Console** tab.
 - Start an SSH session on the WebLM server.

About this task

Install WebLM patches to resolve product issues or upgrade the installed software.

Before installing WebLM patches, you must first identify the installed WebLM software version. Run the `admin > swversion` command to identify the installed version.

The system displays the version details. For example,

```
***** StandAlone WebLM Software Information
***** Standalone WebLM on VMware 6.3.2.0 Build Number
6.3.2.4.6790 Patch 6.3.2.2 Build Number 6.3.4.1.21002
```

Procedure

1. Log in to the WebLM CLI as an administrator.
2. Perform a WebLM backup.
 - a. Enter `WebLMBackup <backup_location>` and provide the backup location as a parameter. The WebLM backup is stored at the location you specify as a parameter.
 - b. Copy the backup files to a remote computer or to an external storage device.

3. Grant executable permissions to the patch file. For example:

```
chmod +x WebLM_6.3.8_r4502368.bin
```

4. Install the patch by running the patch file. For example:

```
./WebLM_6.3.8_r4502368.bin
```

The patch file extracts and begins to run.

5. At the **Do you accept the Avaya Software License Terms?** prompt, read the license terms, and if the terms are acceptable, enter `Y`.

The installation continues and installs the updated software.

6. Restart the standalone WebLM virtual machine.
7. Perform a WebLM restore. Enter `WebLMRestore full <backup_location>` to restore all the WebLM files by picking up the backup file at the specified location.

Chapter 7: Avaya Media Server OVA deployment

Deploy the Avaya Media Server OVA to provide the conference services required by SIP-enabled Contact Center.

The Avaya Media Server OVA creates and configures a virtual machine (guest) containing Avaya Media Server software. The resulting virtual machine contains a Linux operating system, hard disk drive, third-party components, system configuration, firewall settings, and Avaya Media Server application software.

You can deploy the Avaya Media Server OVA on the same VMware host server as the Contact Center OVA and the Avaya WebLM OVA. Alternatively, you can deploy the Avaya Media Server OVA standalone on a separate VMware host server.

 Note:

Avaya Media Server Element Manager displays licensing-related Critical Alarms until the Contact Center software is installed, configured, and licensed. The Contact Center software then pushes license keys to Avaya Media Server, clearing the licensing-related Critical Alarms.

Avaya Media Server OVA

The Avaya Media Server OVA contains information about the guest server specification, guest operating system, and application software. This OVA contains the following components:

- Red Hat Enterprise Linux 6.6, 64-bit
- Avaya Media Server 7.6 software
- Contact Center Services for Avaya Media Server Release 6.4
- IP tables firewall file application
- VMware Tools. Do not update the VMware Tools software on this virtual machine unless instructed to do so by Avaya.

The Avaya Media Server OVA is not supported in High Availability solutions. Virtualized Avaya Media Server does not support High Availability.

Avaya Media Server is a software based media processing platform. Contact Center includes 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 services required by SIP-enabled Contact Center.

The Avaya Media Server OVA package has the following default hardware configuration:

vCPU	Minimum CPU speed	Virtual memory required	Number of NICs	Virtual disk storage required	
8	—	12GB	1	Size	80 GB
				Deploy the Avaya Media Server OVA using Thick Provision Lazy Zeroed. Avaya Media Server does not support thin provisioning.	

*** Note:**

Do not change any of these Avaya Media Server OVA VMware guest settings.

In a virtualized Contact Center environment, you can use VMware to load the Avaya Media Server OVA package into a virtual machine (guest) in your contact center solution. The virtualized Contact Center server can then use the virtualized Avaya Media Server as a voice media processor.

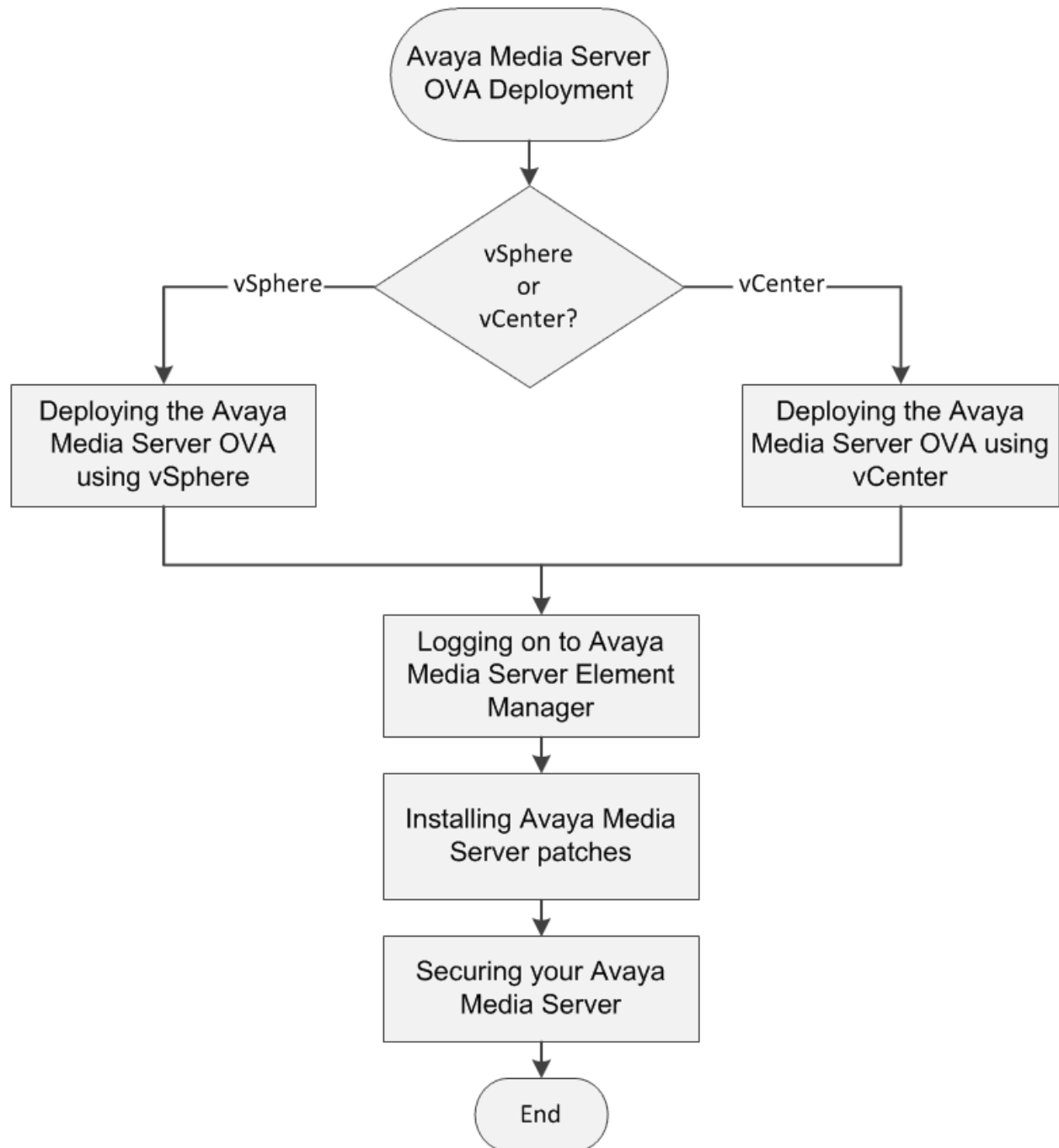
The Avaya Media Server OVA creates two Linux accounts: root and amsuser (for Element Manager). You must use VMware console to log on to the Avaya Media Server guest as the root administrator and set an initial password, before you can gain access to the system either locally, using SSH, or using Element Manager.

Deploy the Avaya Media Server OVA using Disk Format - Thick Provision Lazy Zeroed. Avaya Media Server does not support thin provisioning.

Avaya Media Server OVA deployment procedures

About this task

This task flow shows you the sequence of procedures you perform to deploy the Avaya Media Server OVA.



Deploying the Avaya Media Server OVA using vSphere

Before you begin

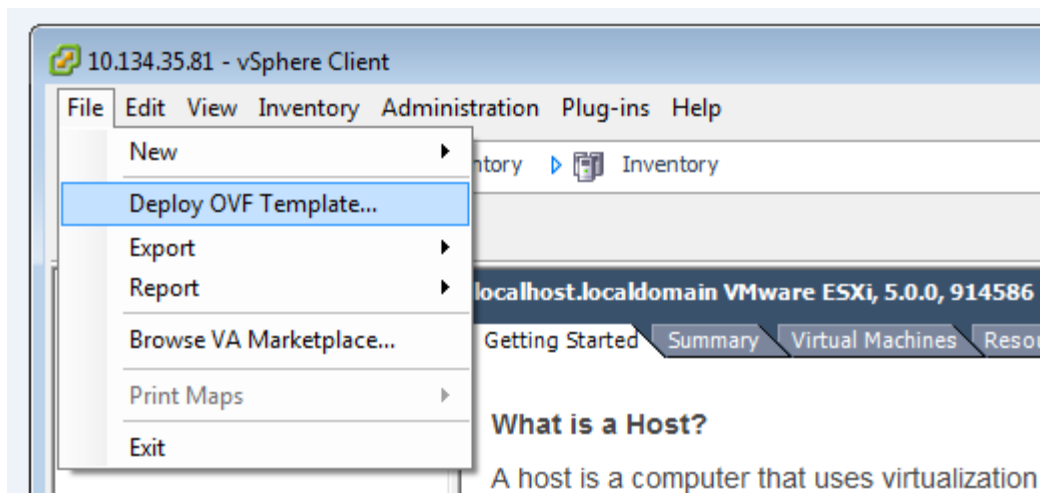
- Download the Avaya Media Server OVA file from the Avaya Product Licensing and Delivery System (PLDS) website at <https://plds.avaya.com/>.
- Know the IP address of the Avaya Contact Center Select server.
- Know the IP address of the IP Office server.
- Know the SIP domain name used by the IP Office server.

About this task

Deploy the Avaya Media Server OVA file onto an VMware ESXi host server. This creates a virtual machine with Avaya Media Server software for use in Avaya Contact Center Select solutions.

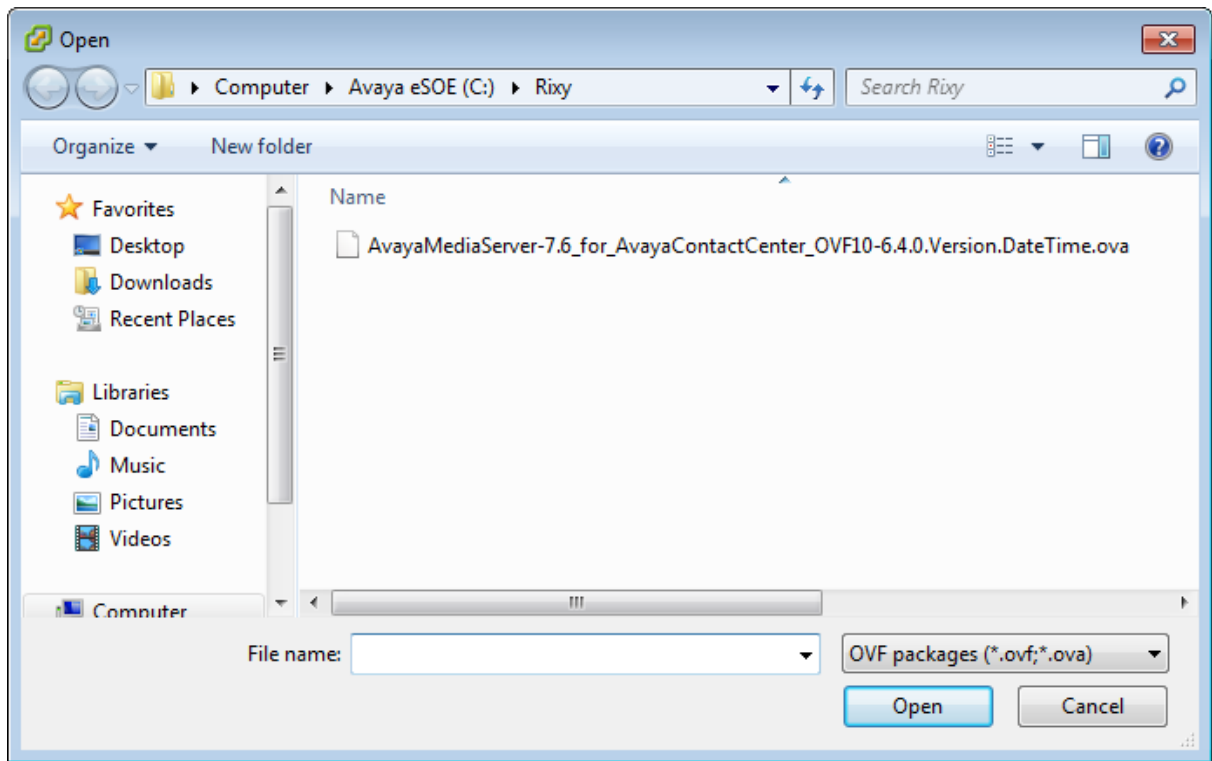
Procedure

1. In your vSphere client, select the ESXi host server.
2. Select **File > Deploy OVF Template**.



3. On the **Deploy OVF Template** window, Click **Browse**.

4. On the **Open** message box, select Avaya Media Server OVA file.



5. Click **Open**.
6. On the **Deploy OVF Template** window, click **Next**.
7. On the **OVF Template Details** window, verify the details of the OVA template and click **Next**.
8. Read the **End User License Agreement** and click **Accept**.
9. Click **Next**.

10. On the **Name and Location** window, type the name of the new Avaya Media Server guest (virtual machine).

The screenshot shows a window titled "Deploy OVF Template" with standard Windows window controls (minimize, maximize, close). The window is divided into two main sections. On the left is a vertical sidebar with a list of steps: "Source", "OVF Template Details", "End User License Agreement", "Name and Location" (which is highlighted in bold), "Disk Format", and "Ready to Complete". The main area on the right is titled "Name and Location" with the instruction "Specify a name and location for the deployed template". It contains a text input field labeled "Name:" with the text "AvayaMediaServer1" entered. Below the input field is a note: "The name can contain up to 80 characters and it must be unique within the inventory folder." At the bottom of the window, there are three buttons: "Help", "< Back", and "Next >", and a "Cancel" button on the far right.

11. Click **Next**.

12. On the **Disk Format** window, select **Thick Provision Lazy Zeroed**.

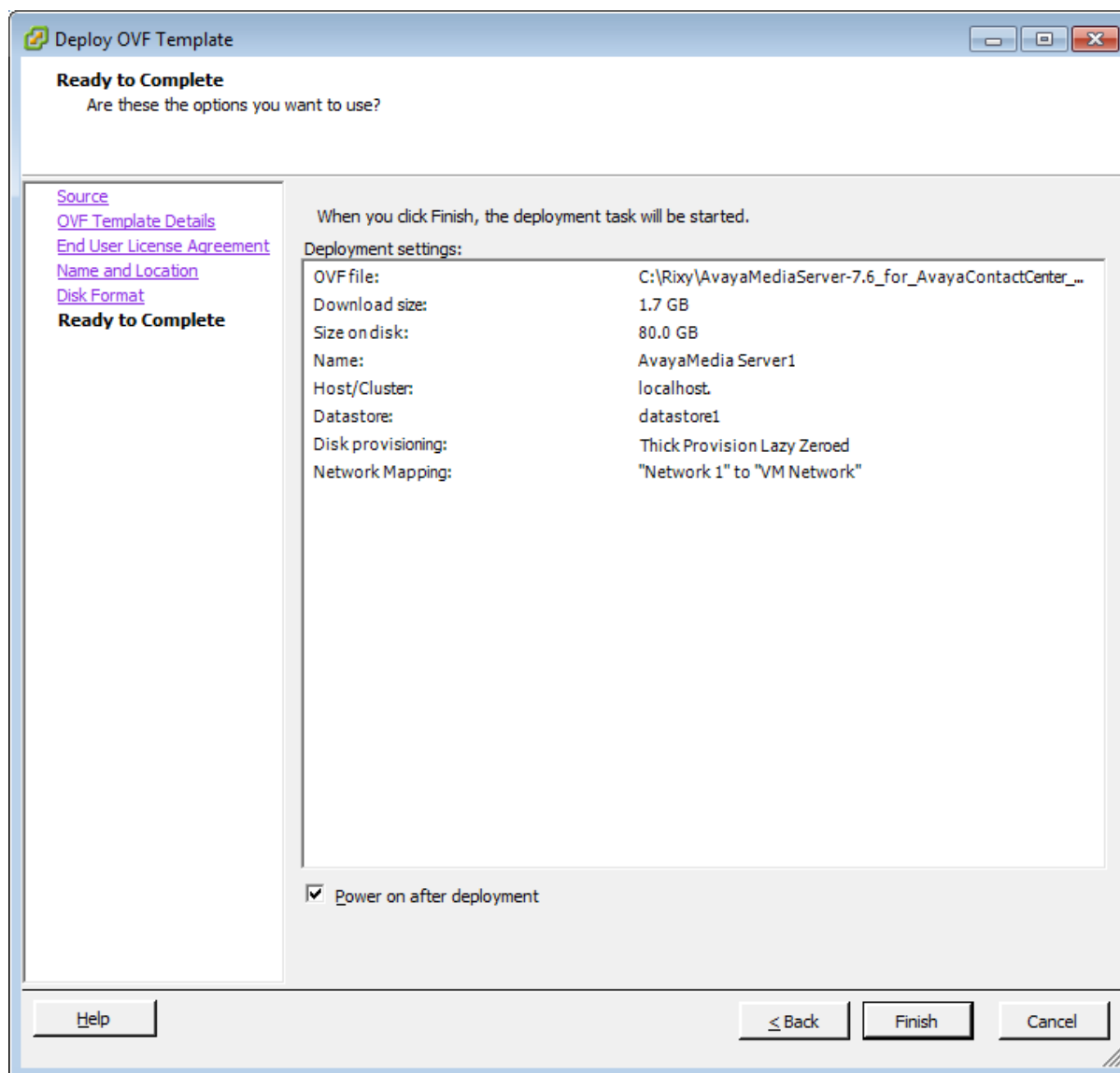
The screenshot shows the 'Deploy OVF Template' window with the 'Disk Format' tab selected. The window title is 'Deploy OVF Template'. Below the title bar, the text 'Disk Format' is displayed, followed by the question 'In which format do you want to store the virtual disks?'. On the left side, there is a navigation pane with links: 'Source', 'OVF Template Details', 'End User License Agreement', 'Name and Location', 'Disk Format' (which is highlighted), and 'Ready to Complete'. The main area of the window contains the following fields and options:

- Datastore:** A text box containing 'datastore1'.
- Available space (GB):** A text box containing '541.5'.
- Provisioning Method:** Three radio buttons are present:
 - ☒ Thick Provision Lazy Zeroed
 - ☐ Thick Provision Eager Zeroed
 - ☐ Thin Provision

At the bottom of the window, there are three buttons: 'Help', '< Back', and 'Next >', and a 'Cancel' button on the far right.

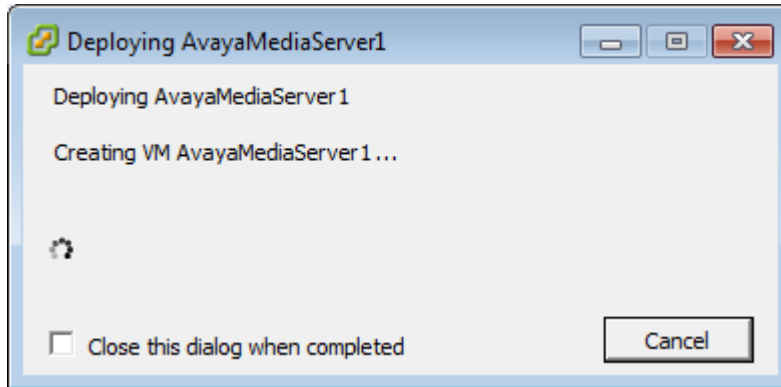
13. Click **Next**.
14. On the **Ready to Complete** window, verify the deployment settings. If you need to modify any of the settings, click **Back**.

15. Click **Power on after deployment**.

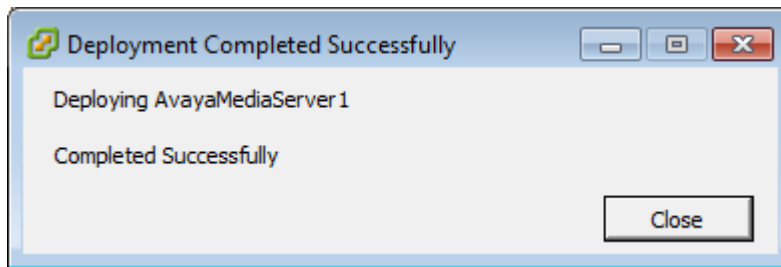


16. Click **Finish**.

The Avaya Media Server template begins to load:

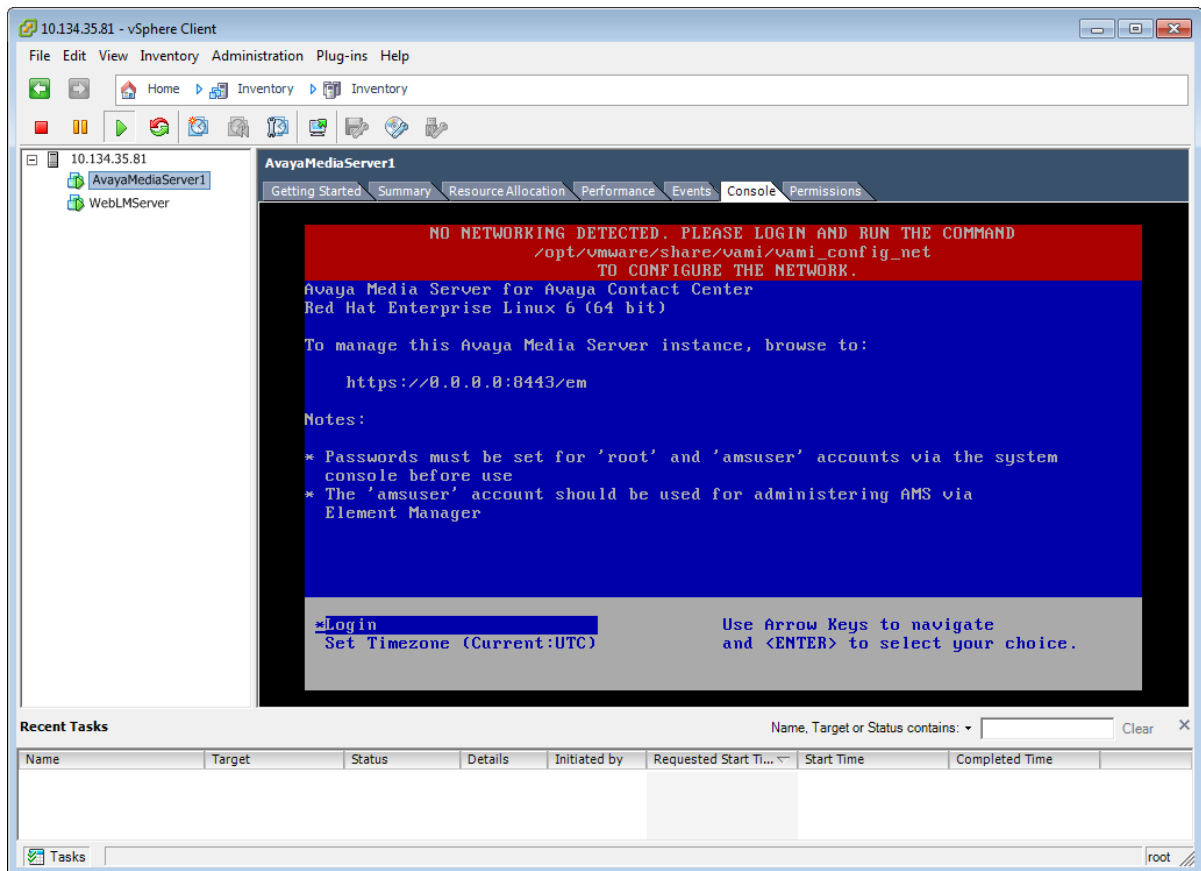


17. On the **Deployment Completed Successfully** message box, click **Close**.



18. In the vSphere client, from the inventory list in the left pane, select the new Avaya Media Server virtual machine.
19. In the right pane, select the **Console** tab for the new Avaya Media Server virtual machine.

20. On the Avaya Media Server guest console, in the virtual appliance welcome screen, use the keyboard arrow keys to select the **Login** option and press **Enter**.



21. At the **login** prompt, enter `root`.
22. At the **New password** prompt, enter a password for the root account.
23. At the **Retype new password** prompt, reenter the password for the root account.

The Avaya Media Server OVA template is now deployed and the root account password is configured.

The Contact Center Server for Avaya Media Server - Configuration Wizard begins.

24. At the **Hostname or FQDN** prompt, enter the server host name for the Avaya Media Server server. If you enter a FQDN, the Configuration Wizard uses the domain portion of the FQDN as the domain name. For example, if you enter `AvayaMS1.MyDomain.com`, the Configuration Wizard uses `MyDomain.com` as the local domain name.
25. At the **IPv4 Address** prompt, enter the IP address of the server.
26. At the **Network Mask** prompt, enter the Network Mask IP address.
27. At the **Default Gateway IP address** prompt, enter the default gateway IP address.

```

AvayaMedia Server1
Getting Started Summary Resource Allocation Performance Events Console Permissions

BAD PASSWORD: it is too simplistic/systematic
New password:
Retype new password:

=====
Contact Center Services for AMS - Configuration Wizard
=====

Welcome to your new server!

This wizard interface will help you perform basic configuration steps
needed to quickly get your system ready to handle Avaya Contact Center calls.

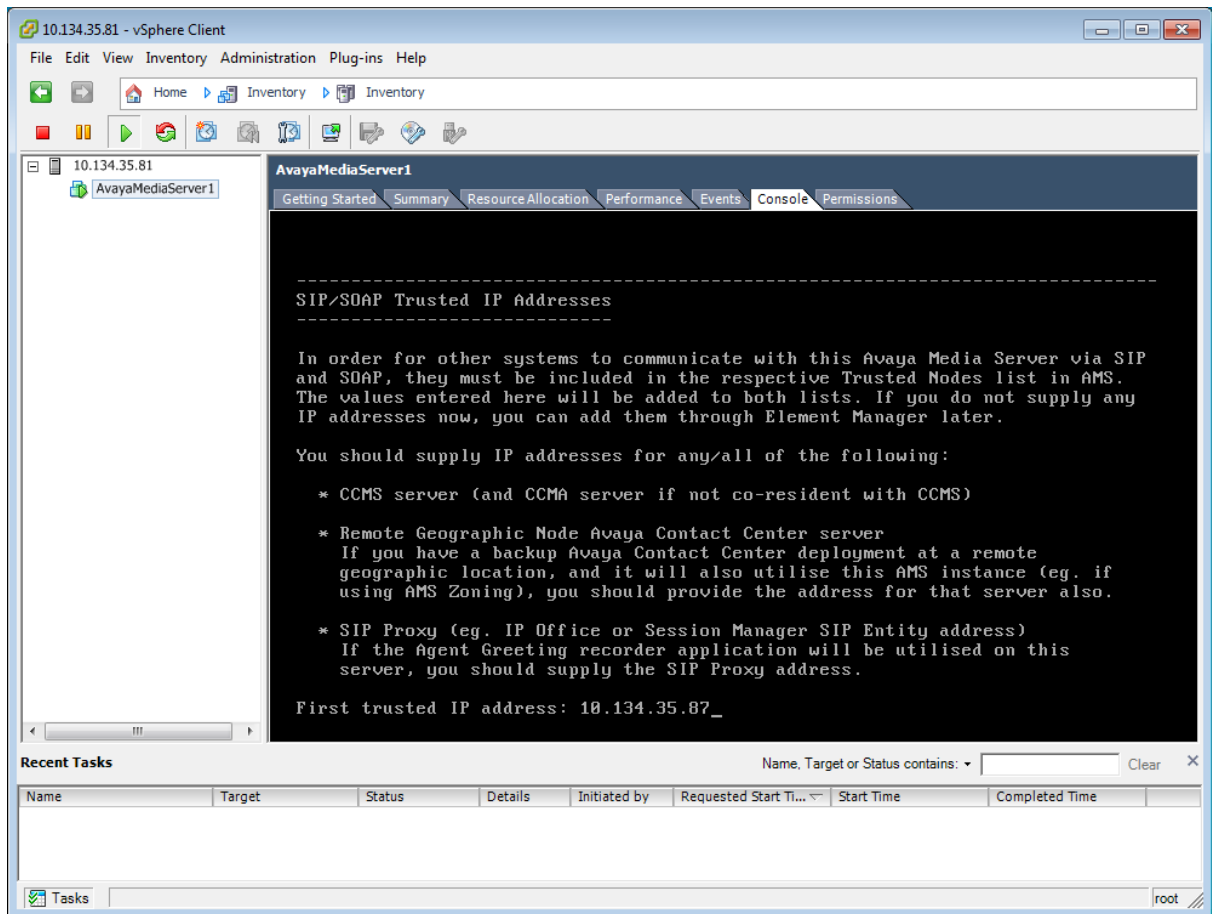
-----

Basic network configuration
-----

Hostname or FQDN: AvayaMS1.MyDomain.com
IPv4 Address: 10.134.35.144
Network Mask: 255.255.255.0
Default Gateway IP address: 10.134.35.254
Primary DNS server IP address (Optional): _

```

28. At the **Primary DNS server IP address (Optional)** prompt, enter the IP address of your primary DNS server.
29. At the **Additional DNS server IP address (Optional)** prompt, enter the IP address of another DNS server, if you have one.
30. At the **Network Configuration Summary** menu, to apply the changes, enter 1.
31. At the **Primary server** prompt, enter y.
32. At the **Upgrading** prompt, enter n.
33. At the **First trusted IP address** prompt, enter the IP address of the Avaya Contact Center Select server.



34. At the **Next trusted IP address (Optional)** prompt, enter the IP address of the IP Office server. If at this stage of the deployment you do not know all of your trusted nodes, you can add trusted node IP addresses later using Avaya Media Server Element Manager.
35. The Configuration Wizard continues to prompt for another trusted IP Address until you enter none, and just press `Enter`.
36. At the **SIP Domain Name (Optional)** prompt, enter the SIP domain name. If you enter a SIP Domain Name, Avaya Media Server automatically creates a content namespace with that name. If you do not provide a SIP Domain Name here, no sample media content is provisioned on this Avaya Media Server instance.
37. At the **Default Locale** prompt, select a locale for your solution. The default is `en_us`. For example, enter `1` to select `en_us`.
38. At the **NTP Server address (Optional)** prompt, enter the IP address of your Network Time Protocol (NTP) server. If you do not know it, you can add a NTP server later by editing the `ntp.conf` file. Avaya Media Server must be synchronized in time with the Avaya Contact Center Select server.
39. At the **Disable root SSH access on completion of installation** prompt, for improved security, enter `y`.

40. At the **Configuration Summary** menu, to continue, enter 1.
41. In the **AMS User Account** section, at the **New password** prompt, enter a password for the Avaya Media Server “amsuser” administration account. You use this “amsuser” administration account to log on to Avaya Media Server Element Manager.
42. At the **Retype new password** prompt, re-enter the “amsuser” password.
43. At the **Configuration is now complete. Your system needs to reboot to complete setup** prompt, press `Enter`.
The Avaya Media Server virtual machine reboots.
44. You must complete the remaining tasks in this chapter to configure the Linux server and finish preparing the Avaya Media Server virtual machine.

Deploying the Avaya Media Server OVA using vCenter

Before you begin

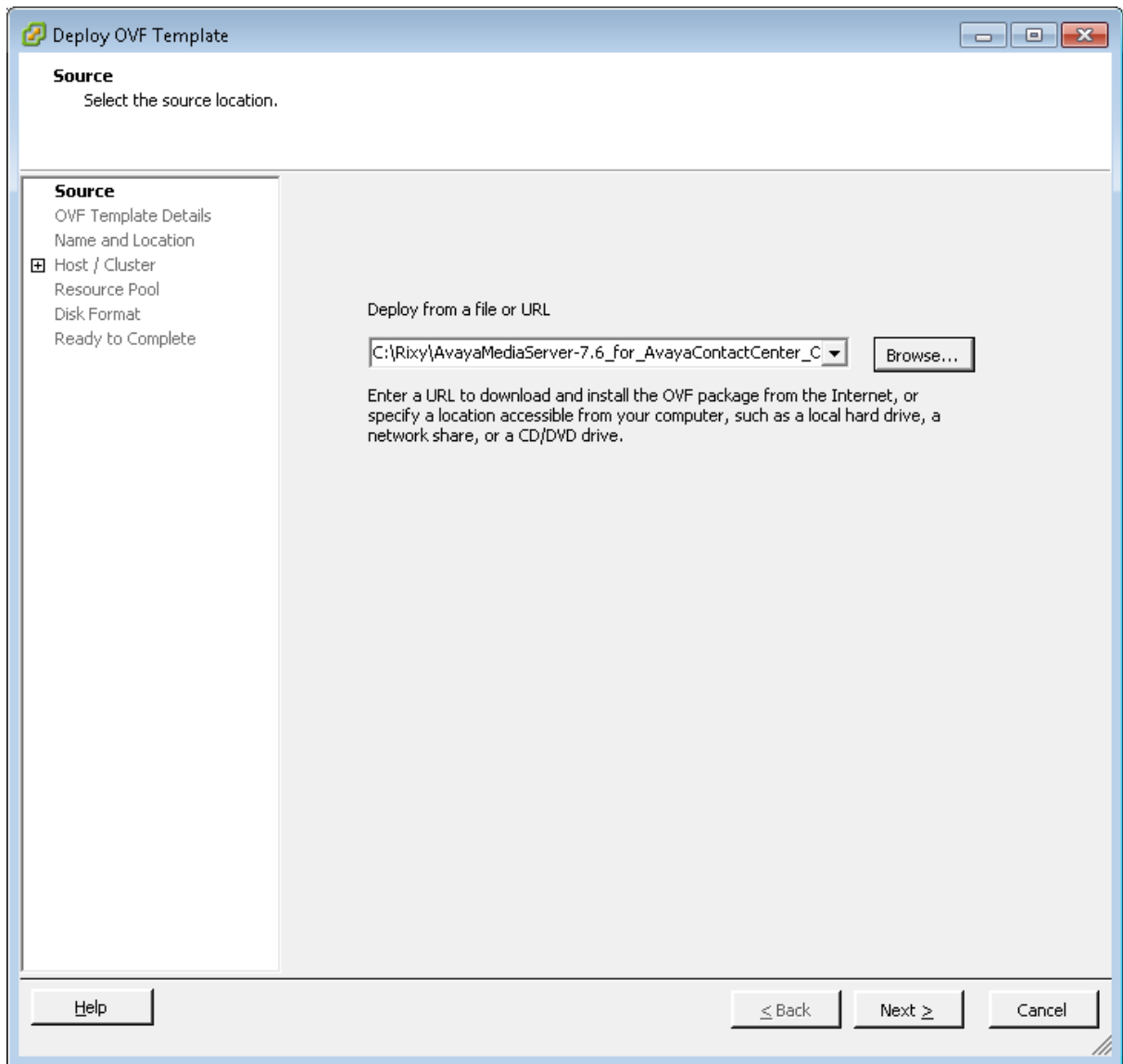
- Download the Avaya Media Server OVA file from the Avaya Product Licensing and Delivery System (PLDS) website at <https://plds.avaya.com/>.
- Know the IP address of the Avaya Contact Center Select server.
- Know the IP address of the IP Office server.
- Know the SIP domain name used by the IP Office server.

About this task

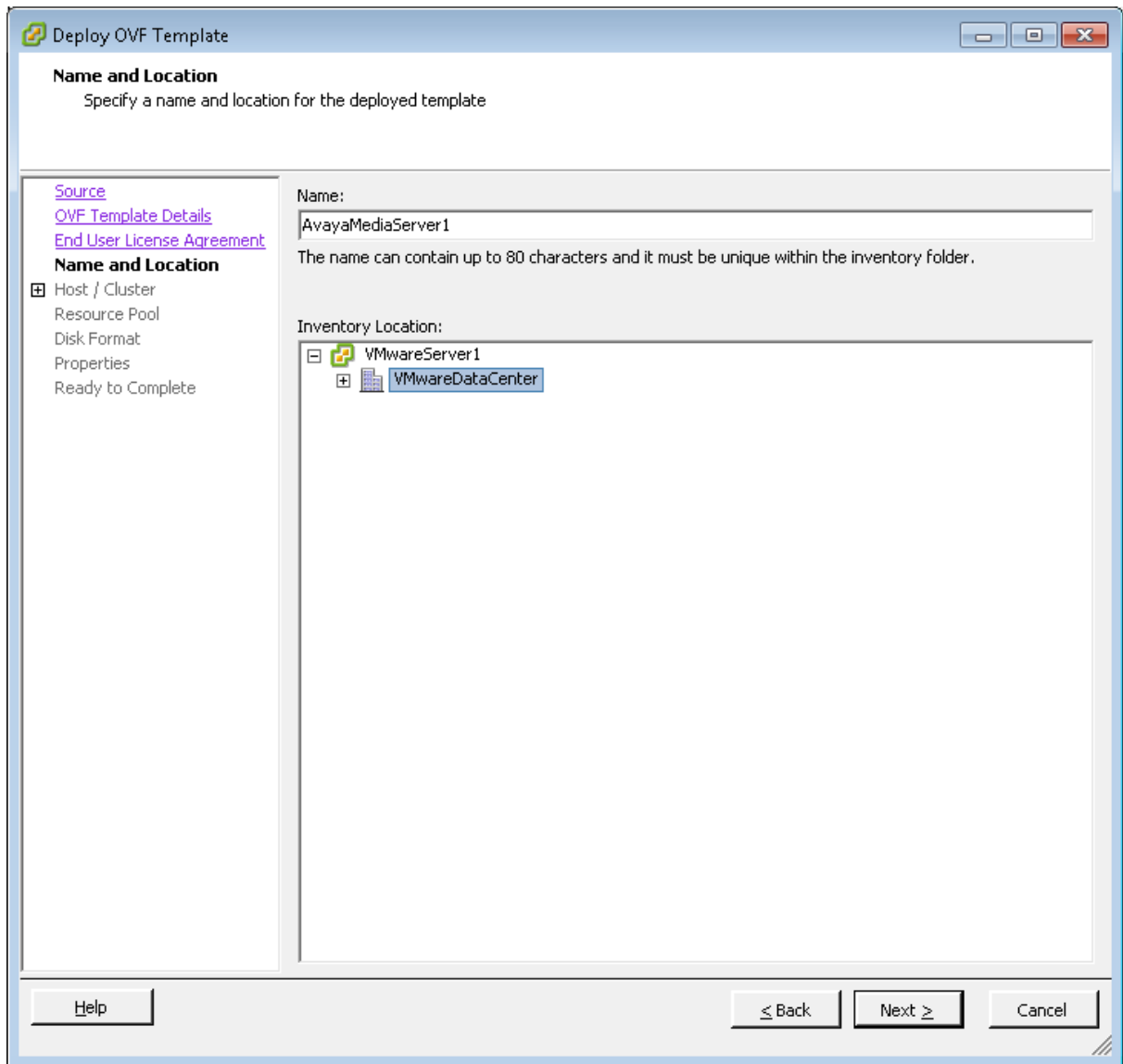
Deploy the Avaya Media Server OVA file onto a VMware ESXi host server through vCenter. This creates a virtual machine with Avaya Media Server software for use in Avaya Contact Center Select solutions.

Procedure

1. In your vCenter client, select the host server on which to deploy the Avaya Media Server OVA.
2. Select **File > Deploy OVF Template**.
3. On the **Source** window, Click **Browse**.
4. On the **Open** message box, select the Avaya Media Server OVA file.
5. Click **Open**.



6. On the **Source** window, click **Next**.
7. On the **OVF Template Details** window, verify the details of the Avaya Media Server OVA template and click **Next**.
8. On the **End User License Agreement** window, read the license agreement, and if acceptable, click **Accept**.
9. Click **Next**.



10. On the **Name and Location** window, type the name of the new Avaya Media Server guest (virtual machine). This is not the server host name, this is the name of the VMware guest virtual machine as it appears in the VMware inventory.
11. Click **Next**.
12. On the Host and Cluster window, select the host server or cluster on which to deploy the Avaya Media Server OVA. If you selected a cluster, select a **Specific Host** on that cluster.
13. Click **Next** to display the **Storage** window.
14. From the **Select a destination storage for the virtual machine files** list, select a location to store the Avaya Media Server virtual machine image. Ensure that the storage location you select has sufficient available storage space to store a thick provisioned virtual machine image.

15. Click **Next**.
16. On the **Disk Format** window, select **Thick Provision Lazy Zeroed**. Avaya Media Server does not support thin provisioning in production environments.
17. Click **Next**.

Deploy OVF Template

Properties
Customize the software solution for this deployment.

[Source](#)
[OVF Template Details](#)
[End User License Agreement](#)
[Name and Location](#)
[Host / Cluster](#)
[Disk Format](#)
Properties
 Ready to Complete

Application

Hostname
(Required) Hostname to assign to this VM.

SIP/SOAP Trusted Nodes
(Required) Comma-separated list of IP addresses to be added to the AMS SIP and SOAP Trusted Nodes lists. At a minimum, this should contain an Avaya Contact Center server address, but should also contain:
 * Session Manager SIP Entity address if the Agent Greeting recorder is to be employed on this AMS server
 * CCMA address, if not installed co-resident with CCMS

SIP Domain Name
(Optional) SIP domain name used by Avaya Contact Center. This is used to create a content namespace within the AMS Content Store and upload sample music and announcement files. If not specified, no sample content will be uploaded. After deployment, content within the AMS Content Store can be managed through CCMA or AMS Element Manager.

Default Locale
Default locale value used by default for fetching of announcement and prompt audio content from the AMS Content Store

NTP Server Address
(Optional) IP address or hostname of Network Time Protocol server that this VM should synchronize its clock with.

Disable port 554 access?

[Help](#) [≤ Back](#) [Next ≥](#) [Cancel](#)

18. On the **Properties** window, in the **Hostname** box, type the hostname of the Avaya Media Server server.
19. In the **SIP/SOAP Trusted Nodes** box, type the IP address of the Avaya Contact Center Select server. Add the IP address of the IP Office server here. You can add multiple IP addresses by separating them with a comma.

For example, to add an Avaya Contact Center Select server with IP address 10.134.35.81 and an IP Office server with address 10.134.35.82, enter the following:

```
10.134.35.81, 10.134.35.82
```

If at this stage of the deployment you do not know all of your trusted nodes, you can add trusted node IP addresses later using Avaya Media Server Element Manager.

20. In the **SIP Domain Name** box, enter the name of the SIP domain used by Contact Center. In the Avaya Media Server Element Manager (EM), you organize media within a content namespace. If you enter a SIP Domain Name, Avaya Media Server automatically creates a content namespace with that name. If you do not provide a SIP Domain Name here, no sample media content is provisioned on this Avaya Media Server instance.
21. From the **Default Locale** list, select the default locale to be used when retrieving announcements and audio prompts from the Avaya Media Server content store. The default option is en_us.
22. In the **NTP Server Address** box, type the IP address of your Network Time Protocol (NTP) server. You use the NTP server to synchronize servers with each other and with the Avaya Contact Center Select solution. Use IPv4 formatting.
23. To disable Secure Shell (SSH) access for the root user account, select **Disable root SSH access?**.
24. In the **Default Gateway** box, type the IP address of the default gateway. Use IPv4 formatting.

Deploy OVF Template

Properties
Customize the software solution for this deployment.

[Source](#)
[OVF Template Details](#)
[End User License Agreement](#)
[Name and Location](#)
[Host / Cluster](#)
[Disk Format](#)
Properties
 Ready to Complete

Default locale value used by default for fetching of announcement and prompt audio content from the AMS Content Store
 en_us

NTP Server Address
 (Optional) IP address or hostname of Network Time Protocol server that this VM should synchronize its clock with.

Disable root SSH access?
 Should SSH access for the root user account be disabled? This is recommended for production systems as a security measure.
☐

Networking Properties

Default Gateway
 The default gateway address for this VM.

DNS
 The domain name servers for this VM (comma separated).

Network 1 IP Address
 The IP address for this interface.

Network 1 Netmask
 The netmask or prefix for this interface.

Help < Back Next > Cancel

25. In the **DNS** box, type the IP address of one or more DNS servers. Use IPv4 formatting. Separate the IP addresses with a comma.
26. In the **Network 1 IP Address** box, type the IP address of the Avaya Media Server. Use IPv4 formatting.
27. In the **Network 1 Netmask** box, type the subnet mask IP address. Use IPv4 formatting.
28. Click **Next**.
29. On the **Ready to Complete** window, verify the deployment settings. If you need to modify any of the settings, click **Back**.
30. Click **Power on after deployment**.

31. Click **Finish**.

The Avaya Media Server template begins to load.

32. On the **Deployment Completed Successfully** message box, click **Close**.
33. In the vCenter client, from the inventory list in the left pane, select the new Avaya Media Server guest.
34. Select the Avaya Media Server guest from the list of virtual machine on the target VMware host.
35. In the right pane, select the **Console** tab for the new Avaya Media Server guest, right-click the mouse and select **Open Console**.
36. On the Avaya Media Server guest console, in the virtual appliance welcome screen, use the keyboard arrow keys to select the **Login** option and press `Enter`.
37. At the prompt, enter `root`.
38. At the **New password** prompt, enter a password for the root account.
39. At the **Retype new password** prompt, reenter the password for the root account.
40. At the **AMS User Account - New password**, enter a password for the Avaya Media Server “amsuser” administration account.
41. At the **Retype new password** prompt, re-enter the “amsuser” password.
42. You must complete the remaining tasks in this chapter to configure the Linux server and finish preparing the Avaya Media Server virtual machine.

Logging on to Avaya Media Server Element Manager

About this task

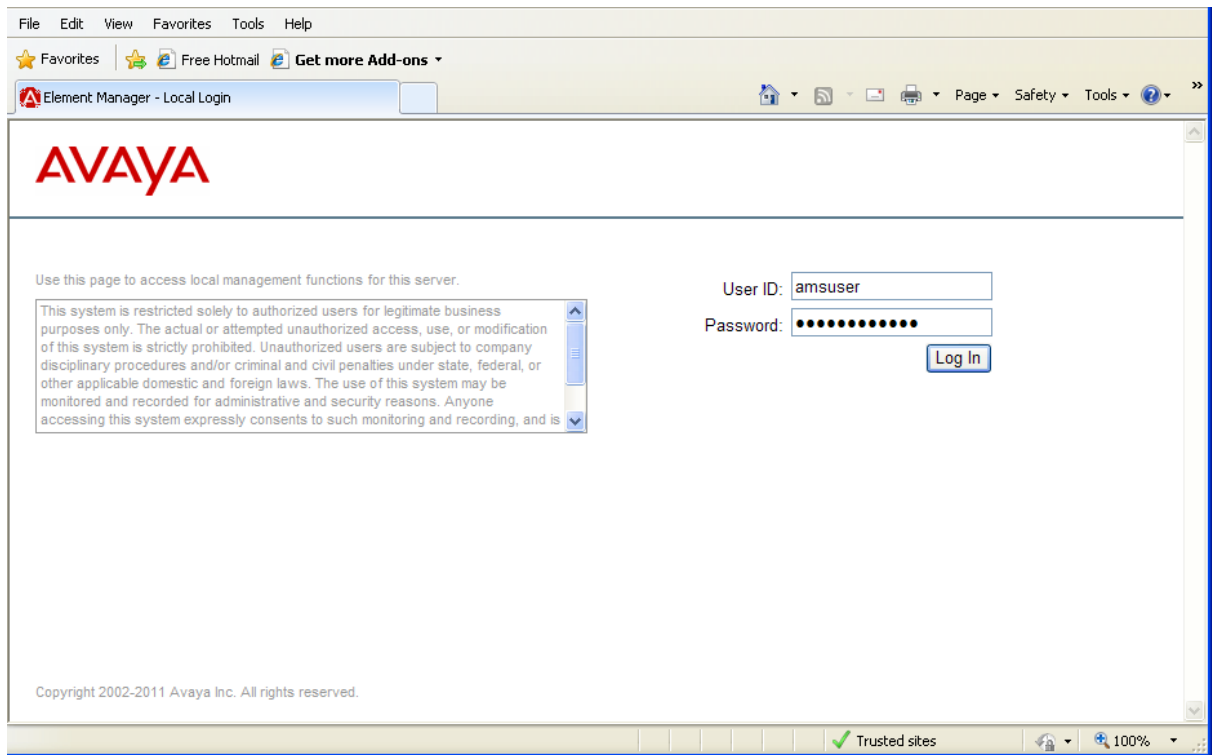
Log on to Avaya Media Server Element Manager to configure Avaya Media Server.

Element Manager (EM) is a web-based administration tool that facilitates the Operation, Administration, and Maintenance (OAM) of Avaya Media Server. A SIP-enabled Contact Center solution must contain one or more Avaya Media Server servers. Each Avaya Media Server server in the Contact Center solution must be licensed and configured to provide media services.

Procedure

1. On your client computer, start a Web browser.
2. In the address box, enter `https://SERVER_IP_ADDRESS:8443/em`. Where `SERVER_IP_ADDRESS` is the IP address of the Avaya Media Server.
3. In the **User ID** box, type the Avaya Media Server User ID log on account name. For example, type `amsuser`.
4. In the **Password** box, type the `amsuser` account password.

5. Click **Log In**.



Installing Avaya Media Server patches

Before you begin

- Download and review the Contact Center Release Notes. The Release Notes contain the known issues, patches, and workarounds specific to a release and patch line-up of Contact Center. For more information about the Contact Center Release Notes, see www.avaya.com/support.
- Download the most recent Avaya Media Server Quick Fix Engineering patches and store them in the QFE subdirectory on the Avaya Media Server. QFE patches are ZIP files, do not un-zip QFE patches. The Avaya Media Server patching utility uses the QFE ZIP files. For a Linux server the default QFE folder location is /opt/avaya/ma/MAS/qfe.
- Read the QFE Readme files for the most recent information and instructions.

About this task

Install a new Quick Fix Engineering patch to apply an update to the Avaya Media Server system.

*** Note:**

Follow the instructions in the Contact Center Release Notes and in each Avaya Media Server patch Readme file.

Procedure

1. Navigate to the Element Manager for the Avaya Media Server node you want to patch.
2. In the navigation pane, click **System Status** > **Element Status**.
3. Click **Stop** and confirm the operation on the following page.
4. Close Element Manager.
5. In the VMware vSphere client, from the inventory list in the left pane, select the Avaya Media Server virtual machine.
6. With the Avaya Media Server virtual machine still selected, right-click and select **Open Console**.
7. On the Avaya Media Server console, change to the root user by running the `su -` command.
8. Obtain the correct name of the new QFE patch by entering the following command:

```
amspatch list all
```

The name of the file is not necessarily the same as the name of the patch name.
9. Under the **QFE Name** column, note the name of the patch (patchname).
10. Install all of the patches in numerical order. To install a new patch on the system, enter the following command:

```
amspatch apply <patchname>
```
11. To install all downloaded QFE patches on the system, enter the following command:

```
amspatch apply all
```
12. When the patch application is complete, open the Element Manager navigation pane, and click **Tools** > **Software Inventory**.
13. Verify the patch version listed in the **Patch Level** column is correct.
14. Select **System Status** > **Element Status**, and click **Start**. Confirm the operation.
15. Select **System Status** > **Alarms** and check for service-impacting alarms.

Securing your Avaya Media Server

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 antivirus software. If you install antivirus software, ensure that you exclude the following directories from the scans. The following are the default install locations:
 - /opt/avaya/ma/MAS/platdata
 - /opt/avaya/ma/MAS/common/log

Adjusting the number of CPU Cores

About this task

You can adjust the number of CPU Cores for a virtual machine. A virtual machine cannot have more vCPUs than the maximum number of logical CPUs on the host virtual server platform. The number of logical CPUs is the number of physical processor cores.

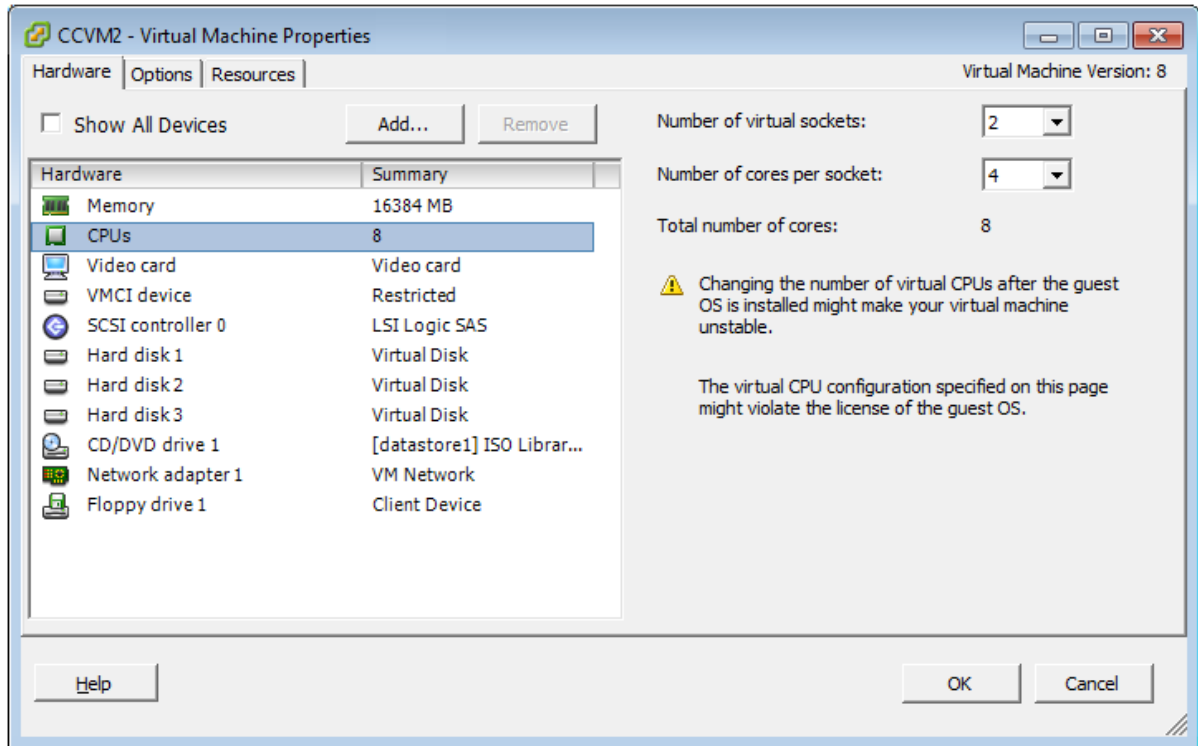
To adjust the number of CPUs used by a virtual machine, you must power off the virtual machine.

Before you begin

- Monitor the CPU performance of the virtual machine.

Procedure

1. Using the vSphere client, select the **Inventory** view.
2. Locate the virtual machine in the inventory navigation tree on the left. If not shown, select **View > Show VMs in Inventory**.
3. Click on the virtual machine.
4. Right-click on the virtual machine and select **Power > Power Off**.
Wait for the virtual machine to power off.
5. Right-click on the virtual machine and select **Edit Settings**.
6. Click the **Hardware** tab and select **CPUs**.
7. From the **Number of virtual sockets** list, select a value.
8. From the **Number of cores per sockets** list, select a value.



9. Click **OK**.
10. Right-click on the virtual machine and select **Power** > **Power On**.

Chapter 8: Avaya Contact Center Select OVA deployment

Avaya Contact Center Select supports the VMware Open Virtual Appliance (OVA) deployment method. A virtual appliance contains a preinstalled, preconfigured Operating System and an application stack optimized to provide a specific set of services. You can use a single Open Virtual Appliance (OVA) package to distribute a Virtual Appliance. An Avaya Contact Center Select OVA package includes all of the Open Virtualization Format (OVF) information required to create an Avaya Contact Center Select Virtual Appliance on a VMware host.

 Note:

The Avaya Contact Center Select OVA uses a default administration account to deploy and run Avaya Contact Center Select software. This Avaya Contact Center Select administration account has full administrative privileges. You must upgrade and patch Avaya Contact Center Select software using this administration account. You can rename this account after deploying Avaya Contact Center Select, but you must not delete the account. If you delete the administration account used to deploy Avaya Contact Center Select, Avaya Contact Center Select stops working.

Avaya Contact Center Select OVA

Deploy the Avaya Contact Center Select OVA to provide context-sensitive and skill-based routing for customer voice and multimedia contacts.

The Avaya Contact Center Select OVA creates and configures a virtual machine (guest) containing contact center application software. The resulting virtual machine contains a Microsoft Windows operating system, hard disk drive partitions, third-party components, system configuration, and Avaya Contact Center Select application software.

The Avaya Contact Center Select Open Virtual Appliance (OVA) contains the following software:

- Microsoft Windows 2008 Release 2, Service Pack 1, Standard Edition, 64-bit operating system
- Contact Center Manager Server (CCMS)
- Contact Center Manager Administration (CCMA)
- Communication Control Toolkit (CCT)
- Contact Center Multimedia (CCMM)

- Contact Center License Manager (LM)
- Contact Center Manager Server Utility (SU)
- Orchestration Designer (OD)
- Default Avaya Contact Center Select configuration data
- Firewall policy
- Configuration Ignition Wizard
- VMware Tools. Do not update the VMware Tools software unless instructed to do so by Avaya.

The Windows 2008 operating system on the Avaya Contact Center Select OVA is not activated.

! Important:

You must supply and install a valid Windows operating system license on the server and activate it within 30 days of the initial power-up. Otherwise the Avaya Contact Center Select server stops working.

The following table shows the operating system on the Avaya Contact Center Select OVA.

Operating System	International Versions Supported	Minimum Service Pack Supported
Windows Server 2008 Release 2, Standard Edition, 64-bit, Service Pack 1.	English	Service Pack 1

The Avaya Contact Center Select OVA package has the following hardware characteristics:

vCPU	Minimum CPU speed	Virtual memory reservation	Number of NICs	Virtual disk storage reservation		
4	—	16GB	1	Drive	Letter	Size (GB)
				OS	C:	80
				CC software	D:	120
				CCMS/CCT database	F:	210
				CCMM database	H:	200
						610 GB total
				HD drive speed	10000 RPM minimum	
				Deploy the Avaya Contact Center Select OVA using Thick Provision Lazy Zeroed. Avaya Contact Center Select does not support thin provisioning.		

*** Note:**

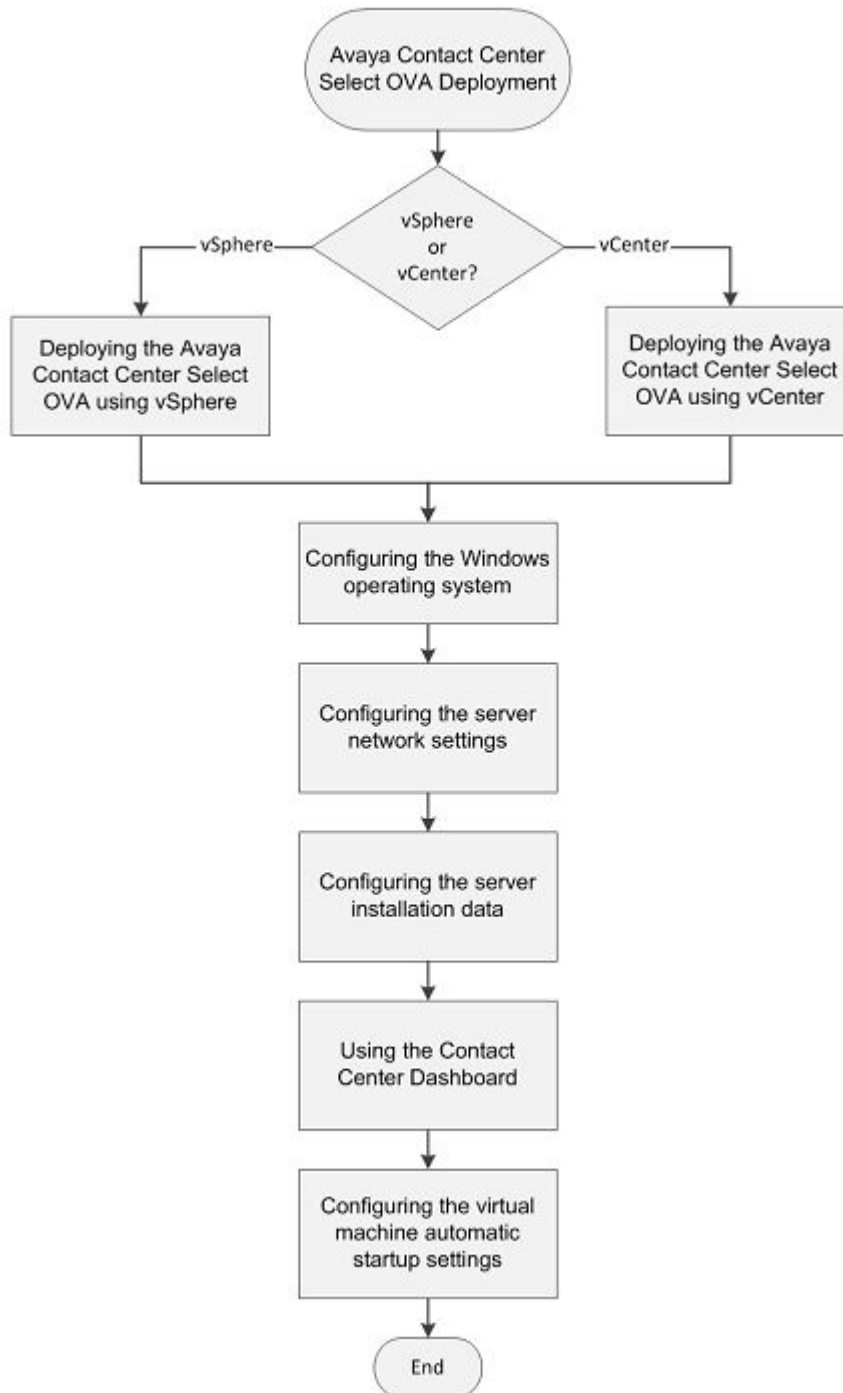
Do not change any of these Avaya Contact Center Select OVA VMware guest settings.

Each Avaya Contact Center Select solution requires a Linux-based Avaya Media Server. Each Avaya Contact Center Select solution also requires an additional, separate, Avaya WebLM licensing manager server.

Avaya Contact Center Select OVA deployment procedures

About this task

This task flow shows you the sequence of procedures you perform to deploy the Avaya Contact Center Select OVA.



Deploying the Avaya Contact Center Select OVA using vSphere

Before you begin

- Download the Avaya Contact Center Select OVA file from the Avaya Product Licensing and Delivery System (PLDS) website at <https://plds.avaya.com/>.
- Know the host name and network details of the Avaya Contact Center Select server.

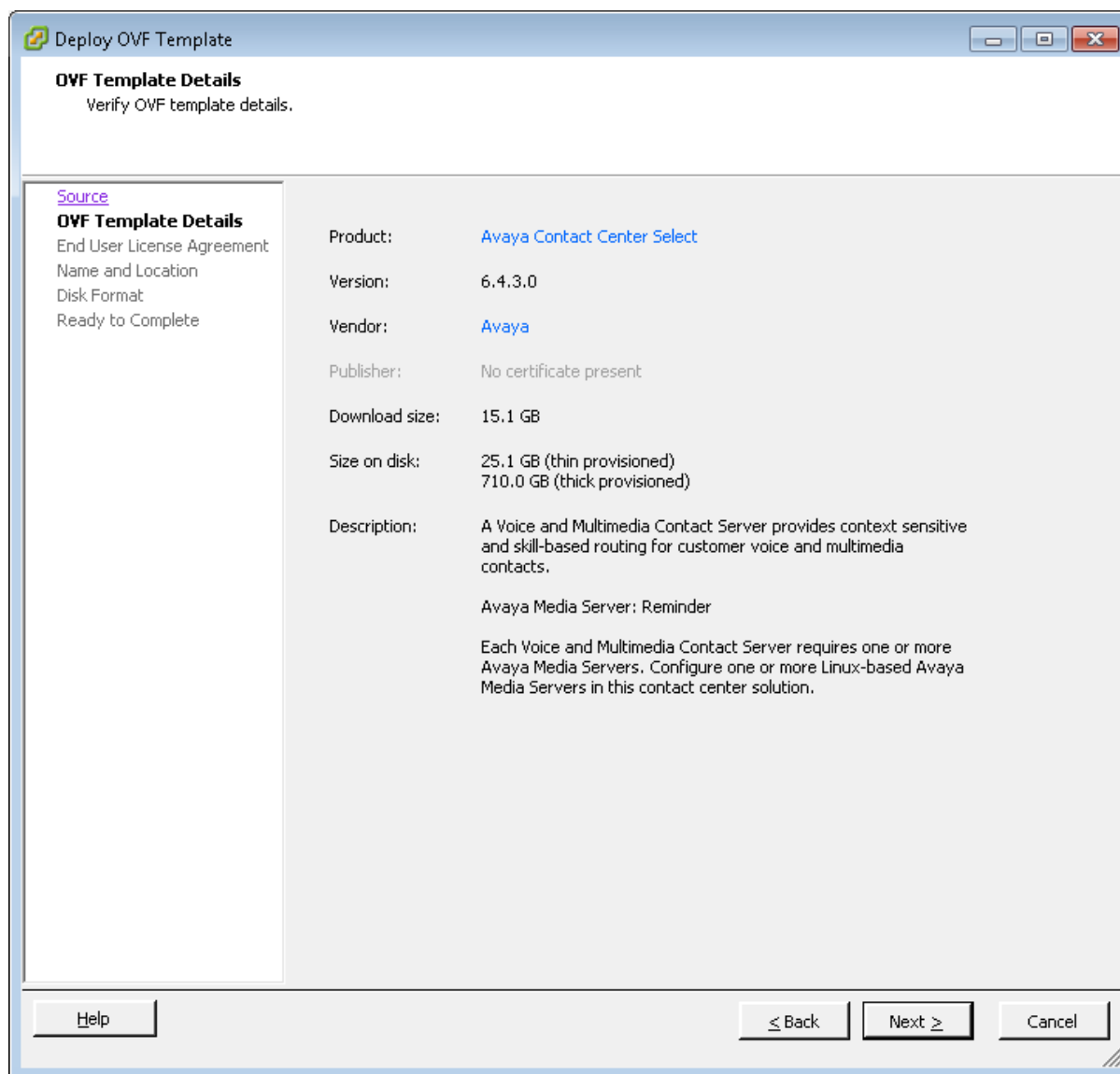
About this task

Deploy the Avaya Contact Center Select OVA to create a virtual machine that provides context-sensitive and skill-based routing for customer voice and multimedia contacts.

If multiple virtual machine networks are configured on the host on which you are deploying the Avaya Contact Center Select OVA, the wizard prompts you to associate networks specified in the OVA with networks available on the host.

Procedure

1. In the vSphere client, select the host ESXi server for deploying the Avaya Contact Center Select OVA.
2. Select **File** > **Deploy OVF Template**.
3. Click **Browse** and provide the Avaya Contact Center Select OVA file location.
4. Click **Next** to display the **OVF Template Details** window.



5. Verify the details of the OVA template and click **Next**.
6. Read the **End User License Agreement** and click **Accept**.
7. Click **Next**.

Deploy OVF Template

Name and Location
Specify a name and location for the deployed template

[Source](#)
[OVF Template Details](#)
[End User License Agreement](#)
Name and Location
Disk Format
Ready to Complete

Name:
ContacCenterSelect1

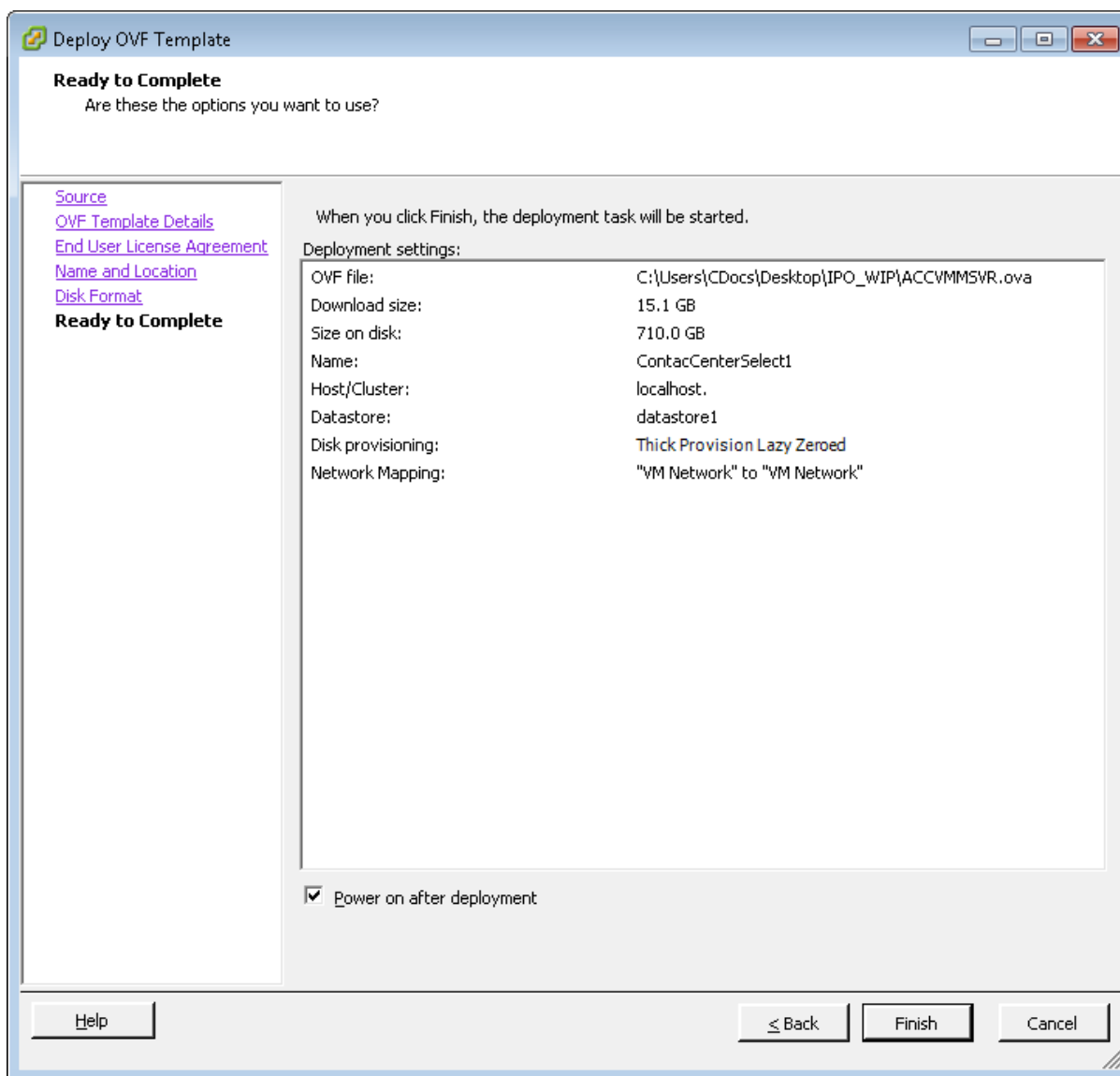
The name can contain up to 80 characters and it must be unique within the inventory folder.

Help < Back Next > Cancel

8. In the **Name** box, enter the name of the new virtual machine. This is not the host name of the Avaya Contact Center Select; this is the name of the virtual machine as displayed in vSphere.
9. Click **Next** to display the **Disk Format** window.

The screenshot shows a window titled "Deploy OVF Template" with a standard Windows-style title bar. The main content area is titled "Disk Format" and contains the question "In which format do you want to store the virtual disks?". On the left, there is a sidebar with a list of steps: "Source", "OVF Template Details", "End User License Agreement", "Name and Location", and "Disk Format" (which is currently selected and highlighted). Below the sidebar, the text "Ready to Complete" is visible. The main area contains two input fields: "Datastore:" with the value "datastore1" and "Available space (GB):" with the value "904.0". Below these fields are three radio button options: "Thick Provision Lazy Zeroed" (which is selected), "Thick Provision Eager Zeroed", and "Thin Provision". At the bottom of the window, there are three buttons: "Help", "≤ Back", and "Next ≥", followed by a "Cancel" button.

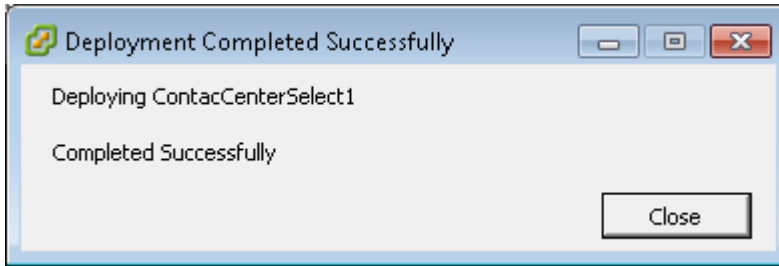
10. Select **Thick Provision Lazy Zeroed** and click **Next**.



11. On the **Ready to Complete** window, verify the deployment settings. If you need to modify any of the settings, click **Back**.
12. Click **Power on after deployment**.
13. Click **Finish**.

The Avaya Contact Center Select OVA begins to deploy.

14. When the Avaya Contact Center Select OVA is deployed, the **Deployment Completed Successfully** message box appears.



15. Click **Close**

The Avaya Contact Center Select virtual machine begins to power up.

Deploying the Avaya Contact Center Select OVA using vCenter

Before you begin

- Download the Avaya Contact Center Select OVA file from the Avaya Product Licensing and Delivery System (PLDS) website at <https://plds.avaya.com/>.
- Know the host name and network details of the Avaya Contact Center Select server.

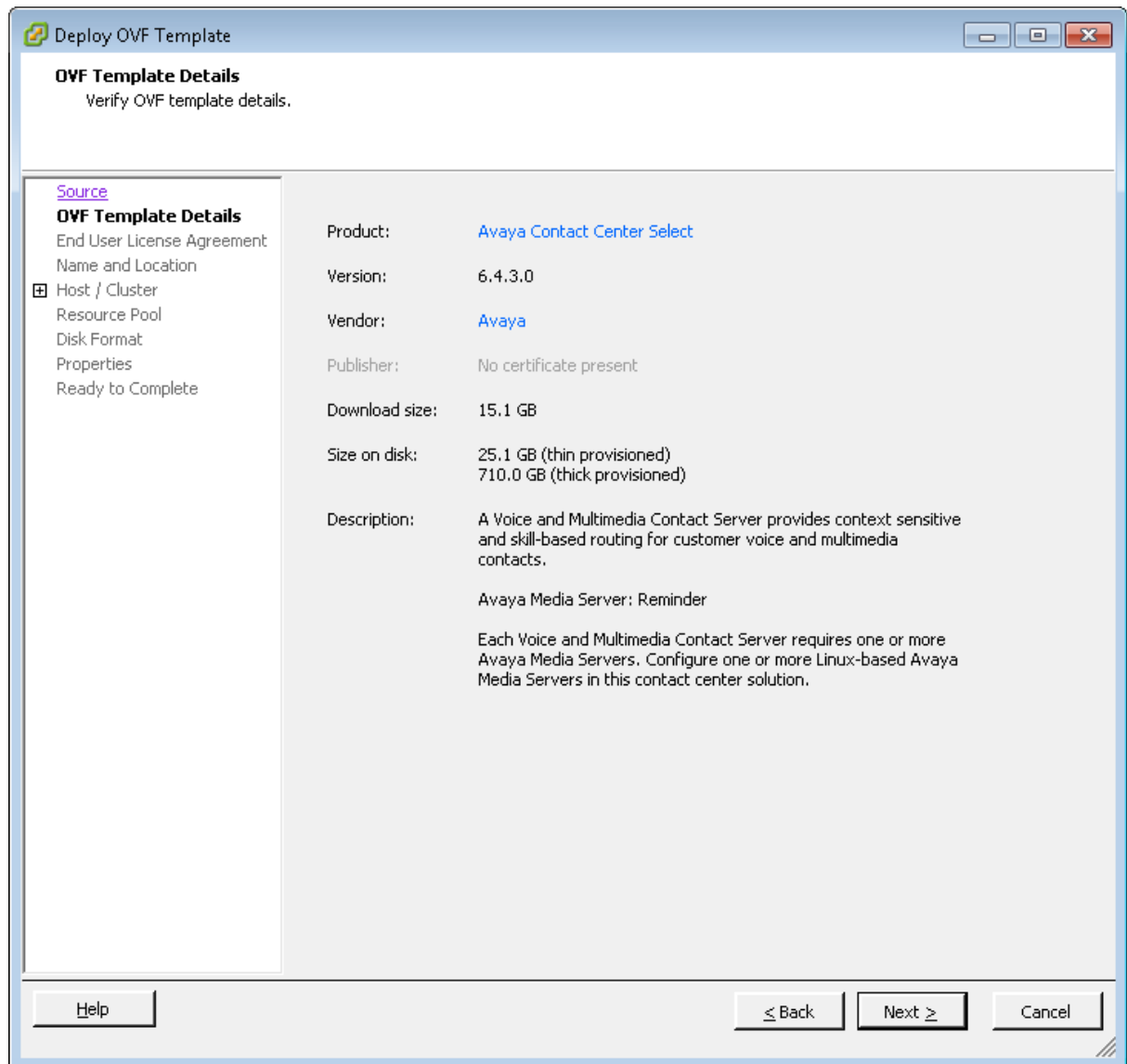
About this task

Deploy the Avaya Contact Center Select OVA to create a virtual machine that provides context-sensitive and skill-based routing for customer voice and multimedia contacts.

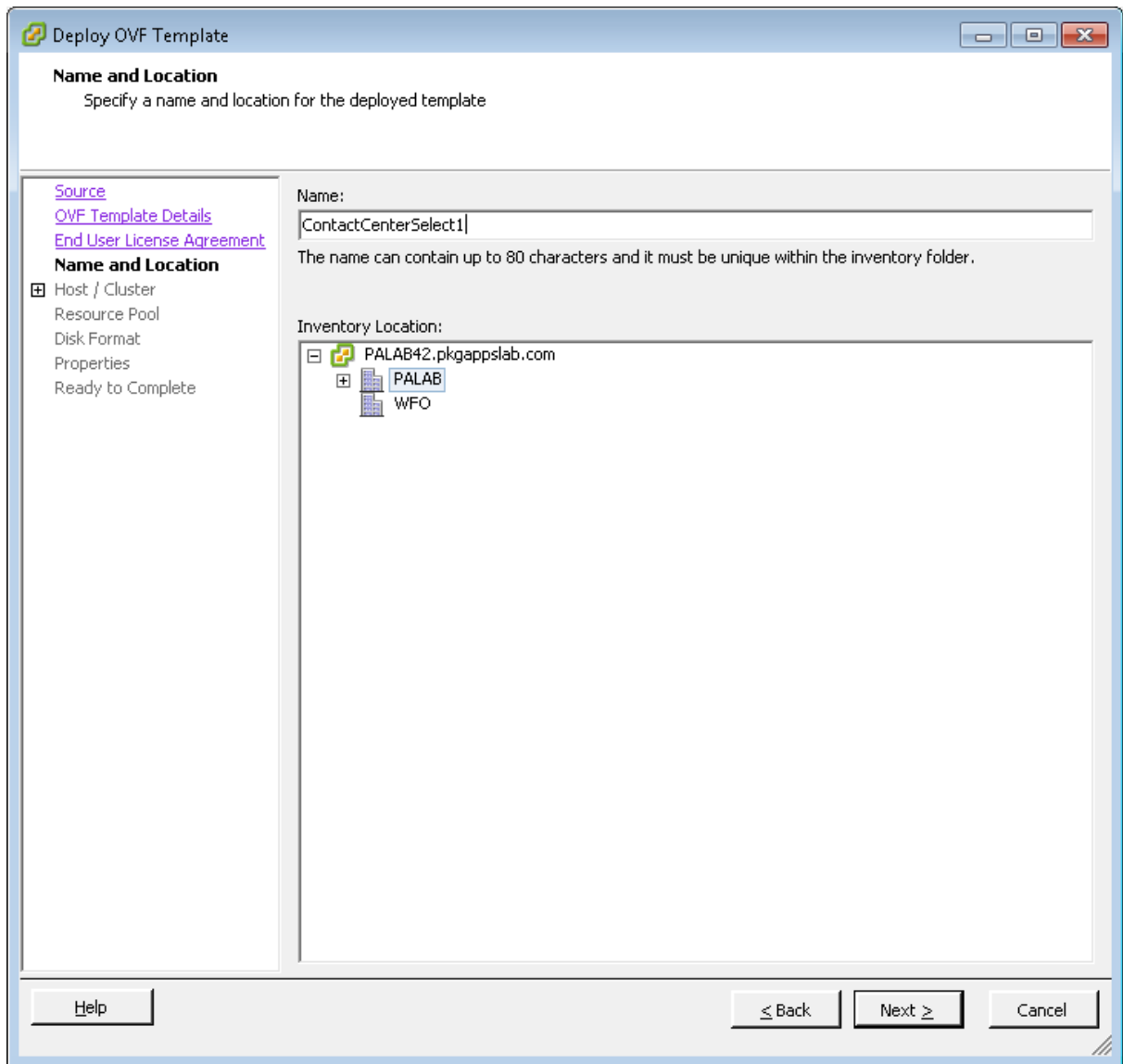
If multiple virtual machine networks are configured on the host on which you are deploying the Avaya Contact Center Select OVA, the OVF wizard prompts you to associate networks specified in the OVA with networks available on the host.

Procedure

1. In the vSphere client, select **File > Deploy OVF Template**.
2. Click **Browse** and provide the Avaya Contact Center Select OVA file location.
3. Click **Next** to display the **OVF Template Details** window.



4. Verify the details of the OVA template and click **Next**.
5. Read the **End User License Agreement** and click **Accept**.
6. Click **Next**.



7. In the **Name** box, enter the name of the new virtual machine. This is not the host name of the Avaya Contact Center Select; this is the name of the virtual machine as displayed in vCenter.
8. Click **Next**.
9. On the Host and Cluster window, select the host server or cluster on which to deploy the Avaya Contact Center Select OVA. If you selected a cluster, select a **Specific Host** on that cluster.
10. Click **Next** to display the **Storage** window.
11. From the **Select a destination storage for the virtual machine files** list, select a location to store the Avaya Contact Center Select virtual machine image.

12. Ensure that the storage location you select has sufficient available storage space to store a thick provisioned Avaya Contact Center Select virtual machine image. Ensure that the **Compatibility** box does not contain an **Insufficient disk space for thick provisioning** warning.
13. Click **Next** to display the **Disk Format** window.

Deploy OVF Template

Disk Format
In which format do you want to store the virtual disks?

[Source](#)
[OVF Template Details](#)
[End User License Agreement](#)
[Name and Location](#)
[Host / Cluster](#)
Disk Format
[Properties](#)
[Ready to Complete](#)

Datastore:

Available space (GB):

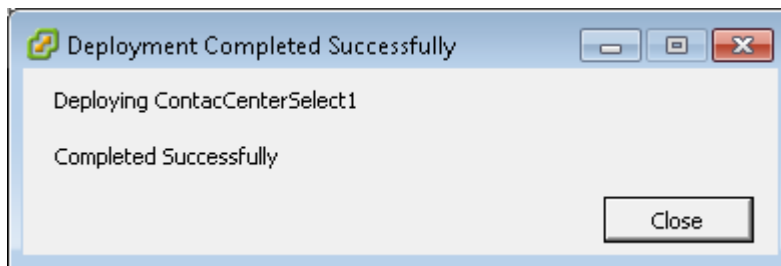
☒ Thick Provision Lazy Zeroed
☐ Thick Provision Eager Zeroed
☐ Thin Provision

14. Select **Thick Provision Lazy Zeroed** and click **Next**. Thin provisioning is not supported in production environments.
15. On the **Network Mapping** window, configure a network interface for the Avaya Contact Center Select virtual machine.
16. Click **Next** to display the **Properties** window.

17. On the **Properties** window, in the **Computer Name** box, type the host name for the Avaya Contact Center Select.
18. In the **IP Address** box, type the IP address for the server.
19. In the **Subnet Mask** box, type the subnet mask IP address for the server.
20. In the **Default Gateway** box, type the default gateway IP address for the server.
21. In the **DNS IP Address** box, type the IP address for the server.
22. Click **Next**.
23. On the **Ready to Complete** window, verify the deployment settings. If you need to modify any of the settings, click **Back**.
24. Click **Power on after deployment**.
25. Click **Finish**.

The Avaya Contact Center Select OVA begins to deploy.

26. When the Avaya Contact Center Select OVA is deployed, the **Deployment Completed Successfully** message box appears.



27. Click **Close**

The Avaya Contact Center Select virtual machine begins to power up.

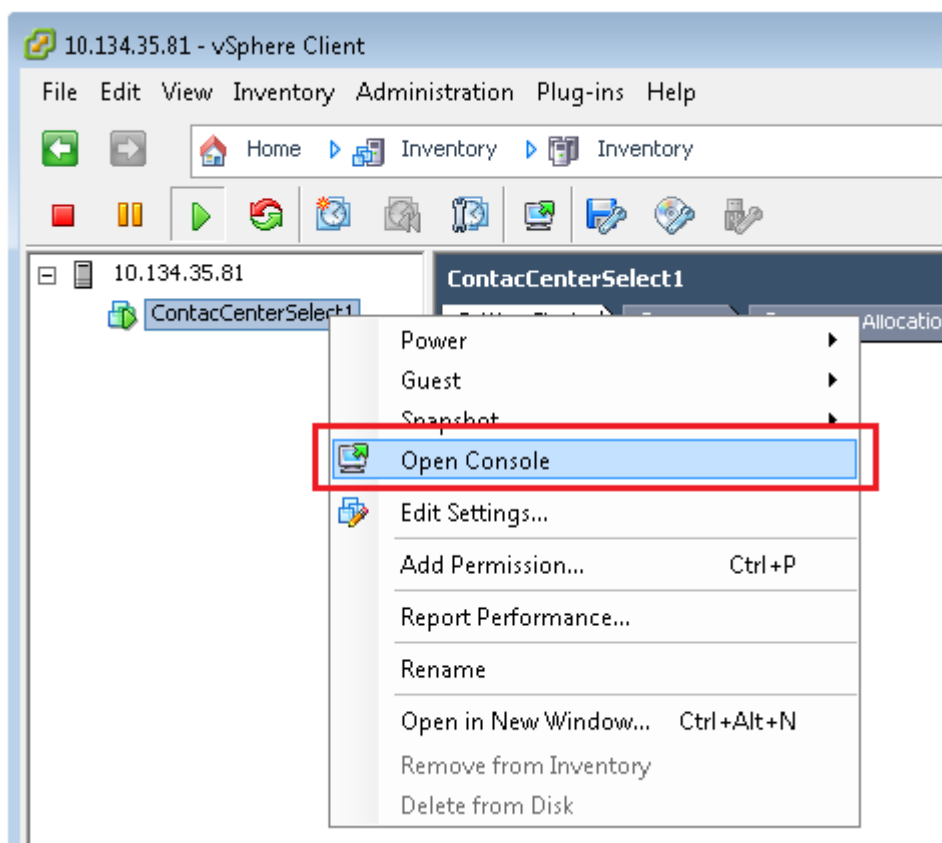
Configuring the Windows operating system

About this task

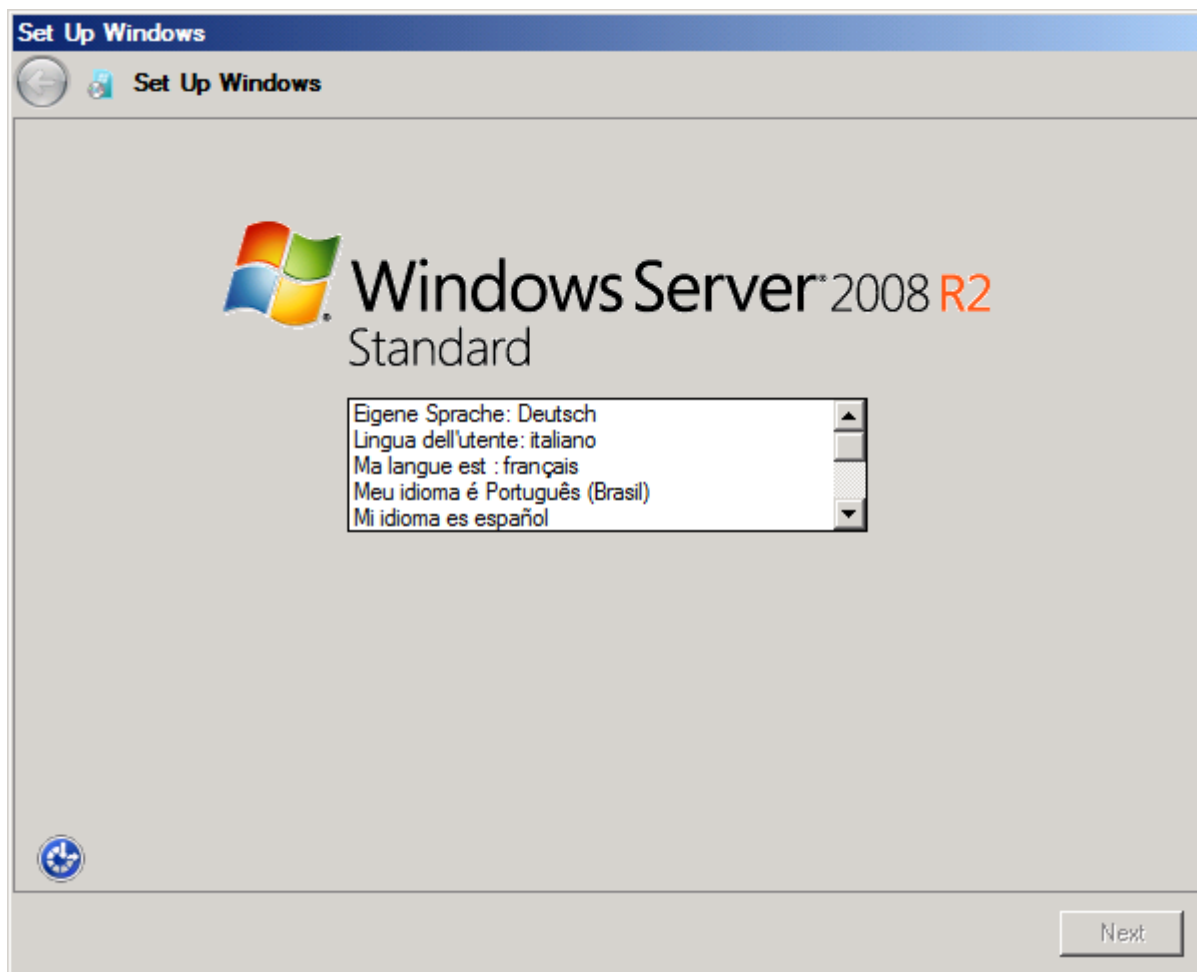
Configure the Microsoft Windows operating system of the Avaya Contact Center Select server. Configure the locale settings, enter the license keys for the operating system, and configure the password for the Administrator account.

Procedure

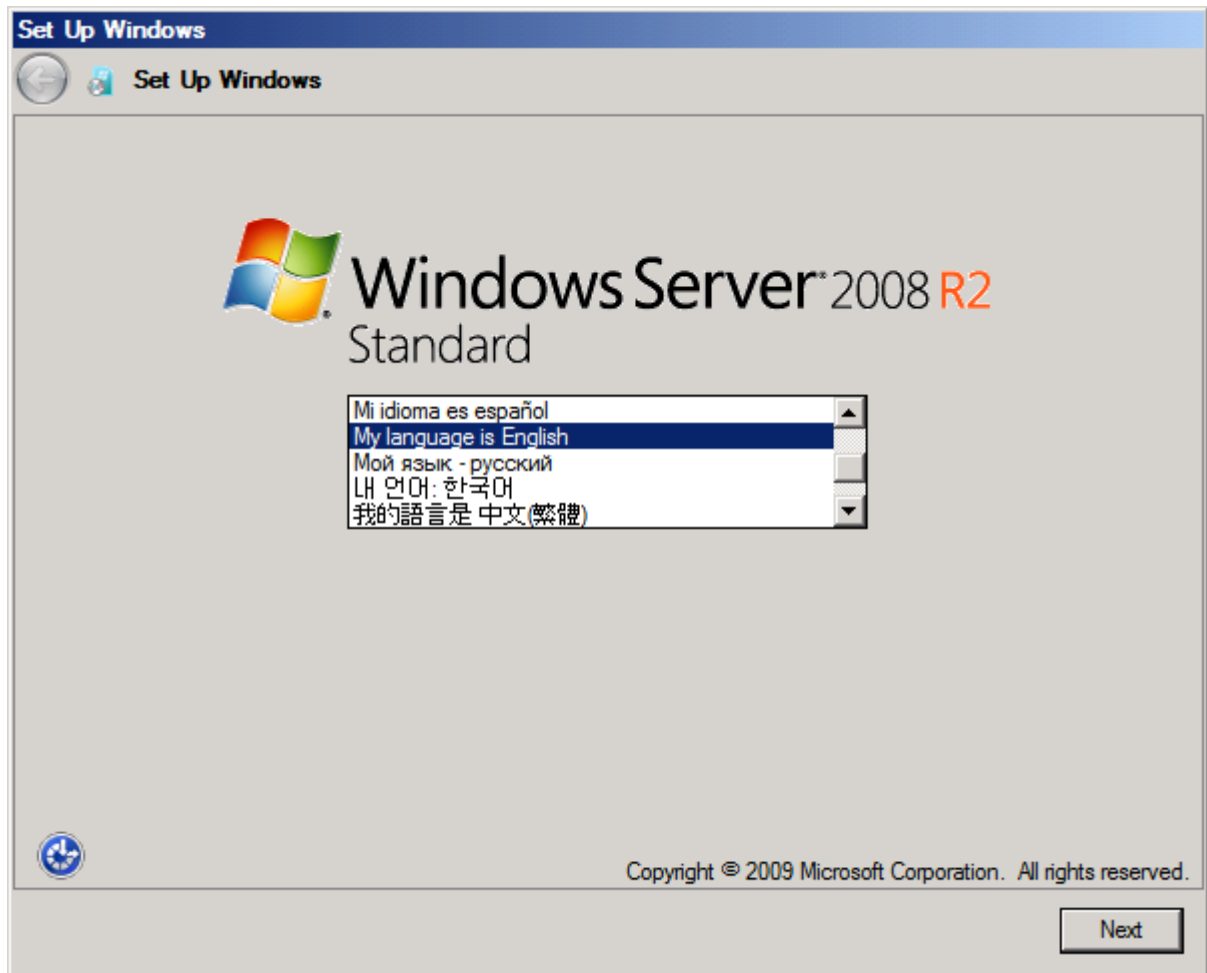
1. Select the Avaya Contact Center Select guest from the list of virtual machines on the target VMware host.
2. With the Avaya Contact Center Select guest still selected, right-click the mouse and select **Open Console**.



The Avaya Contact Center Select guest console appears displaying the **Set Up Windows** screen.



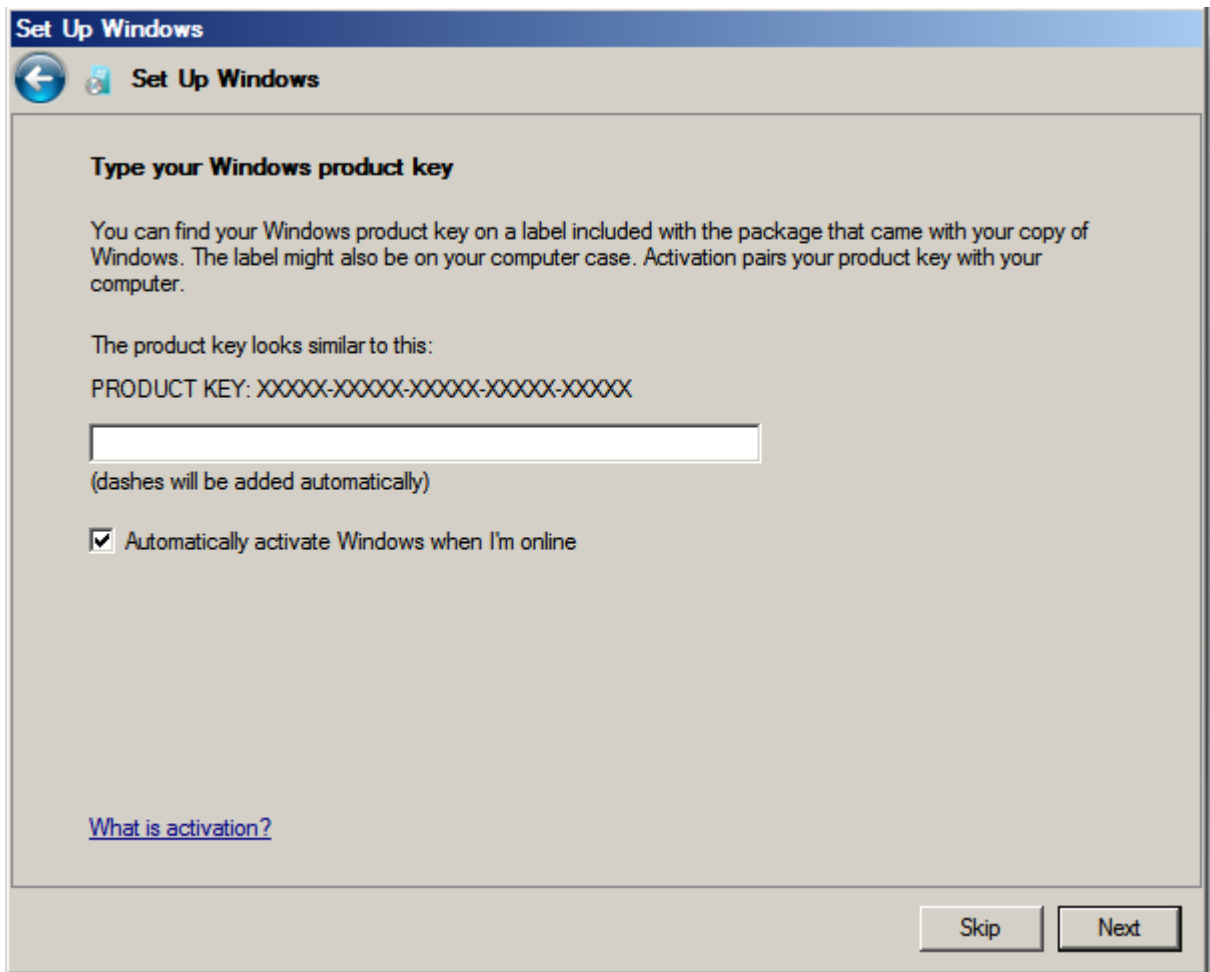
3. From the list of languages, select your language. For example, scroll down and select **My language is English**.



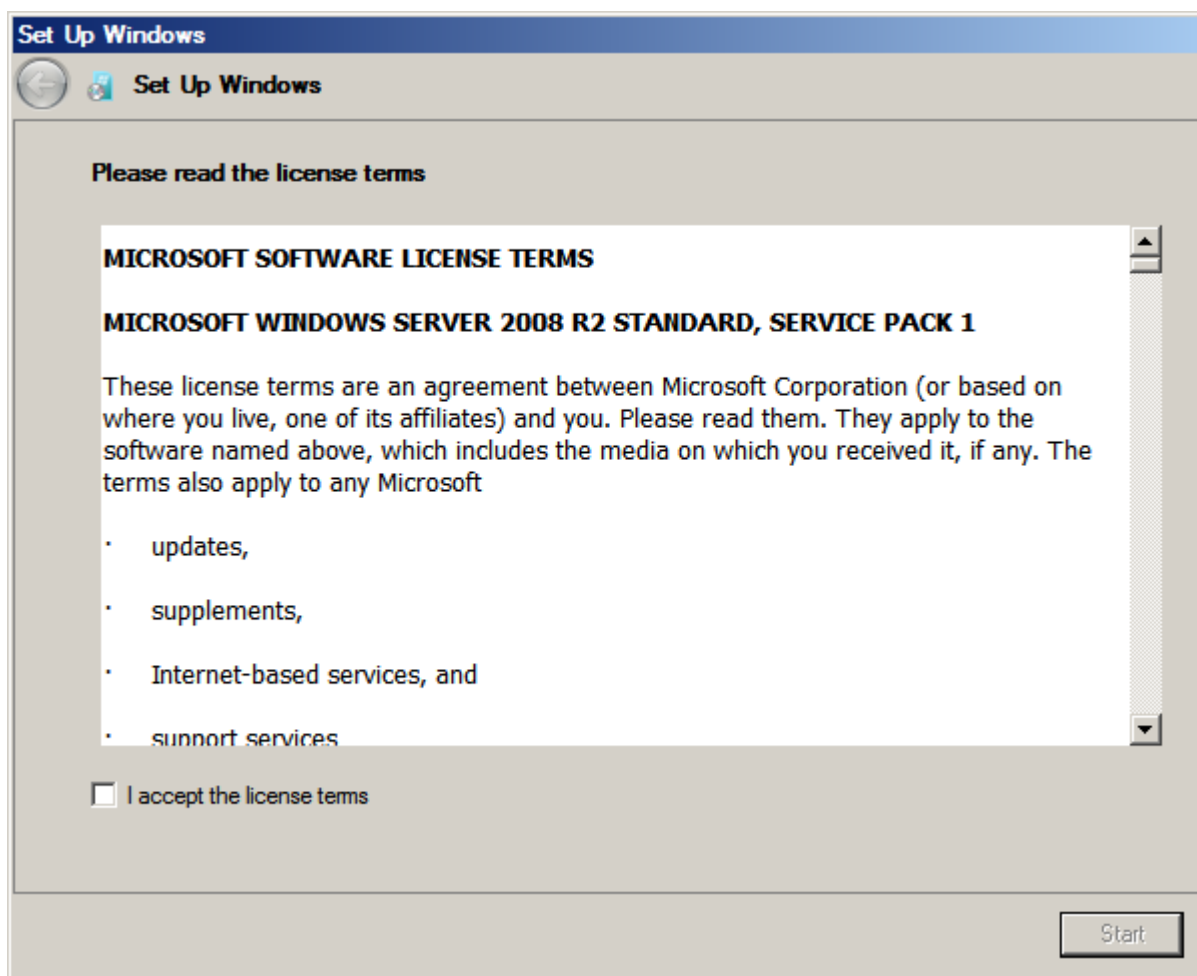
4. Click **Next**.



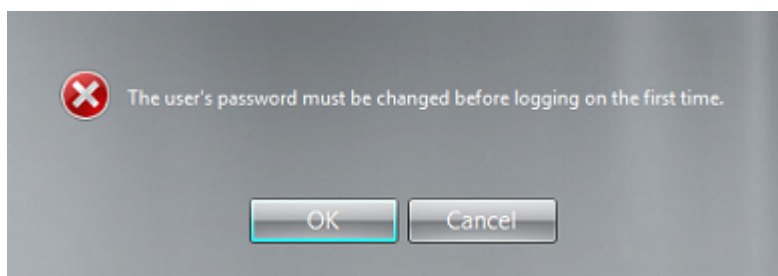
5. In the **Set Up Windows** screen, from the **Country or region** list, select the country or region of the Avaya Contact Center Select. For example, select **United States**.
6. From the **Time and currency** list, select the time location and currency. For example, select **English (United States)**.
7. From the **Keyboard layout** list, select the keyboard layout. For example, select **US**.
8. Click **Next**.



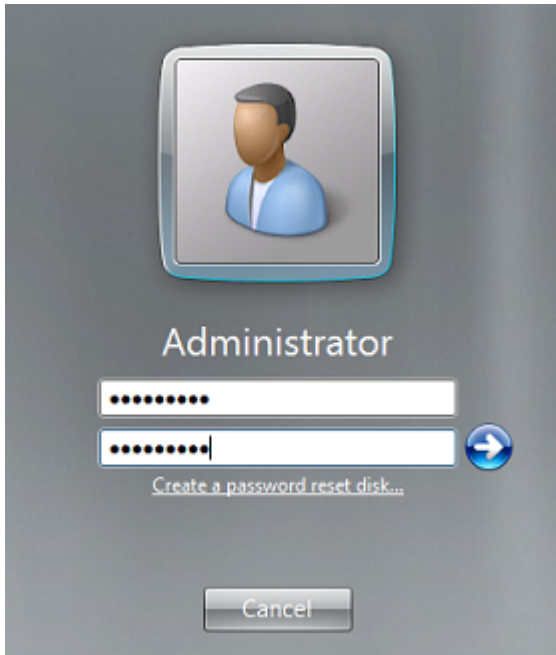
9. In the **PRODUCT KEY** box, enter your license key for the Windows operating system.
10. Select the check box to activate the Windows operating system from the internet.
11. Click **Next**.



12. On the license agreement screen, read the license agreement, and if acceptable select **I accept the license terms**.
13. Click **Start**.



14. After the server starts, click **OK** to change the Administrator password.



15. In the first box, enter a password for the Administrator Windows account.
16. In the second box, reenter the password for the Administrator Windows account.
17. Press **Enter**, to apply the password.
18. Click **OK**, to continue configuring the operating system.

Configuring the server network settings

Before you begin

- Deploy the Avaya Contact Center Select OVA.
- Know the IP address and networking details for the Avaya Contact Center Select virtual machine.

About this task

Configure the Avaya Contact Center Select network settings using the custom deployment wizard. If you are using vCenter, the Network Configuration data fields are pre-populated.

Note:

Avaya recommends that you configure the server final production name when installing Avaya Contact Center Select.

Procedure

1. In the vSphere client, from the inventory list in the left pane, select the new Avaya Contact Center Select guest.
2. With the Avaya Contact Center Select guest still selected, right-click the mouse and select **Open Console**.

The Avaya Contact Center Select console appears. The Network Configuration utility automatically appears.

Avaya Contact Center

Network Configuration

Enter the required configuration data.

Network Configuration

Computer information

Computer Name

DNS server information

Preferred DNS server (IP address)

IP settings

IP address

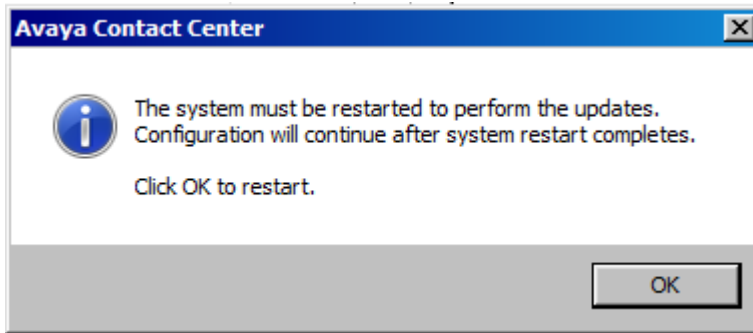
Subnet mask

Default gateway

Click Apply to perform the network configuration.

Apply

3. On the **Network Configuration** screen, in the **Computer name** box, type the host name for the Avaya Contact Center Select.
4. In the **IP address** box, type the IP address for the server.
5. In the **Subnet mask** box, type the subnet mask IP address for the server.
6. In the **Default gateway** box, type the default gateway IP address for the server.
7. In the **Preferred DNS server (IP address)** box, type the IP address for the server.
8. Click **Apply**.



9. Click **OK** to restart the server.

Configuring the server installation data

Before you begin

- Know the IP address of the IP Office primary call server.
- Know the IP Office Service User account name and password.
- Know the IP Office System Password. Ask your IP Office Administrator for the System Password.
- Configure an IP Office SIP User Extension Number to be used to register Avaya Contact Center Select.
- Configure an IP Office short code to forward customer calls to an Avaya Contact Center Select CDN (Route Point).
- Install an Avaya WebLM server. Know the IP address and port number of the Avaya WebLM server.
- Install an Avaya Media Server server. Know the IP address and port number of the Avaya Media Server server.
- If your Avaya Contact Center Select solution is going to support email contacts, configure the mailbox details on your email server that you use to receive inbound email messages intended for the Avaya Contact Center Select. Know the name and password for this mailbox.
- If your Avaya Contact Center Select solution is going to support email contacts, know the host name of your email host server.

About this task

Configure the Avaya Contact Center Select installation data to enable communication with an IP Office primary call server.

Optionally, if your solution is to support routed email contacts, configure the mailbox details on your email server that you use to receive inbound email messages intended for the Avaya Contact Center Select. Avaya Contact Center Select logs onto this mailbox on your mail server and retrieves email at defined intervals. Email messages are then routed to agents. To route an email, Avaya Contact Center Select requires the mailbox name and password.

Procedure

1. Select the Avaya Contact Center Select guest from the list of virtual machine on the target VMware host.
2. With the Avaya Contact Center Select guest still selected, right-click the mouse and select **Open Console**.
3. In the Avaya Contact Center Select console, log on to the Avaya Contact Center Select using the Administrator account details.
4. The Avaya Contact Center Select **Welcome** screen appears.



5. Click **Next**.

Avaya Contact Center

End-User License Agreement

AVAYA

Please read the End-User License Agreement carefully. To configure, you must first accept the terms of the End-User License Agreement

AVAYA

AVAYA GLOBAL SOFTWARE LICENSE TERMS
REVISED: October 2013

THIS END USER LICENSE AGREEMENT ("SOFTWARE LICENSE TERMS") GOVERNS THE USE OF AVAYA'S PROPRIETARY SOFTWARE AND THIRD-PARTY PROPRIETARY SOFTWARE. READ THESE SOFTWARE LICENSE TERMS CAREFULLY, IN THEIR ENTIRETY, BEFORE INSTALLING, DOWNLOADING OR USING THE SOFTWARE (AS DEFINED IN SECTION A BELOW). BY INSTALLING, DOWNLOADING OR USING THE SOFTWARE, OR AUTHORIZING OTHERS TO DO SO, YOU, ON BEHALF OF YOURSELF AND THE ENTITY FOR WHOM YOU ARE DOING SO (HEREINAFTER REFERRED TO INTERCHANGEABLY AS "YOU" AND "END USER"), AGREE TO THESE SOFTWARE LICENSE TERMS AND CONDITIONS AND CREATE A BINDING CONTRACT BETWEEN YOU AND AVAYA INC. OR THE APPLICABLE AVAYA AFFILIATE ("AVAYA"). IF YOU ARE ACCEPTING THESE SOFTWARE LICENSE TERMS ON BEHALF OF A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT THAT YOU HAVE THE AUTHORITY TO BIND SUCH ENTITY TO THESE SOFTWARE LICENSE TERMS. IF YOU DO NOT HAVE SUCH AUTHORITY OR DO NOT WISH TO BE BOUND BY THESE SOFTWARE LICENSE TERMS, YOU MUST RETURN OR DELETE THE SOFTWARE WITHIN TEN (10) DAYS OF DELIVERY FOR A REFUND OF THE FEE, IF ANY, YOU PAID FOR THE LICENSE OR IF SOFTWARE IS ACCESSED ELECTRONICALLY, SELECT THE "DECLINE" BUTTON AT THE END OF THESE SOFTWARE LICENSE TERMS OR THE EQUIVALENT OPTION.

A. Definitions

☐ I Accept the Terms of the End-User License Agreement
Click Next to Continue

Print Next > Cancel

6. On the license screen, select **I Accept the Terms of the End-User License Agreement**.
7. Click **Next**.

Avaya Contact Center

Configuration Data

Enter the required configuration data.

IP Office | Core | Licensing | Multimedia

IP Office Server

IP Address: Voice Port: Transport:

IP Office SIP Domain Name:

IP Office Service User

Username: Password:

Confirm Password:

IP Office SIP Extension

Extension Number:

Password:

Confirm Password:

The Contact Center application registers to the IP Office as this SIP extension number.

This SIP extension number must be manually created on the IP Office.

IP Office System Password

Password: Confirm Password:

Contact Center Sample Data

Sample Agent Starting ID: Sample Agents Templated:

Sample CDN (Route Point):

Click Next to Continue

< Back Next > Cancel

8. On the **Configuration Data** screen, select the **IP Office** tab.
9. In the **IP Office Server** section, in the **IP Address** box, type the IP address of the IP Office primary call server.
10. In the **Voice Port** box, type the port number of the IP Office primary call server. The default port number is 5060.
11. In the **Transport** box, type the network transport communication protocol for the IP Office primary call server. The default protocol is TCP.
12. In the **IP Office SIP Domain Name** box, type the SIP domain name of your IP Office primary call server. The Avaya Contact Center Select SIP domain name must match the your IP Office SIP domain name.
13. In the **IP Office SIP Extension** section, in the **Extension Number** box, type the IP Office SIP User Extension Number used to register Avaya Contact Center Select. For more information, see [Configuring the SIP User Extension Number](#) on page 27.
14. In the **IP Office SIP Extension** section, in the **Password** box, type the password of the IP Office SIP User Extension Number used to register Avaya Contact Center Select. Enter the number that you configured for the *Supervisor Settings - Login Code* on the user's *Telephony* tab. For more information, see [Configuring the SIP User Extension Number](#) on page 27.

15. In the **IP Office SIP Extension** section, in the **Confirm Password** box, re-type the password.
16. In the **IP Office Service User** section, in the **Username** box, type the *Service User Name* of the IP Office Manager for your IP Office call server. For more information, see [Using IP Office Manager](#) on page 21.
17. In the **IP Office Service User** section, in the **Password** box, type the *Service User Password* of the IP Office Manager for your IP Office server.
18. In the **IP Office Service User** section, in the **Confirm Password** box, re-type the password.
19. In the **IP Office System Password** section, in the **Password** box, type the *System Password* for your IP Office call server. Ask your IP Office Administrator for the System Password.
20. In the **IP Office System Password** section, in the **Confirm Password** box, re-type the *System Password* for your IP Office call server.
21. In the **Contact Center Sample Data** section, in the **Sample Agent Starting ID** box, type a phone number for the first sample Avaya Contact Center Select agent. Avaya Contact Center Select automatically creates ten sample agents, using this number as the first of ten sequential agent numbers. The default number is 6001.
22. In the **Sample CDN Number** box, type a number for the Avaya Contact Center Select CDN (Route Point). This number must match an IP Office short code entry number. For more information, see [Configuring a shortcode to Contact Center Route Points](#) on page 27. The default number is 3000.
23. Select the **Core** tab.

Avaya Contact Center

Configuration Data

Enter the required configuration data.

IP Office | Core | **Licensing** | Multimedia

Avaya Media Server

IP Address

Port

IP Office Contact Center Media Server Locale

System Account Configuration

Enter a password for the Contact Center administration Windows account.

Password

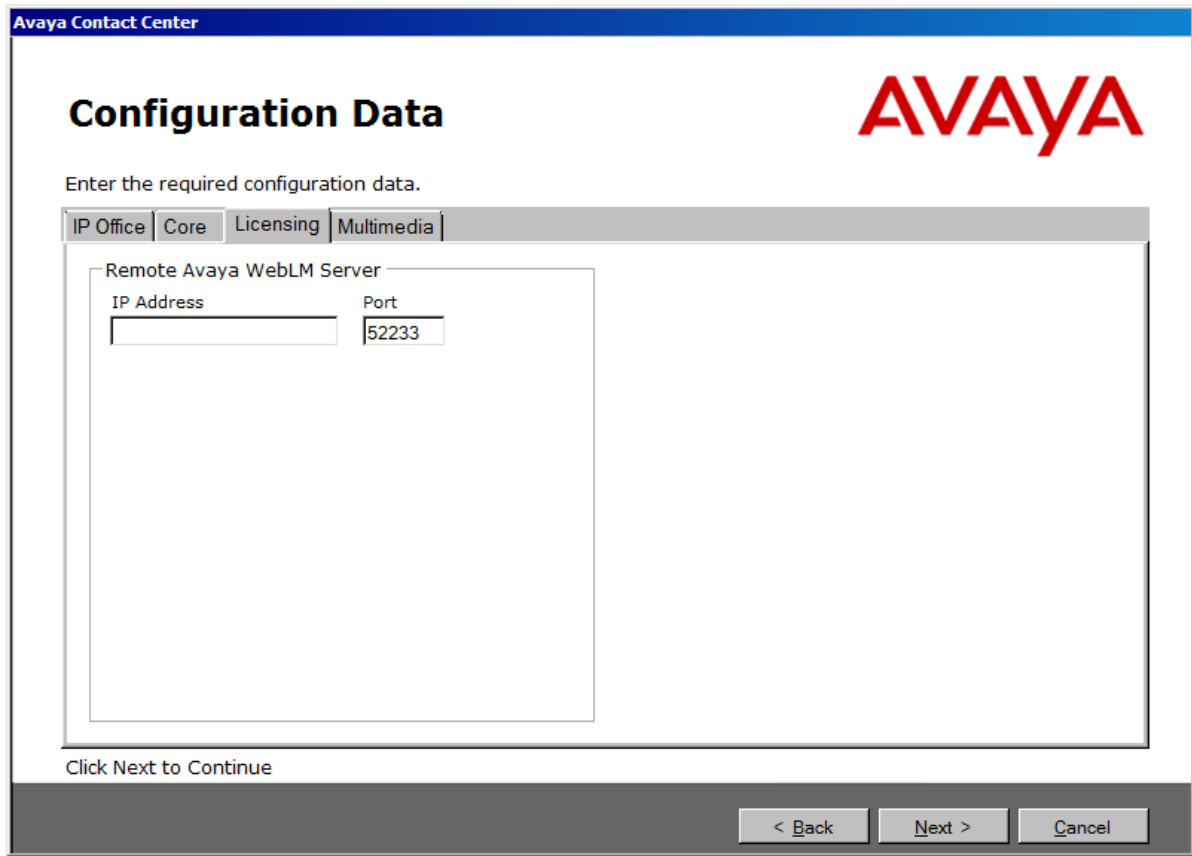
Password Strength
 Not rated

Confirm Password

Click Next to Continue

< Back Next > Cancel

24. In the **Avaya Media Server** section, in the **IP Address** box, type the IP address of your Avaya Media Server.
25. In the **Avaya Media Server** section, in the **Port** box, type the port number for your Avaya Media Server. The default port number is 5060.
26. From the **IP Office Contact Center Media Server Locale** list, select the locale (language and dialect) for the solution environment.
27. In the **System Account Configuration** section, in the **Password** box, type a password for the Avaya Contact Center Select administration account. 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.
28. In the **Confirm Password** box, type the password.
29. Select the **Licensing** tab.



The image shows a screenshot of the 'Avaya Contact Center' configuration window. The title bar is blue with the text 'Avaya Contact Center'. The main window has a white background with the 'AVAYA' logo in red on the top right. The title 'Configuration Data' is in bold black text. Below the title, it says 'Enter the required configuration data.' There are four tabs: 'IP Office', 'Core', 'Licensing', and 'Multimedia'. The 'Licensing' tab is selected. Inside the 'Licensing' tab, there is a section titled 'Remote Avaya WebLM Server'. This section contains two input fields: 'IP Address' and 'Port'. The 'Port' field has the value '52233' entered. Below the input fields, it says 'Click Next to Continue'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Avaya Contact Center

Configuration Data

Enter the required configuration data.

IP Office | Core | **Licensing** | Multimedia

Remote Avaya WebLM Server

IP Address

Port

Click Next to Continue

< Back Next > Cancel

30. In the **IP Address** box, type the IP address of the remote Avaya WebLM server.
31. In the **Port** box, type the port number for the remote Avaya WebLM server. The default port number is 52233.
32. Select the **Multimedia** tab.

33. In the **Mailbox Configuration** section, from the **Mail Provider** list, select None, Microsoft Exchange, Gmail, Outlook (Hotmail), Yahoo, or Other (POP3/IMAP). The default is Microsoft Exchange. If Avaya Contact Center Select is not going to process email contacts, select None. If you select Gmail, Outlook (Hotmail), or Yahoo, the Incoming Mail Server and Outgoing Mail Server sections are automatically populated for you.
34. In the **Mailbox Configuration** section, in the **Display Name** box, type a display name for the mailbox.
35. In the **Mailbox Configuration** section, in the **Email** box, type the email address for the mailbox. For example, sales@company.com.
36. In the **Mailbox Configuration** section, in the **Password** box, type the password for the mailbox.
37. In the **Mailbox Configuration** section, in the **Confirm Password** box, retype the password for the mailbox.
38. In the **Incoming Mail Server** section, in the **Host Name** box, type the name of the server on which email messages are received in your network.
39. In the **Incoming Mail Server** section, from the **Protocol** list, select the communication protocol for the inbound email server. Select POP3 or IMAP. The default protocol is IMAP.

40. In the **Incoming Mail Server** section, from the **Encryption** list, select the encryption type to use. Select Cleartext, SSL, or TLS. The default encryption type is Cleartext.
41. In the **Incoming Mail Server** section, in the **Port** box, type the port number of the incoming email server. For the IMAP protocol, the default port number is 143. For the POP3 protocol, the default port number is 110.
42. In the **Outgoing Mail Server** section, in the **Host Name** box, type the name of the server from which email messages are sent. Your inbound and outbound mail servers can have the same name.
43. For outgoing email, the **Protocol** is SMTP.
44. In the **Outgoing Mail Server** section, from the **Encryption** list, select the encryption type to use. Select Cleartext, SSL, or TLS. The default encryption type is Cleartext.
45. In the **Outgoing Mail Server** section, in the **Port** box, type the port number of the outgoing email server. The default port number is 25.
46. In the **Outgoing Mail Server** section, from the **SMTP Authentication** list, select SMTP Authentication Disabled or Base 64 Encoded Authentication. The default authentication method is Base 64 Encoded Authentication.
47. Click **Next**.

Avaya Contact Center

Ready to Perform Ignition

AVAYA

The following is a summary of the data provided. Please review the information, if you wish to change any of the values click the Back button to return to the appropriate screen.

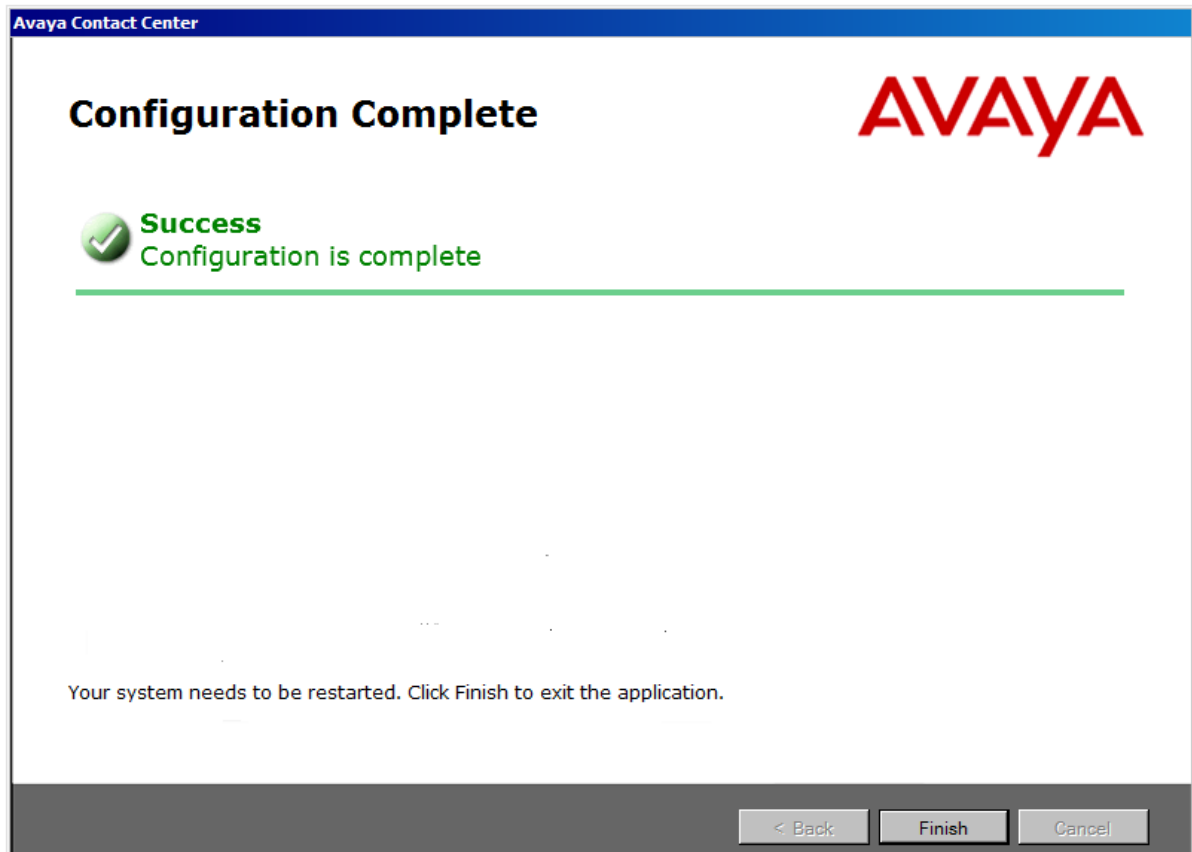
Field	Value
IP Office	
IP Office Server IP Address	10.134.35.87
IP Office Server Voice Port	5060
IP Office Server Voice Port Transport	TCP
IP Office SIP Domain Name	aaccdomain.com
IP Office SIP Extension	9000
IP Office Service User	Administrator
Sample Agent Starting ID	6001
Sample CDN (Route Point)	3000
Core	
Avaya Media Server IP Address	10.134.35.101
Avaya Media Server Port	5060
IP Office Contact Center Media Server Locale	en_us
Contact Center Subnet IP Address	10.134.35.100
Licensing	

Click Configure to begin the software configuration.

48. On the **Ready to Perform Ignition** screen, confirm your inputs, and click **Configure**.

The configuration utility begins to configure the Avaya Contact Center Select components.

49. When the Avaya Contact Center Select is configuration details are applied, the **Configuration Complete** screen appears.



50. Click **Finish**.
51. On the **Avaya Contact Center** message box, click **OK** to restart Avaya Contact Center Select.

Avaya Contact Center Select software is now installed on the virtual machine.

Using the Contact Center Dashboard

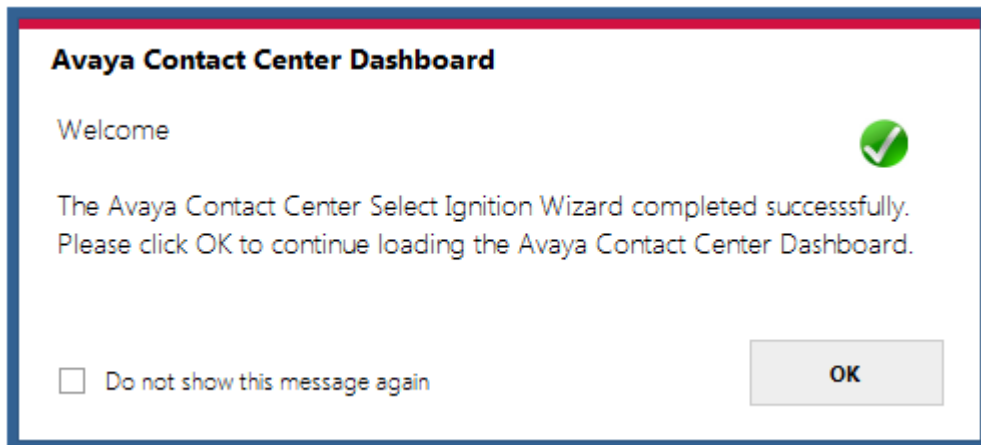
About this task

You can use the Contact Center Dashboard to access Contact Center system tools and diagnose system problems. The Contact Center Dashboard displays some Operating System and system details such as CPU type, network details, and Operating System activation status.

The Contact Center Dashboard launches automatically the first time the Contact Center server boots up. You can configure the Contact Center Dashboard to launch every time the server reboots and starts up.

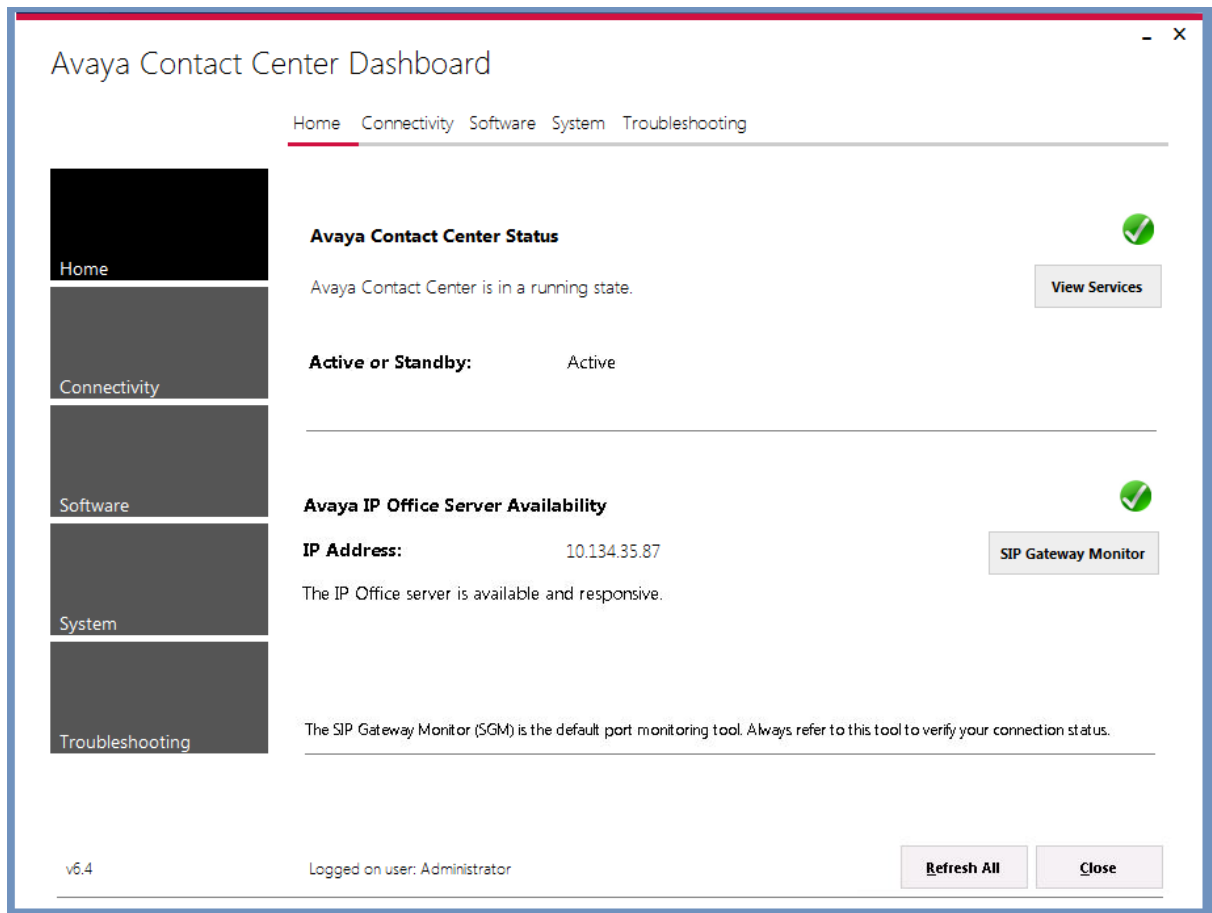
Procedure

1. The Contact Center Dashboard Welcome message box automatically appears the first time the server starts up.

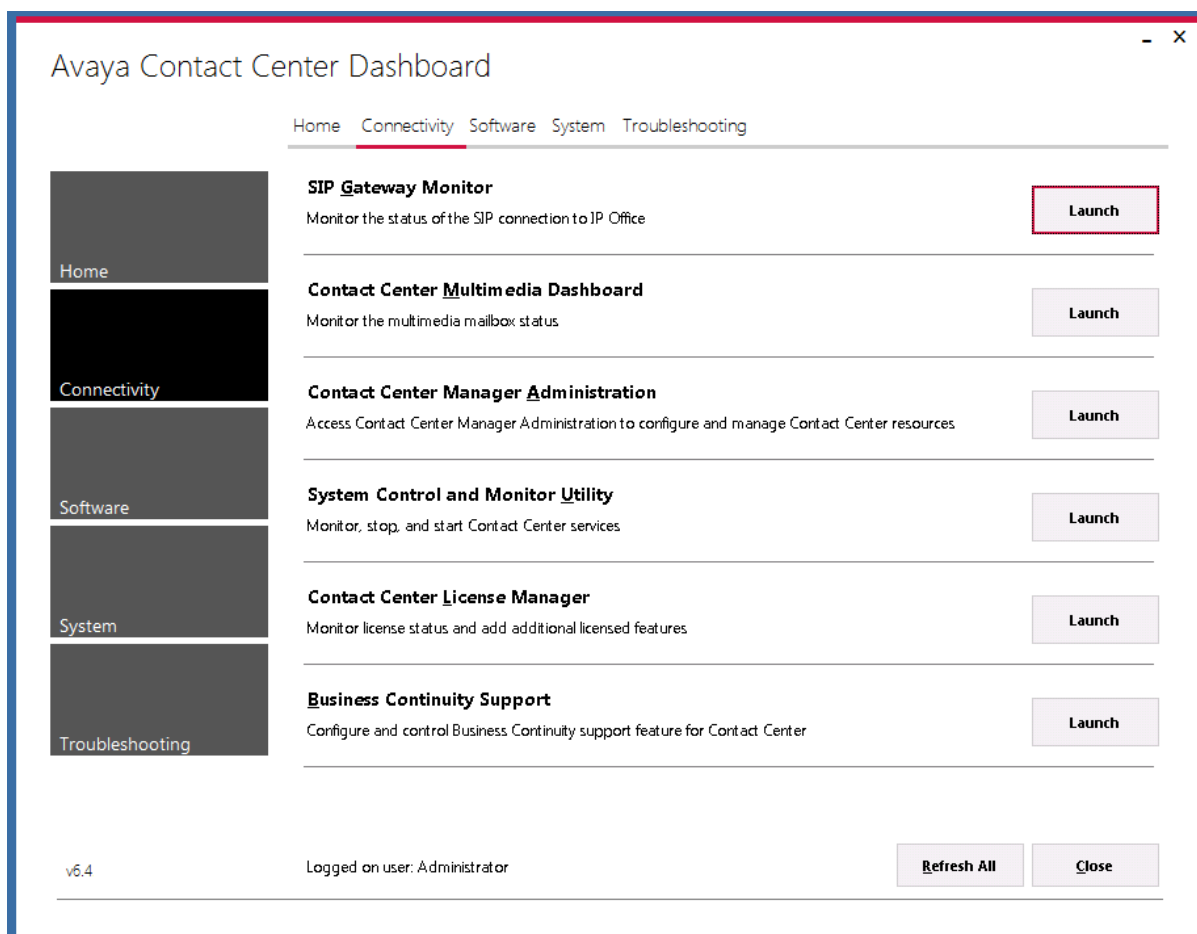


2. Click **OK**.

3. On the Contact Center Dashboard, select the **Home** tab.



4. Click **Refresh All** to refresh the Contact Center Dashboard status reports.
5. In the **Avaya Contact Center Status** section, click **View Services** to monitor the state of the Contact Center Windows services.
6. In the **Avaya IP Office Server Availability** section, click **SIP Gateway Monitor** to determine if Contact Center is communicating with IP Office.

7. Select the **Connectivity** tab.

8. In the **SIP Gateway Monitor** section, click **Launch** to monitor the status of the SIP connection to IP Office.
9. In the **Contact Center Multimedia Dashboard** section, click **Launch** to monitor the multimedia mailbox status.
10. In the **Contact Center Manager Administration** section, click **Launch** to access Contact Center Manager Administration to configure and manage Contact Center resources.
11. In the **System Control and Monitoring Utility** section, click **Launch** to monitor, stop, and start Contact Center services.
12. In the **Contact Center License Manager** section, click **Launch** to monitor license status and add additional licensed features.
13. Select **Business Continuity Support** to configure the Business Continuity feature.

14. Select the **Software** tab.

Avaya Contact Center Dashboard

Home Connectivity **Software** System Troubleshooting

Contact Center 6.4.0.0-30

Avaya Media Server IP: 7.6.0.639

Contact Center Services for Avaya Media Server 6.4.0.122

Ignition Status Success [View Log](#)

Avaya Contact Center Components

Avaya Contact Center line-up is: 6.4 Service Pack 14. Please ensure you have downloaded and installed all appropriate patches from <http://support.avaya.com> **Update Manager**

Third Party Software Information

All Third Party software required for your current Contact Center line-up is present.

Name	Platform	Version	Status
Java Runtime Environment 6	x86	1.6.0 Update 37	Installed
Java Runtime Environment 6	x64	1.6.0 Update 37	Installed
Apache Tomcat	x86	7.0.35	Installed
Visual C++ Redistributable 2010	x86	10.0.40219	Installed

v6.4. Logged on user: Administrator **Refresh All** **Close**

15. **Contact Center Version** displays the version of the Contact Center software installed on the server.
16. **Avaya Media Server** displays the version of Avaya Media Server software installed on the server.
17. **Contact Center Services for Avaya Media Server** displays the version of Contact Center Services for Avaya Media Server software installed on the server.
18. **Ignition Status** displays the Contact Center software installation status.
19. **Avaya Contact Center Components** displays the Contact Center software and patch line-up installed on the server.
20. **Third Party Software Information** displays the versions of the third-party software components used by Contact Center that are installed on the server.

21. Select the **System** tab.

Avaya Contact Center Dashboard

Home Connectivity Software **System** Troubleshooting

Machine Name ACCSONE

Windows Domain wae.avaya

Operating System Microsoft Windows Server 2008 R2 Standard

Windows Activation Status Activated

RAM 40 % 8192 MB

CPU 1 % 2.926GHz 64bit Intel(R) Xeon(R) CPU X5647 @ 2.93GHz

Network

Name	IP Address	MAC Address
Local Area Connection	10.134.38.1	005056A067

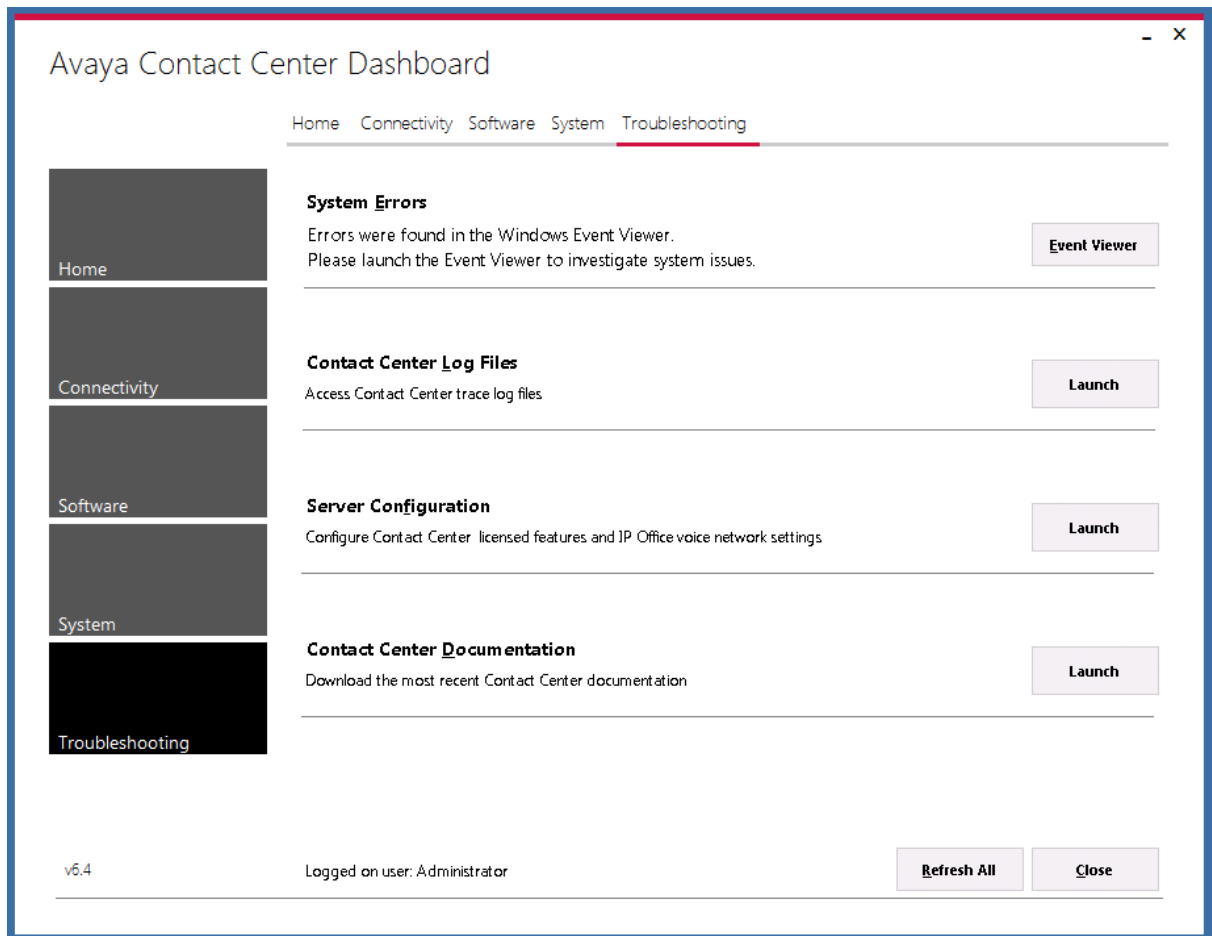
Hard Disks

Name	Volume Name	Total Size GB	Free Space GB	Used
C:\		79.9	11.7	86 %
D:\	APPLICATION	120.0	105.0	13 %
F:\	CCMSCCTDB	210.0	206.7	1 %
G:\	CCMMDB	300.0	299.8	0 %

v5.4. Logged on user: Administrator Refresh All Close

- 22. **Machine Name** displays the host name of the Contact Center server.
- 23. **Windows Domain** displays the name of the domain that the Contact Center server is in.
- 24. **Operating System** displays the Operating System version.
- 25. **Windows Activation Status** displays the Windows Operating System license and activation status.
- 26. **RAM** displays the amount of RAM memory in the server.
- 27. **CPU** displays the type of CPU in the server.
- 28. **Network** displays the networking details of the server: IP address and MAC address.
- 29. **Hard Disks** displays the number, size, and drive letter of the hard disk volumes in the server.

30. Select the **Troubleshooting** tab.



31. Select **System Errors** to access Contact Center events in the Microsoft Windows Event Viewer.
32. Select **Contact Center Log Files** to access Contact Center trace log files.
33. Select **Server Configuration** to configure Contact Center licensed features and IP Office voice network settings.
34. Select **Contact Center Documentation** to access and download the most recent Contact Center documentation from the Avaya support web site.

Configuring the virtual machine automatic startup settings

Before you begin

- Confirm that you have the proper level of VMware permissions to configure the automatic startup settings. If you do not have the proper level of VMware permissions, contact your system administrator.

About this task

When a vSphere ESXi host restarts or starts after a power failure, the virtual machines that are deployed on the host do not start automatically. All Avaya Contact Center Select virtual machines must be configured to start automatically when the vSphere ESXi host starts.

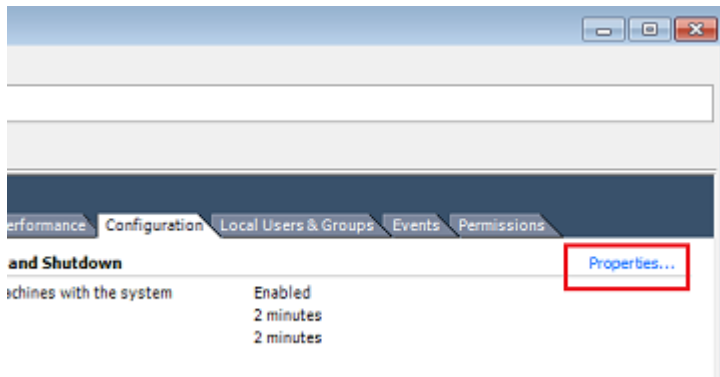
If the following virtual machines are deployed on the same ESXi host server, configure an automatic startup order for them:

1. Avaya WebLM
2. Avaya Media Server
3. Avaya Contact Center Select

If these virtual machines are deployed on separate ESXi host servers, configure them to start up automatically and ensure they are high in the automatic restart order on their respective ESXi host servers.

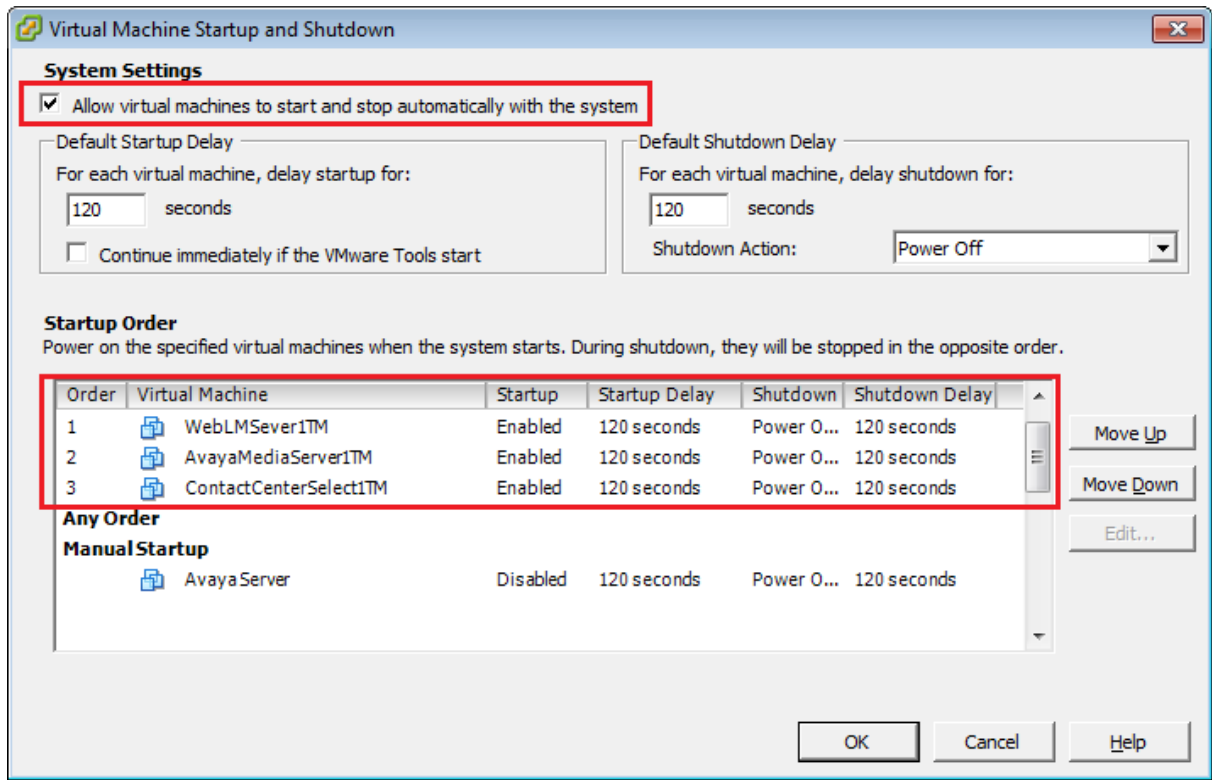
Procedure

1. In the vSphere Client inventory, select the host where the Avaya Contact Center Select virtual machines are located.
2. Click the **Configuration** tab.
3. In the **Software** section, click **Virtual Machine Startup/Shutdown**.
4. Click **Properties...** in the upper right corner of the screen.

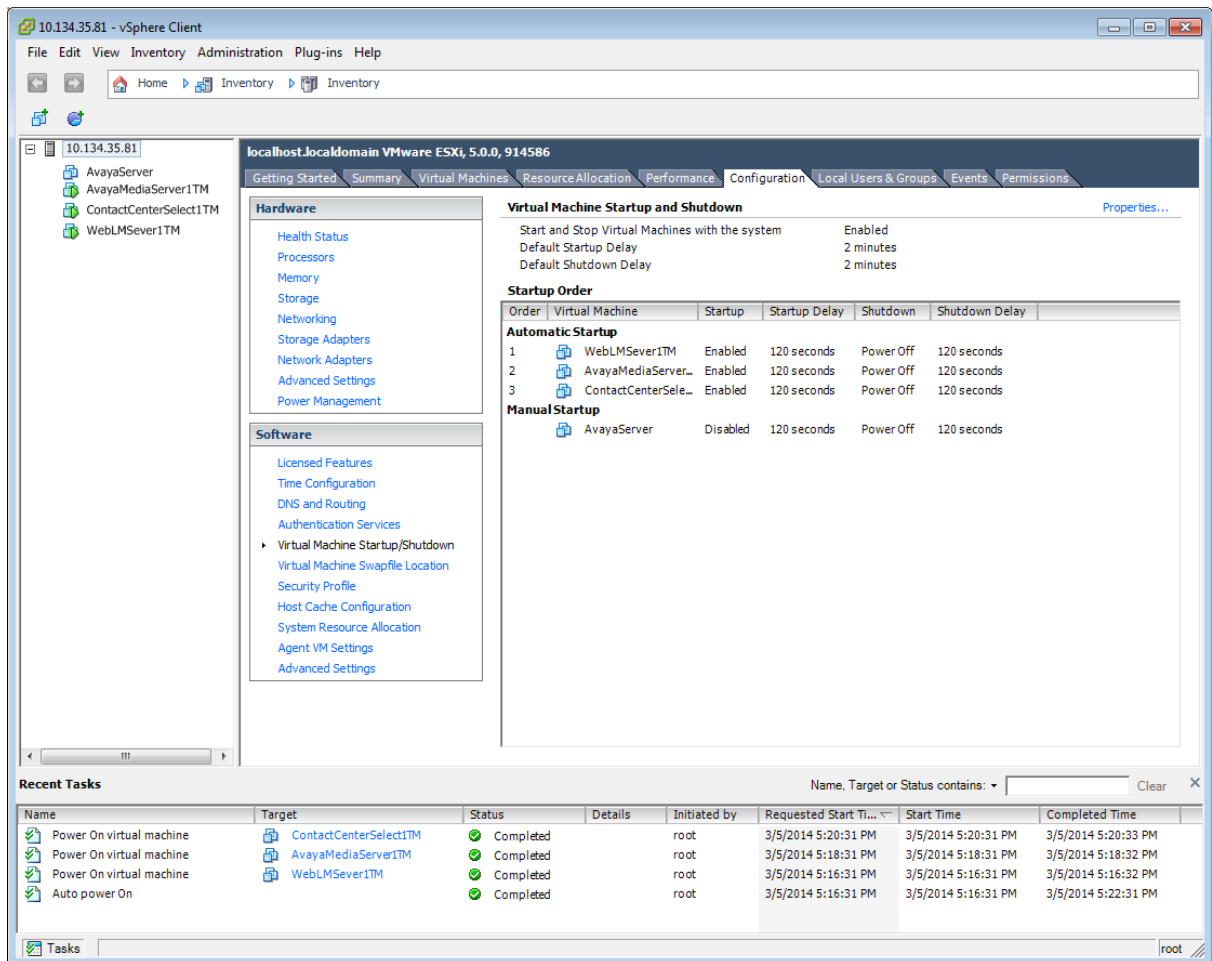


5. In the **System Settings** section, select **Allow virtual machines to start and stop automatically with the system**.
6. In the **Manual Startup** section, select the WebLM virtual machine and using the **Move Up** button, move it to the top of the **Startup Order** list.
7. In the **Manual Startup** section, select the Avaya Media Server virtual machine and using the **Move Up** button, move it to the second position on the **Startup Order** list.

8. In the **Manual Startup** section, select the Avaya Contact Center Select virtual machine and using the **Move Up** button, move it to the third position on the **Startup Order** list.



9. Click **OK**.



Adjusting the number of CPU Cores

About this task

You can adjust the number of CPU Cores for a virtual machine. A virtual machine cannot have more vCPUs than the maximum number of logical CPUs on the host virtual server platform. The number of logical CPUs is the number of physical processor cores.

To adjust the number of CPUs used by a virtual machine, you must power off the virtual machine.

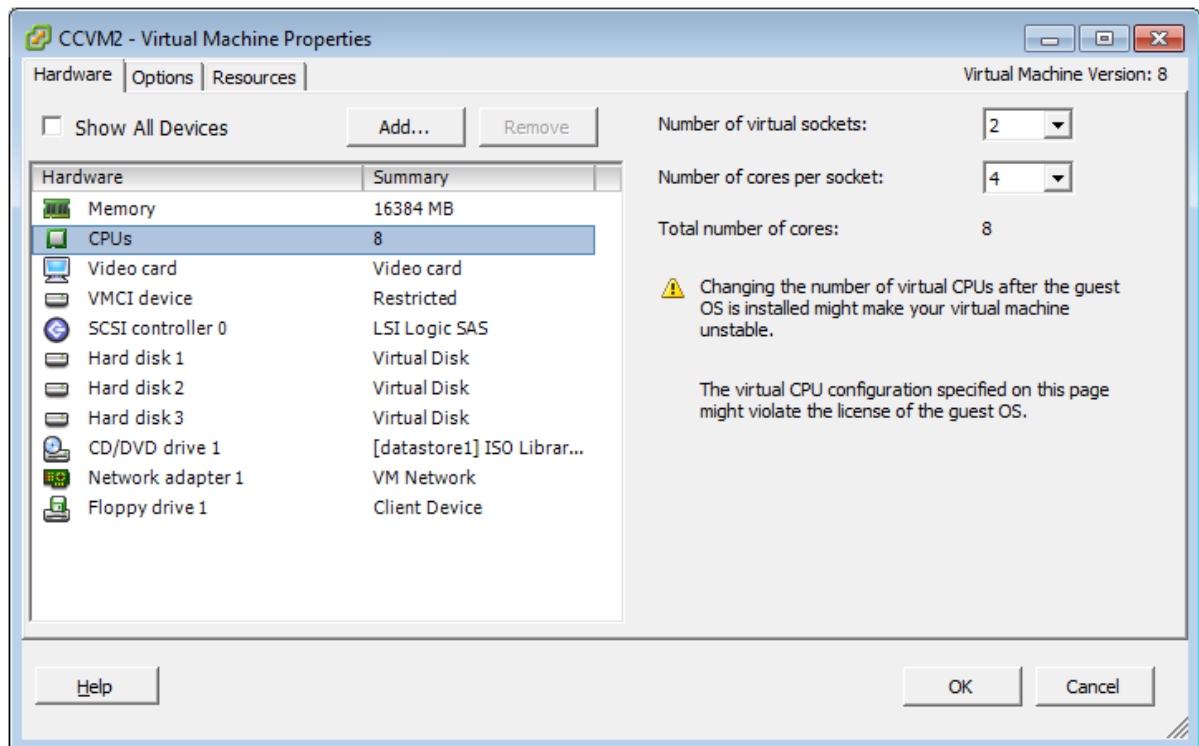
Before you begin

- Monitor the CPU performance of the virtual machine.

Procedure

1. Using the vSphere client, select the **Inventory** view.

2. Locate the virtual machine in the inventory navigation tree on the left. If not shown, select **View > Show VMs in Inventory**.
3. Click on the virtual machine.
4. Right-click on the virtual machine and select **Power > Power Off**.
Wait for the virtual machine to power off.
5. Right-click on the virtual machine and select **Edit Settings**.
6. Click the **Hardware** tab and select **CPUs**.
7. From the **Number of virtual sockets** list, select a value.
8. From the **Number of cores per sockets** list, select a value.



9. Click **OK**.
10. Right-click on the virtual machine and select **Power > Power On**.

Part 3: User Contact Recording configuration

Chapter 9: User Contact Recording Pause and Resume configuration

Avaya Contact Center Select supports IP Office Call Recording. IP Office Call Recording provides regulatory type recording, including the option to pause automatic recording for Payment Card Industry (PCI) security compliance. Avaya Contact Center Select supports the Call Recording pause and resume feature when it is initiated from a physical phone set. The Agent Desktop user interface does not have a pause button. Agents and agent supervisors must use their physical phone to pause and resume voice contact recording.

If your Avaya Contact Center Select agents and agent supervisors must be able to pause contact recording, add a Pause Recording button to each of their associated IP Office users.

Using IP Office Manager

Before you begin

- Install the IP Office Manager software on a client computer.
- Ensure the client computer can communicate with the IP Office server.

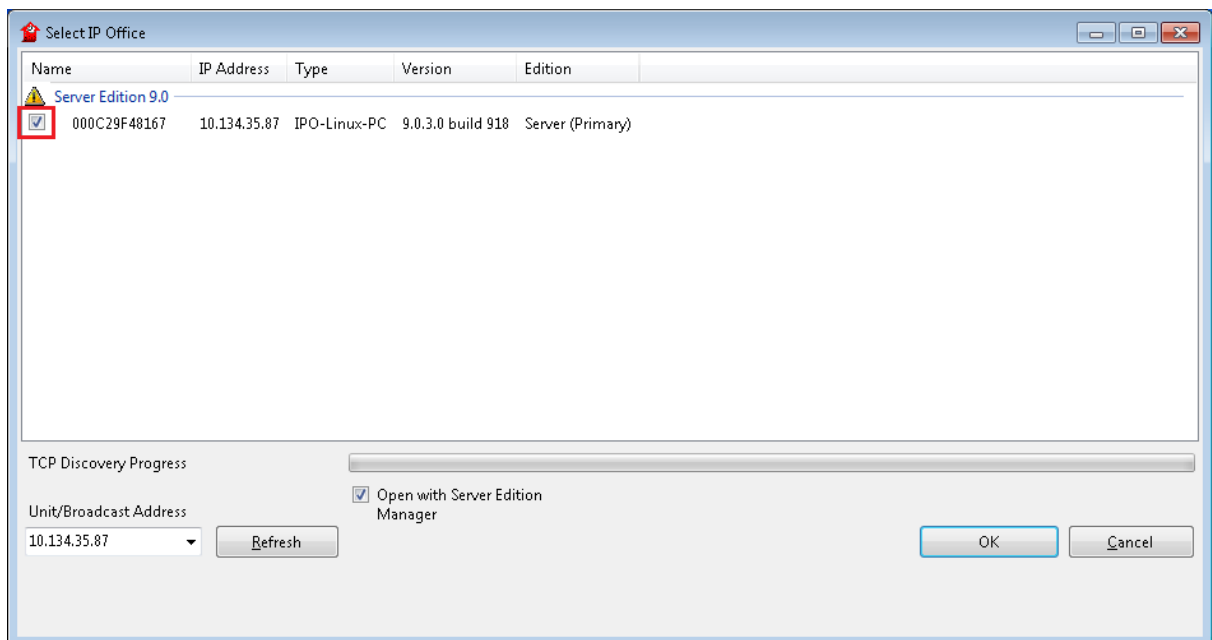
About this task

IP Office Manager is a component of the IP Office administration suite of applications. You use IP Office Manager to configure IP Office. IP Office Manager runs on a Windows computer and connects to the IP Office system using an Ethernet LAN connection.

IP Office Manager is an off-line editor. Use IP Office Manager to connect to your IP Office server and retrieve a local copy of the IP Office current configuration settings. You can then edit the local copy of the IP Office configuration and when you are ready, save your updated configuration data back to the IP Office server.

Procedure

1. On the client computer, select **Start > All Programs > IP Office > Manager**.
2. On the **Configuration Service User Login** message box, in the **Service User Name** box, type the user name. The default name is Administrator.
3. In the **Service User Password** box, type the user password. The default password is Administrator.
4. From the menu, select **File > Close Configuration**. This closes any open and potentially out-of-date configurations.
5. To retrieve the current (most recent) IP Office configuration settings, from the menu, select **File > Open Configuration**.
6. In the **Select IP Office** window:
 - If the required IP Office server is listed, use the check box to select your IP Office server from the list of available servers.
 - If the required IP Office server is not listed, in the **Unit/Broadcast Address** box type the IP address for your IP Office server. Click **Refresh** to perform a new search. The IP Office server then appears in the list of available servers. Use the check box to select your IP Office server from the list of available servers.



7. Click **OK**.
8. On the **Configuration Service User Login** message box, in the **Service User Name** box, type the user name. The default name is Administrator.
9. In the **Service User Password** box, type the user password. The default password is Administrator.

10. IP Office Manager opens and displays the current configuration data for your IP Office server.

Configuring a Pause Recording button for users

Before you begin

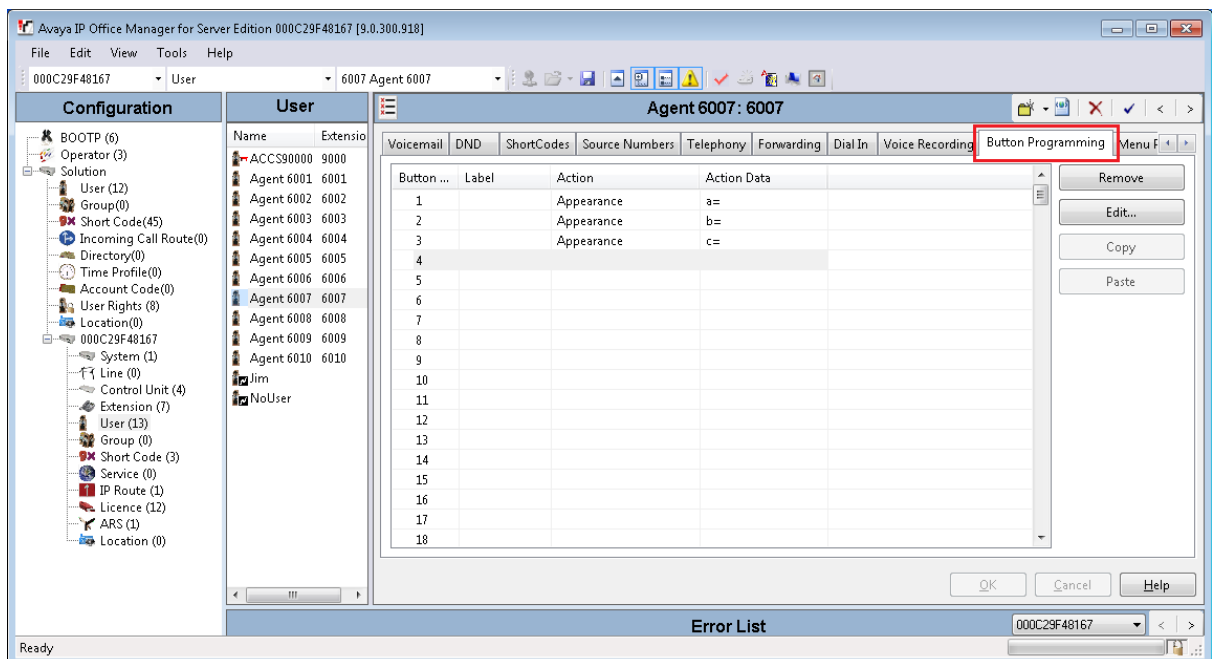
- Ensure the Contact Recorder application is installed, configured, and working on your IP Office. For more information about Contact Recorder, see *Installing Contact Recorder for IP Office* on the Avaya Support web site at <http://support.avaya.com>.

About this task

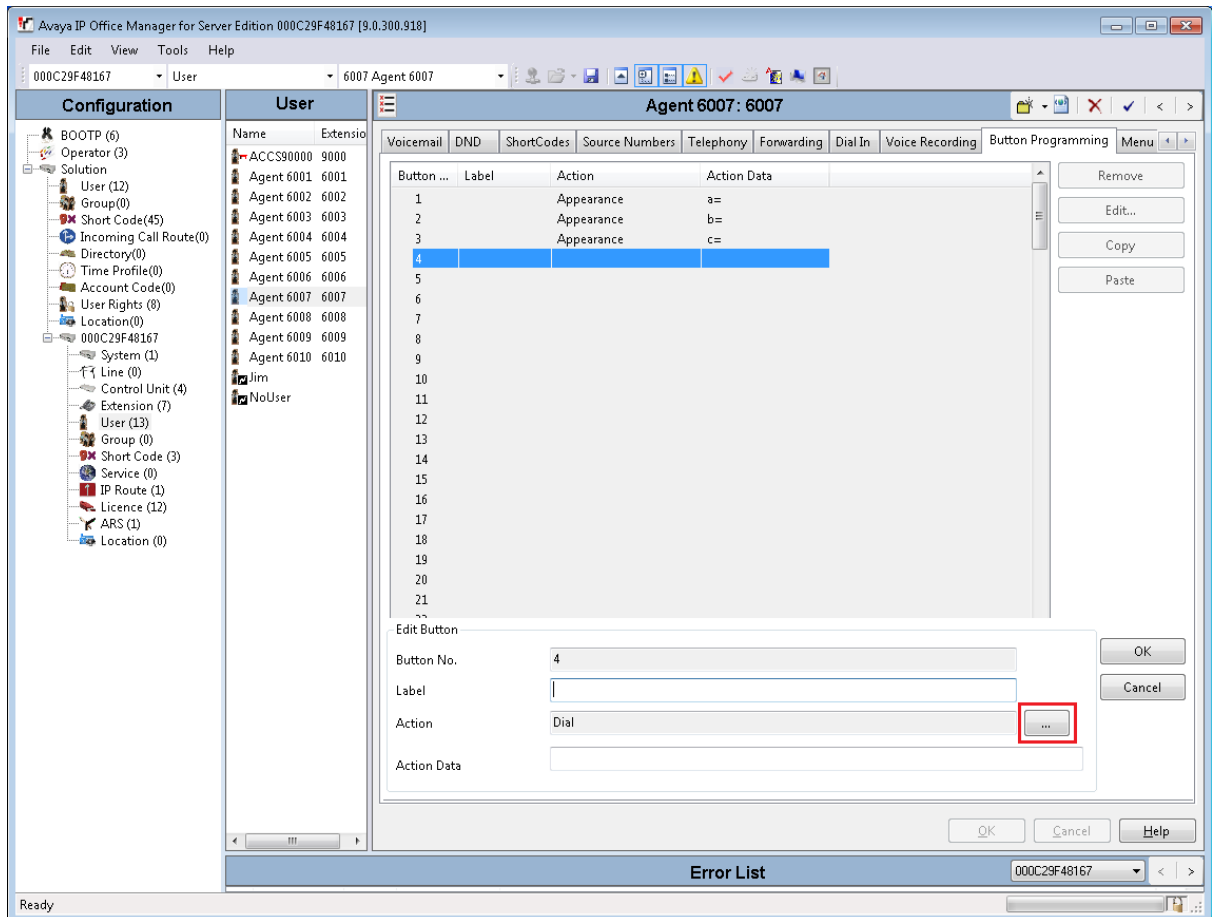
Configure a Pause Recording button for each Avaya Contact Center Select (agent and agent supervisor) user. The button status indicates when call recording is paused. Pressing the button again restarts call recording. The IP Office system can also automatically restart recording after a set delay.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, select your IP Office server.
3. In the left pane, select **User** and select the individual user.
4. In the right pane, select the **Button Programming** tab.

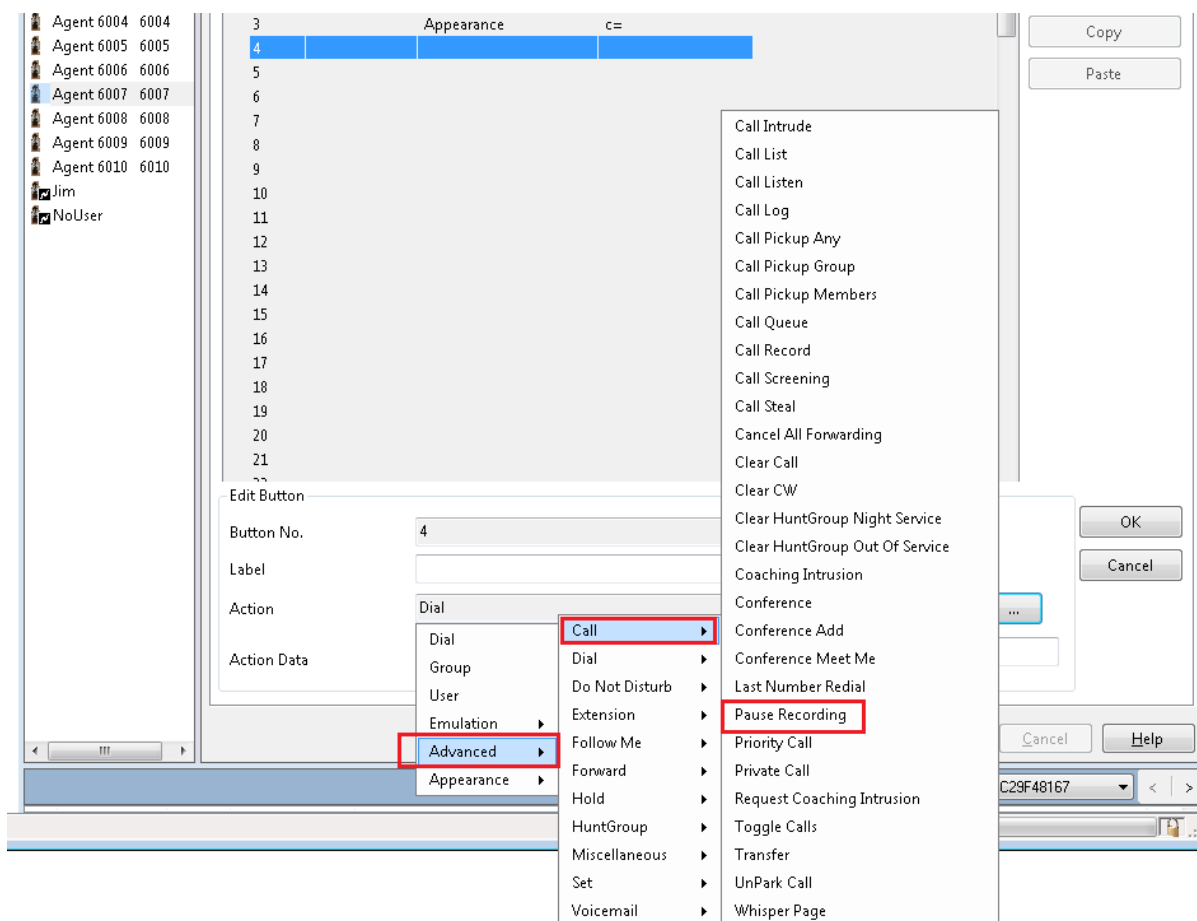


- From the user **Button** list, select the number of the button on which you want to program Pause Recording and click **Edit**.

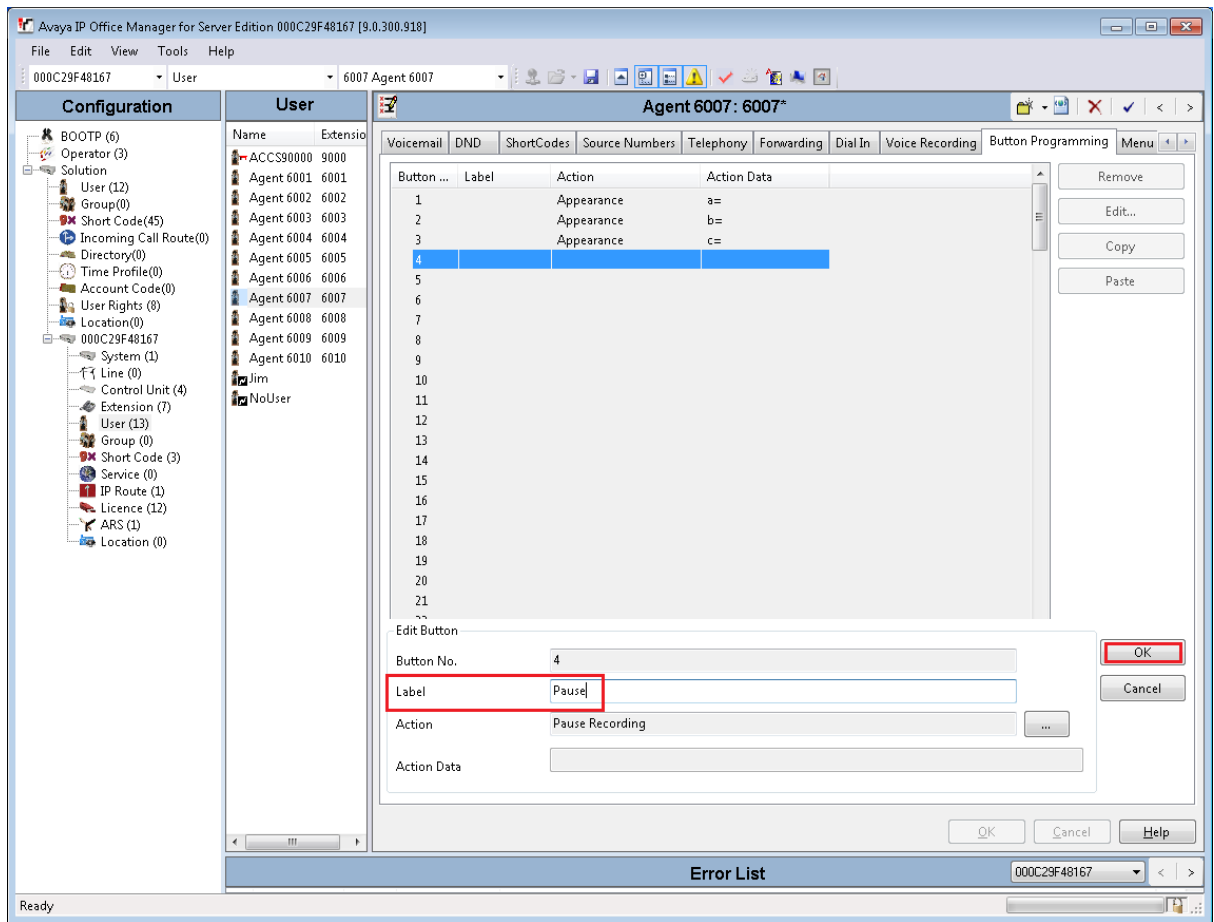


- In the **Edit Button** section, click the **Action** browse “...” button.

7. Select **Advanced** > **Call** > **Pause Recording**.

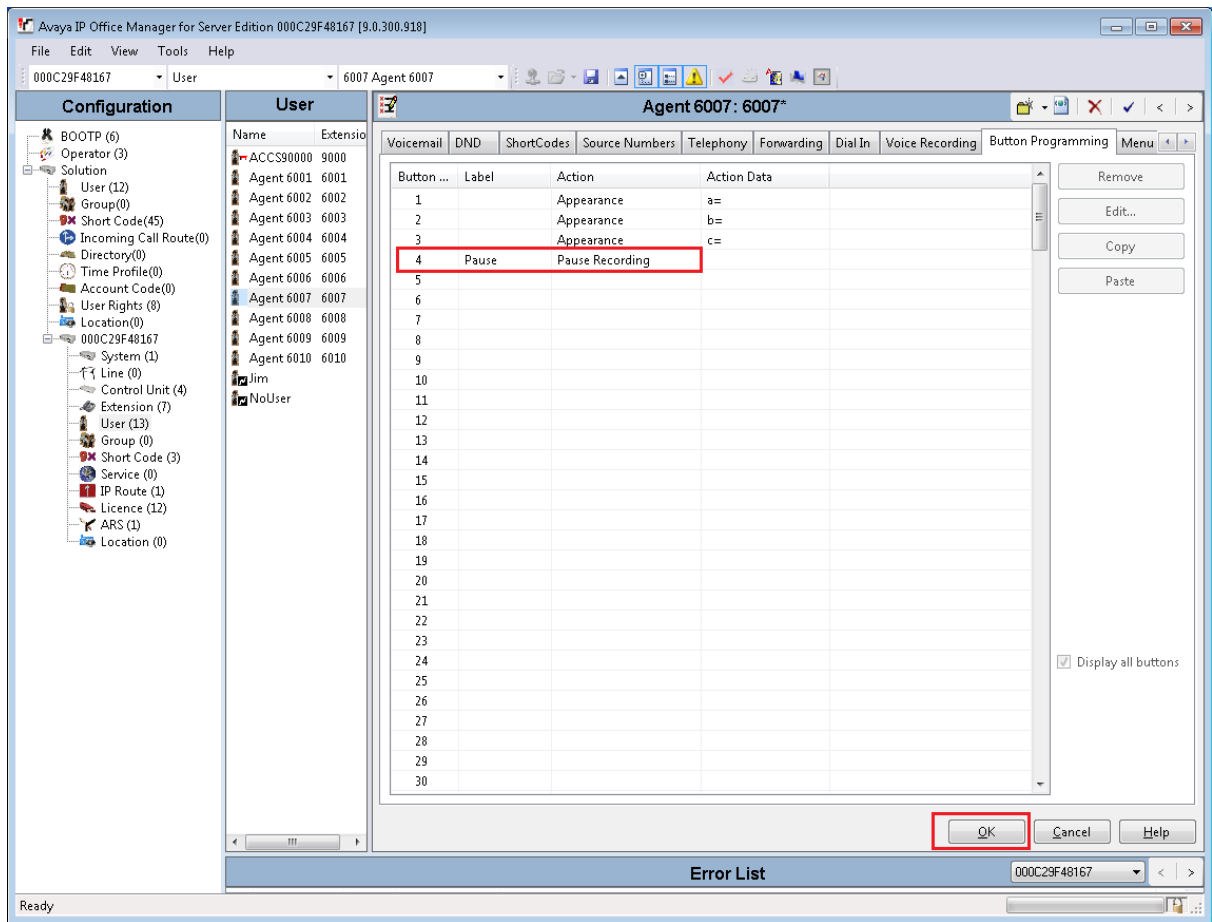


8. In the **Label** box, type a description to appear on the telephone display.



9. Click **OK**.

10. On the **Button Programming** tab, click **OK**.



11. Repeat this procedure for each IP Office user that represents an Avaya Contact Center Select agent or agent supervisor. Avaya recommends that you configure Pause Recording on the same button number for all users. Avaya recommends that you label each Pause Recording button with the same description.
12. Continue to add a Pause Recording button to each new IP Office user that represents a new Avaya Contact Center Select agent or agent supervisor.

Configuring the Contact Recording Auto Restart Delay

Before you begin

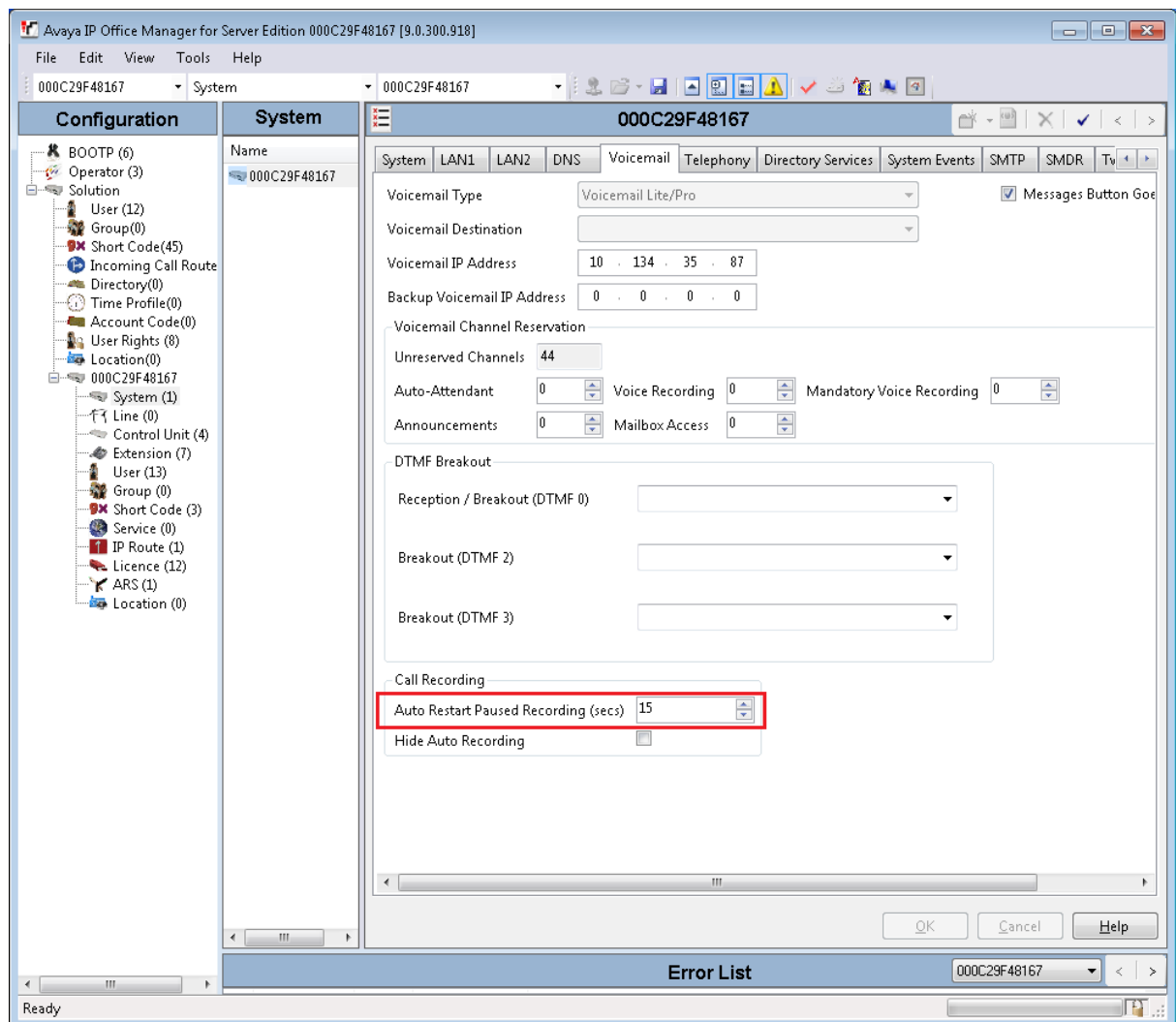
- Ensure the Contact Recorder application is installed, configured, and working on your IP Office. For more information about Contact Recorder, see *Installing Contact Recorder for IP Office* on the Avaya Support web site at <http://support.avaya.com>.

About this task

By default, Contact Recording automatically restarts a paused recording after 15 seconds. Configure the Auto Restart Paused Recording setting for your solution.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, select your IP Office server.
3. In the left pane, click **System**.
4. Click the **Voicemail** tab.
5. Set **Auto Restart Paused Recording** to the required time in seconds.



6. Click **OK**.

Saving the IP Office configuration data

Before you begin

- Install the IP Office Manager software on a client computer that can communicate with the IP Office server.

About this task

Use IP Office Manager to save your configuration changes to the IP Office server.

Procedure

1. In IP Office Manager, in the **Configuration** pane, select your IP Office server.
2. From the main IP Office Manager menu, select **File > Save Configuration**.
3. On the **Send Multiple Configurations** window, use the check box to select your IP Office server from the list.
4. Click **OK**.

IP Office Manager saves the offline configuration file to your IP Office server.

Part 4: First phone call and first email

Chapter 10: Agent Desktop

Agent Desktop is a single-interface client application used to interact with customers. You can use it to respond to customer contacts through a variety of media, including phone, outbound contacts, email, Web communication, fax, scanned documents, and Short Message Service (SMS) text messages.

Agent Desktop provides automation for customer responses to eliminate repetitive actions, such as typing a common response in an email message.

 Note:

Agents must use Agent Desktop to handle voice and multimedia contacts. Avaya Contact Center Select does not support telephone-only operations for voice agents.

Agent Desktop User Interface

Use Agent Desktop to handle voice, email, Web communications, SMS text message, voice mail, fax, and scanned documents contacts. Use Agent Desktop in the following situations:

- to handle voice contacts in a voice-only contact solution
- to handle voice contacts, email messages, or Web communications contacts in a voice and multimedia contact solution

This chapter describes the main user interface of the Agent Desktop application. There are three main sections to the Agent Desktop user interface:

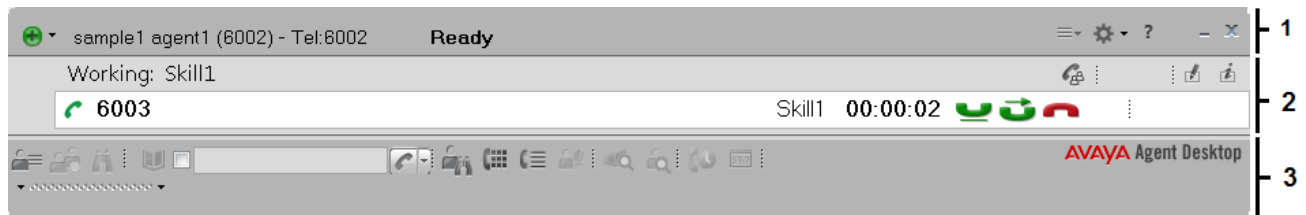


Figure 2: Example of Agent Desktop layout

1	Top bar on page 127
2	Work list window on page 128
3	Action bar on page 129

Agent Desktop also provides other controls and menus that are explained in the following chapters.

Work Item paradigm

The main Agent Desktop user interface is based on a work item paradigm. Each agent-to-customer interaction is a work item. Work items appear on the Agent Desktop work list.

The work list consists of work items and control buttons corresponding to the work item. The controls and functions change depending on the work list window behavior. When a new contact arrives, Agent Desktop adds the new contact as a work item to the work list.

Top bar

The Top bar appears at the top of the Agent Desktop window. The Top bar provides the system status and main controls to operate the Agent Desktop.



Figure 3: Example of Top bar layout

The agent status icon appears on the top left corner of the Agent Desktop Top bar. The Top bar also displays the agent status, agent name, agent login ID, and dialable number of the agent.

The Top bar has the following icons:

Table 1: Top bar icons

Icon	Name	Description
	Agent status	Select agent status.
	Terminal Actions	Access Emergency.

Icon	Name	Description
	User preferences	Access user preferences, open the Dashboard, and change work item display settings.
	Help	Access help information.

Use the Terminal Action menu to perform the following tasks:

Table 2: Terminal Action Menu

Command	Description
Emergency	Immediately connect with your supervisor in case of emergency.

Work list window

The work list window contains work items and control buttons corresponding to the work item. The controls and functions change depending on the information in the work list window. The top-right corner of the work list window has work item controls. These controls are common to all work items on the work list. When a new contact arrives, Agent Desktop adds the new contact as a work item to the work list.

The following figure shows the work list windows and controls.

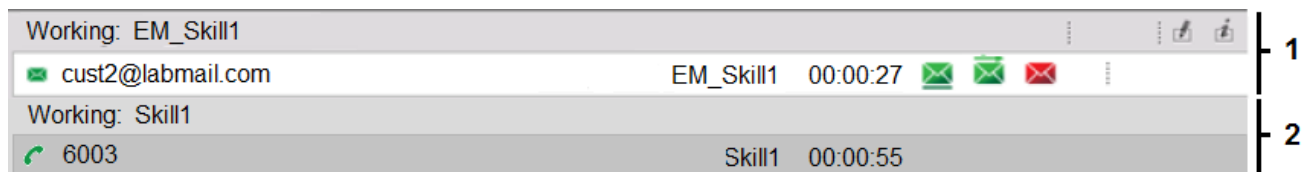


Figure 4: Example of work list layout

The illustrated work list shows two work items:

1	An email work item, at the top of the work list.
2	A voice call work item, at the bottom of the work list.

- A work item is a collection of interactions with a customer, another agent, a supervisor, or an expert.
- A work list is a collection of work items. When you receive a new contact, it is added to the work list so that you can monitor your current contacts. When you finish with the contact, or reject the contact, the work item is removed from the list.

Work item controls:

Each work item has a number of contact-related controls. These controls change depending on the work list window behavior and contact type.

Table 3: Examples of work item controls

Voice	Email	Name	Description
		Accept	Accept the work item.
		Release	Release or reject the work item.
		Hold	Place the work item on hold.
		Transfer	Transfer the work item contact.
		Conference/Join	Conference the work item. Or join two work items.
		Activity code	Set the work item activity code.
		Work item details	Read work items details.

Only appropriate controls are displayed on work items. Voice-related controls are displayed on voice work items. Email-related controls are displayed on email work items.

Action bar

The Action bar contains global controls to create a new work item, to search contacts, and to open secondary windows. The Action bar is located at the bottom of the Agent Desktop window.

**Figure 5: Example of Action bar layout**

Use the Action bar at the bottom of the main interface to make new contacts. New voice or email contacts are collectively called new work in the Work Item Paradigm.

Table 4: Action bar commands

Icon	Name	Description
	Customer Details	View customer details.
	Contacts Presence	Contact presence.
	Observe	Listen in or participate in agent-customer calls or chat sessions. (Used by agent-supervisors only)
	Phonebook	Contact agents through the LDAP agent contact directory.

Icon	Name	Description
	Originate Call	Start a new work item.
	Supervisor	Call your supervisor.
	DTMF	Generate Dual-tone Multi-frequency (DTMF) tones.
	Contact Search	Search for contacts.
	Customer Search	Search for customers.
	Schedule Callback	Schedule a callback.
	Agent Statistics	Display the agent statistics scroll bar.

Email User Interface

Use Agent Desktop to handle incoming email messages. You can also use Agent Desktop to create a new email message.

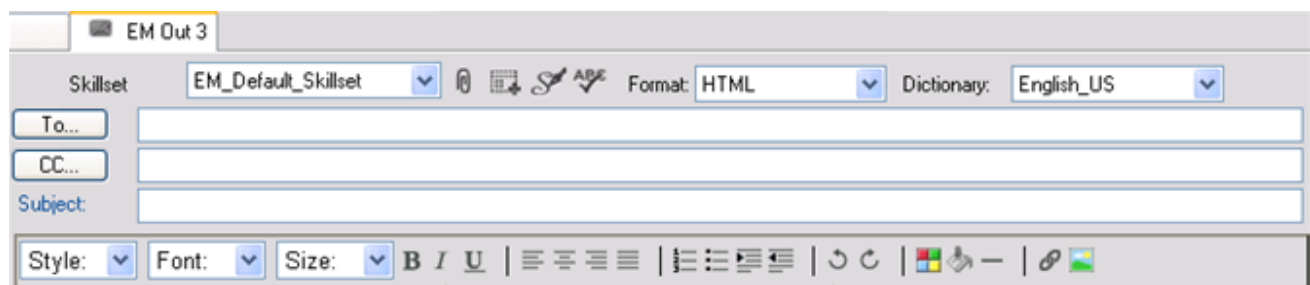


Figure 6: Example of email toolbar

The Agent Desktop email editor offers improved email editing, formatting feature buttons, and management in HTML format email messages.

The following table describes the email feature buttons:

Table 5: Email editing and formatting controls

Control	Name of the Control	Function
B	Bold	Bold the selected text
<i>I</i>	Italic	Italicize the selected text

Control	Name of the Control	Function
	Underline	Underline the selected text
	Left	Align text with left margin
	Center	Center text
	Right	Align text with right margin
	Justify	Justify text
	Numbers	Numbered list items
	Bullets	Bulleted list items
	Indent	Indent selected text
	Outdent	Outdent selected text
	Undo	Undo last change
	Redo	Redo the last change
	Color	Change color of selected text
	Link	Insert a hyperlink
	Image	Insert an inline image
	Insert a file	Insert an email attachment
	SpellCheck	Spell check the email message
	Insert Signature	Insert a signature to the email message
	Insert a Template	Email templates
	Rule	Adds a continuous line under the selected location
	Highlight	Highlights selected text with a color chosen from the color palette

Installing Agent Desktop software using ClickOnce

Before you begin

- Ensure the client computer meets the hardware and networking requirements for Agent Desktop software. For more information about Agent Desktop requirements, see *Avaya Contact Center Select Solution Description*.
- Ensure the client computer meets the Operating System requirements for Agent Desktop software. For more information about Agent Desktop requirements, see *Avaya Contact Center Select Solution Description*.

About this task

Install Agent Desktop software to handle Avaya Contact Center Select customer contacts.

Procedure

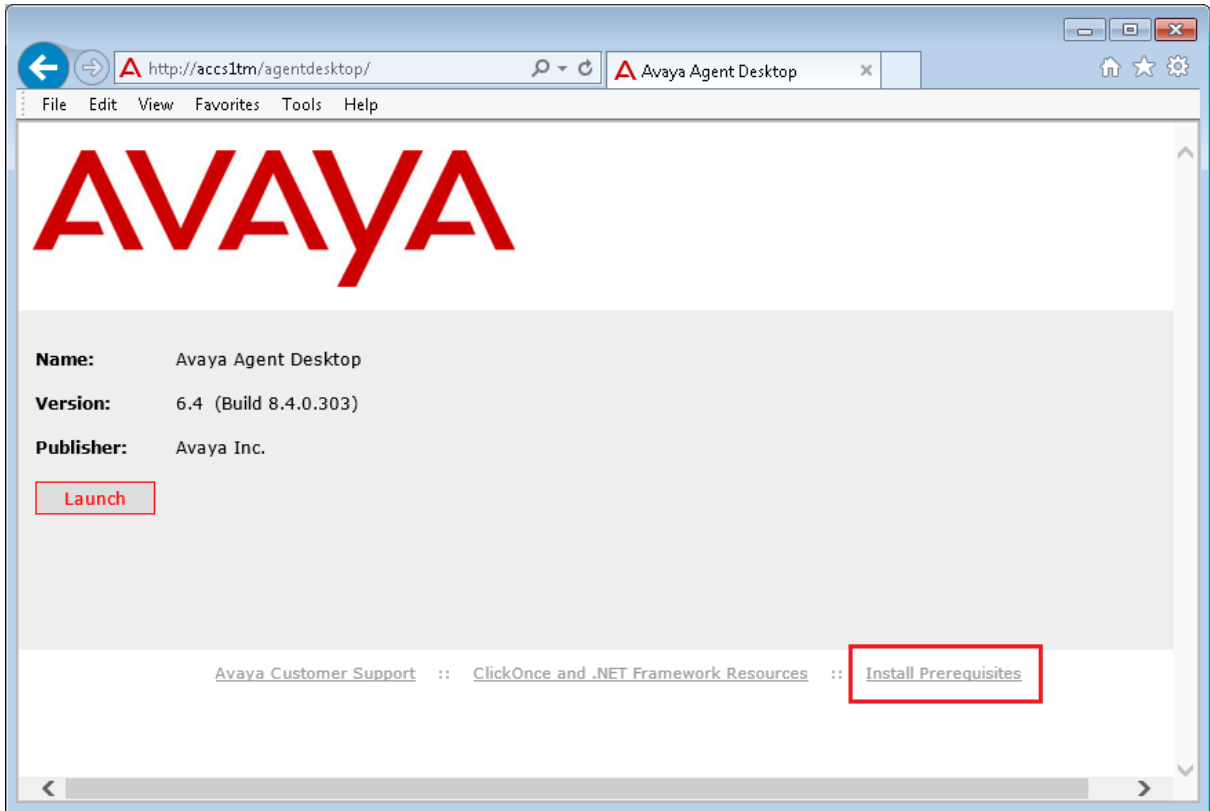
1. In Windows Explorer or Internet Explorer, type the HTTP address (URL) provided by your system administrator.

The URL format is:

`http://<ContactCenterServerName>/agentdesktop`

Where <ContactCenterServerName> is the Avaya Contact Center Select server name.

2. Click **Install Prerequisites** and follow the on screen instructions to install the .NET and operating system components required to run Agent Desktop software.



3. Click **Launch** to download and install the most recent version of Agent Desktop software.

Logging on to Agent Desktop

About this task

Log on to Agent Desktop and change into the ready state to handle customer contacts.

To support rapid and easy deployment, Avaya Contact Center Select provides some default users and supervisors.

The default sample supervisor “6001” can handle both voice contacts and email messages. To test both voice contacts and email messages, log on as supervisor “6001” and use the default password “Pw_6_001”.

The default sample user “6002” can handle only voice contacts. To test voice contacts, log on as user “6002” and use the default password “Pw_6_002”.

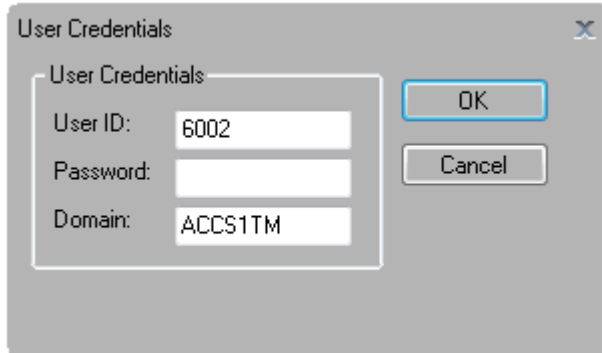
If you entered a different *Sample Agent Starting ID* when running the Avaya Contact Center Select Ignition Wizard, the logon IDs and passwords entered here are not the default sample values. If you use agent IDs that are different to the sample values, then the password format is *Pw_firstdigit_remainingdigits*. For example, if you entered a *Sample Agent Starting ID* of 7701, then your first supervisor “7701” has the password “Pw_7_701”. Agent “7702” has a password of “Pw_7_702”.

*** Note:**

You must be logged on to the desktop phone before you log on to Agent Desktop.

Procedure

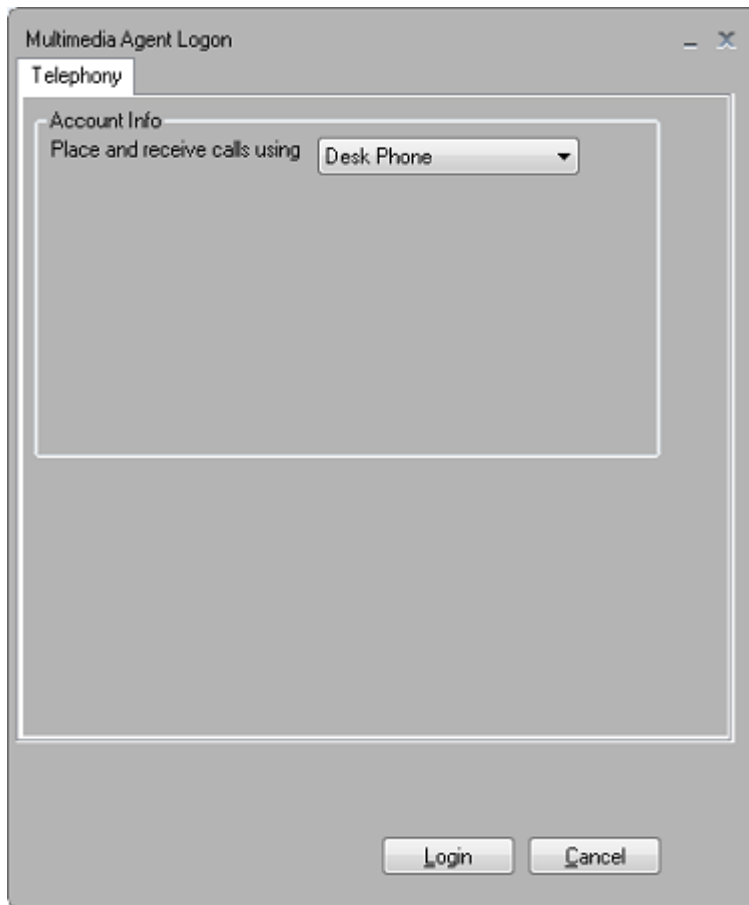
1. On the Agent Desktop client computer, click **Start > All Programs > Avaya > Avaya Aura Agent Desktop 6.0**.
2. On the **User Credentials** window, in the **User ID** box, type the agent user ID. For example, type 6002.



3. In the **Password** box, type the password for the agent. For example, type Pw_6_002.
4. In the **Domain** box, type the host name of the Avaya Contact Center Select server.
5. Click **OK**.
6. On the Agent Desktop Top bar, from the **Status** list, select **Login**.

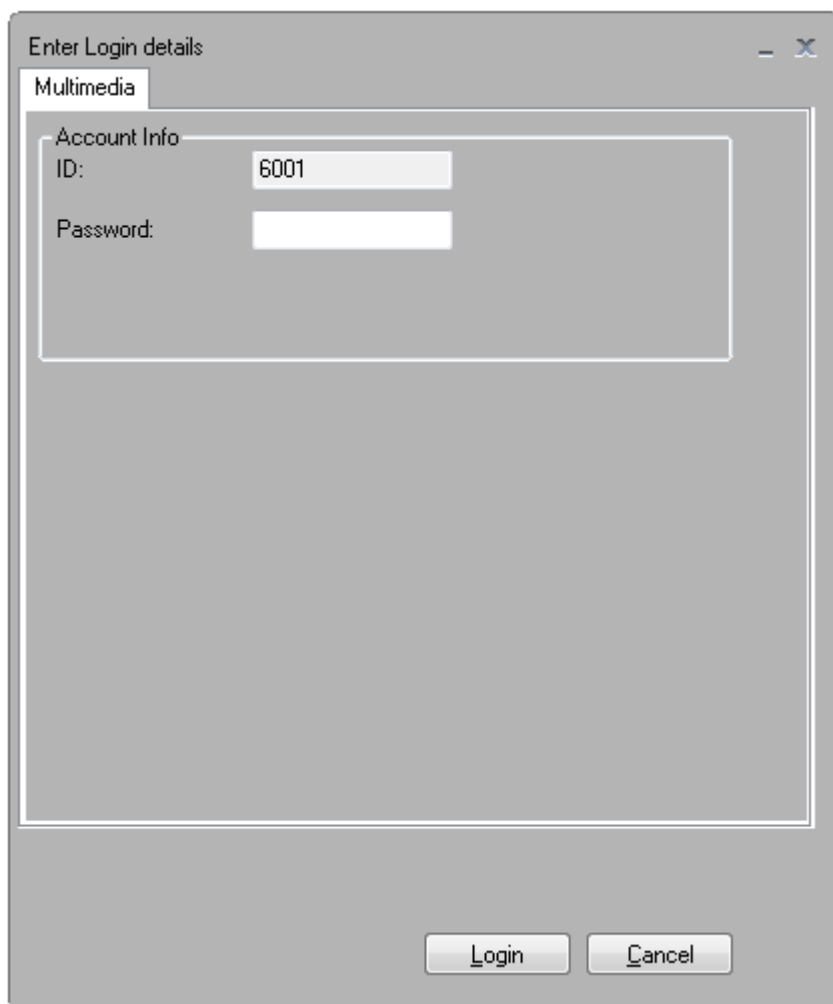


7. On the **Multimedia Agent Logon** window, click **Login**.



8. If the user is configured to handle multimedia contacts (such as email), on the **Multimedia** tab, type the user **ID** and **Password** and click **Login**. Use the same user ID and password as above.

For example:



9. The status icon changes to Not Ready.



Changing your status to Ready

About this task

Change your status to Ready when you are available to create and receive contacts.

Procedure

1. On the Agent Desktop Top bar menu, click the **Status** icon.
2. Select **Go Ready** to create or receive both Voice and Multimedia contacts.

The status icon changes to green.



Making a test phone call to the contact center

Before you begin

- Ensure an Avaya Contact Center Select agent is logged on to Agent Desktop and is in the ready state.

About this task

Make a test phone call to the Avaya Contact Center Select CDN (Route Point).

Procedure

1. Using an IP Office phone, dial the Avaya Contact Center Select CDN (Route Point) phone number. For example, dial 3000.
2. Listen for a ringback tone.
3. Listen for the “Welcome to the Contact Center” announcement.
4. Listen for the following voice prompt menu:
 - “Press 1 to speak to an agent at the help desk.”
 - “Press 2 to speak to an agent in the support center.”
 - “Press 3 to Enter your pin number or any eight digits of your choosing.”
 - “Press 4 to leave a voice mail.”
 - “Press * to repeat this menu.”
5. To make a test phone call and speak with an agent, press button 1 on your phone.
6. Listen for another ringback tone as your call is routed to an available Avaya Contact Center Select agent.
7. Wait for the call to be answered by an agent.

Accepting a call

Before you begin

- Ensure that you have set your status to **Go Ready**.
- Ensure that you are assigned to a skillset for handling telephone calls.

About this task

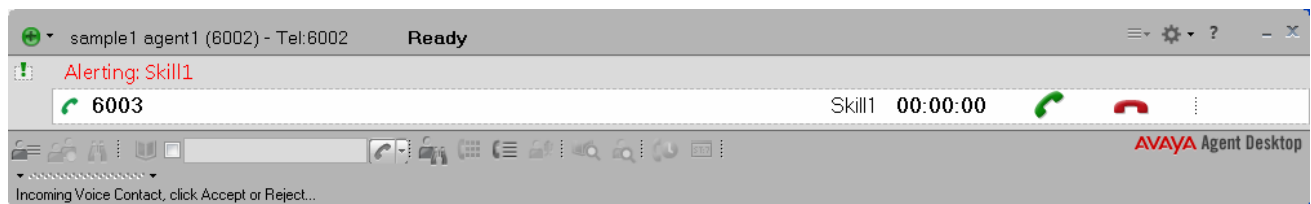
Accept and work with telephone calls. The relevant work item controls become active and the call timer appears on the work item.

If your administrator has configured your Contact Center to run in the Call Force Delay mode, you must handle all contacts presented to you.

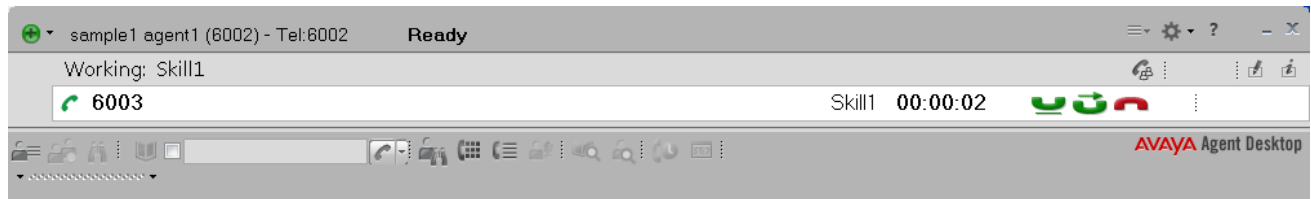
Procedure

On the Agent Desktop, select the new alerting work item and click the **Accept** work item control.

Example of an alerting CDN call:



Example of an answered CDN call:



The agent can now speak with the customer.

Entering an Activity code

About this task

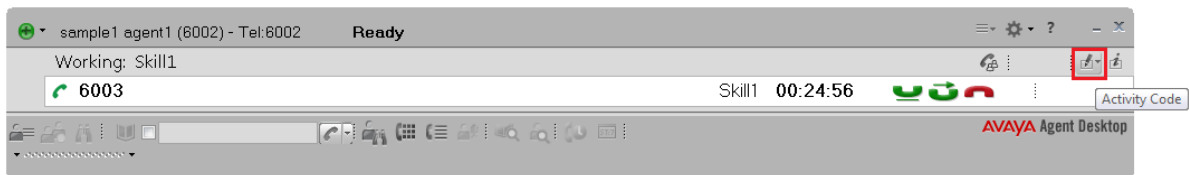
You can enter one or more Activity codes during calls by using the Agent Desktop Top bar activity inline command. Activity codes provide a method to track the time that agents spend on various types of calls. For example, you can enter a Sales activity code in Agent Desktop during a sales-related call.

Your supervisor or system administrator configures Activity codes. Administrators define Activity codes in Contact Center Manager Server. Activity codes can be alphanumeric. Agent Desktop displays the Activity codes list.

Agent Desktop displays the **Activity Code** box on the work item based on your Contact Center configuration. Administrators can configure activity codes that correspond to a contact type and a skillset. Therefore, Activity codes are filtered on a contact type and skillset basis. For example, if you are handling email contacts, Agent Desktop populates the **Activity Code** list with activity codes that correspond to the email contact type and skillset.

Procedure

1. Select the work item.
2. Click the **Activity Code** work item inline command.
3. From the **Select or type an Activity Code** drop-down list, select or type the activity code.



Ending a call

About this task

End a call when a call is completed. If your status was Ready before the call, your status is automatically set to Ready, when you terminate the call. If you require time to perform call wrap-up tasks, before you accept another call, select **Set ACW Code** and enter the After Call Work Item (ACW) code in the **Code** field of the Top bar. If you require to change your status to Not Ready and enter a Not Ready Reason Code in the **Code** field of the Top bar. The administrator defines Not Ready Reason and ACW codes.

Procedure

On the work item, click **Release**.

Making a call

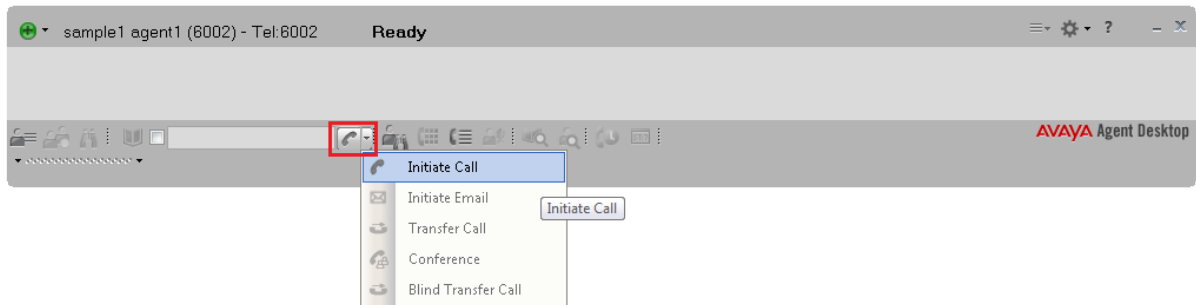
About this task

Make a call using Agent Desktop. Ensure that you follow the steps based on the type of phone number you want to call:

- the default phone number
- a new external phone number
- a new internal phone number

Procedure

1. On the Agent Desktop Action bar menu, click **Initiate Call**.



2. In the **Initiate Call** text box, enter the phone number to dial.
3. Click **Initiate Call** again.

The phone number is dialed. A new work item is added to the work list and the call timer on the work item starts to increment.

4. Click **Release** when you complete the call.

Sending a test email message to the contact center

Before you begin

- Know the name of a mailbox monitored by Avaya Contact Center Select.

About this task

Send a test email message to Avaya Contact Center Select.

Procedure

1. Create an email message.
2. Send the email message to the mailbox monitored by Avaya Contact Center Select.
3. Avaya Contact Center Select processes the email. You might receive an automated acknowledgement of your email before an Avaya Contact Center Select agents responds.

Accepting an incoming email message

About this task

Accept an incoming email message, when you are ready to receive the customer's email, display customer details and begin contact with a customer. The Agent Desktop displays the customer

details and the call timer appears on the work item. The new incoming email message is presented as a new work item in the Work List window.

Procedure

On the Agent Desktop, click **Accept**.

The email message opens in the E-mail Display panel.

The customer details associated with the email message appears in the bottom left-hand corner of the Customer Details panel.

Replying to an email message

Before you begin

- Accept an email contact.

About this task

Reply to an email message when a customer sends an email message to the Contact Center requesting a response. Create a response to a customer in the same format as the original request.

You can use several features (present in the following list) in the Agent Desktop interface to create your email response in HTML or plain text:

- Auto suggestions
- the address book
- one or more response templates
- an automatic signature
- an attached file
- the spelling checker

You can also add a comment to an email message in the **Agent Note** box as a reference for later communications with the customer. The customer does not see the information present in the **Agent Note** box.

Procedure

1. On the Agent Desktop, in the Email window, click **Reply**.
2. In the E-mail Response window, accept the default **To** email address. The default email address is the address from which the message was sent.

Or

Click **To** to add a email address of the customer, which is other than the default email address.

Or

Click **Cc** to add other email addresses from the corporate address book or multimedia database.

3. In the **Subject** box, either accept the subject currently displayed or edit the subject.
4. Add text to the reply using one or both of the following methods:
 - Type the message text.
 - Add a template response.
5. If you use the HTML format for creating the email message, and you want to make the text bold, underline, or italics, select the text, and click the appropriate button to apply formatting.
You cannot format a plain text email message.
6. To change the text size, select the text and click the up arrow to increase the font size, or click the down arrow to decrease the font size.
7. To perform a spell check, click the **SpellCheck** icon.
8. To insert an automatic signature to the email message, click the **Insert Signature** icon.
9. To add an attachment to the email response, click **Insert a file**.
10. In the **Agent Note** box, type additional information about the contact or the customer, if required.
Only agents and supervisors can view the information in the **Agent Note** box.
11. Click **Send**.
12. Close the contact.
If required, select a reason for closing the contact.

Logging off from Agent Desktop

Before you begin

- Ensure that you do not have a contact open. If a contact is open, you must close the contacts before you log off of the application.

About this task

Log off from Agent Desktop when you are ready to exit the application.

Procedure

1. On the Agent Desktop Top bar menu, click the **Status** icon.
2. Click **Log Out**.

Agent Desktop logs you off. The status icon changes to red and the Top bar displays the Logged Out status.

Part 5: Maintenance

Chapter 11: Maintenance procedures

This section describes how to maintain the Avaya Contact Center Select software and server. You must maintain Avaya Contact Center Select to protect against data loss and to ensure that you are using the most recent software.

Database maintenance

Perform an immediate backup of the Avaya Contact Center Select databases to save the current data. It is important to complete this procedure after you complete your installation or when any significant change occurs in the database, so that you can restore the database easily. Perform backups during low traffic periods. Avaya Contact Center Select services are not shut down during backups. Back up the databases to a secure network location. Schedule regular backups of the Avaya Contact Center Select databases to ensure resiliency against media failure or data loss.

Contact Center Software patches

Apply the most recent Avaya Contact Center Select patches to ensure that you have the most recent version of the application software and to resolve software issues.

Install the latest operating system service packs that are supported for Avaya Contact Center Select. You must download the latest supported operating system service pack from the Avaya hotfixes list to ensure your Avaya Contact Center Select server software functions correctly with the supported operating system patches.

Adding the 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. 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.

Procedure

1. Log on to the Avaya Contact Center Select 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 the domain administrator **User name** and **Password**.
10. Click **OK**.
11. Restart the server when you are prompted to do so.

Backing up the administration data

Before you begin

- Ensure that you have write privileges on the server where you want to store the administration data you are backing up.

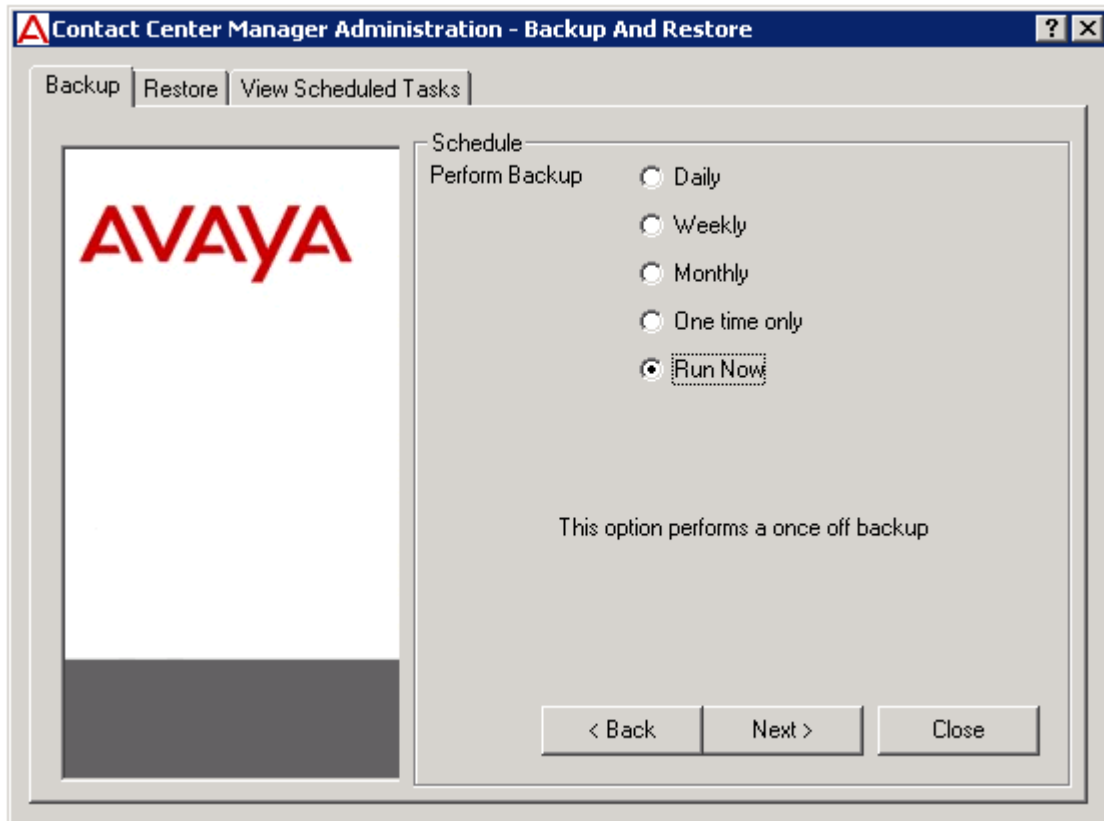
About this task

Back up the administration data to a folder to create a snapshot of the administrative data files. You can create the folder on another server.

Procedure

1. On the Avaya Contact Center Select server, click **Start > All Programs > Avaya > Contact Center > Manager Administration > Configuration**.
2. In the left pane of the Configuration window, expand **Avaya > Applications**.
3. In the Avaya Applications Configuration window, select **Backup & Restore**.
4. In the right-hand pane, click **Backup & Restore**.

5. In the Contact Center Manager Administration- Backup and Restore utility, select the **Backup** tab.
6. Select the **Drive** or specify a **Network Location** where you want to store the backup.
7. Click **Next**.
8. On the Schedule page, select the frequency and start time for the backup schedule, or select **Run Now** for immediate backups.



9. Click **Next**.
10. On the User Account with Administrative Privileges page, type a valid administrator user name and password for the server on which you want to store the backup.

*** Note:**

The default option is **this computer**. Avaya recommends that you store your backups in a network location.

11. Click **Finish**.
12. Click **Close**.

All backups are saved as `CCMDataBackup<BackupDateTime>.package`.

Backing up the Contact Center databases

About this task

Perform an immediate backup of the Contact Center server databases to save the current data. Perform a scheduled backup to maintain snapshots of data for emergency purposes. For more information about scheduled backups, see [Scheduling a backup of the Contact Center server databases](#) on page 148.

It is important to complete this procedure after you complete your installation or when any significant change occurs in the database, so that you can restore the database easily if required.

Perform backups during low traffic volume periods.

Procedure

1. On the Contact Center server, choose **Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance**.
2. In the Contact Center Database Maintenance window, in the Main Menu pane, click **Backup Locations**.
3. In the right pane, click **Create**.
4. From the **Drive Letter** list, select the network drive on which to store the Contact Center database.
5. In the **UNC Path** box, type the location to store the backup, in the format \\Computer Name\Folder\Backup Location.
6. In the **Username** box, type the user name used to log on to the computer specified in the UNC Path box. The user name is in the format Computer Name\Account Name.
7. In the **Password** box, type the user password.
8. Click **OK**.
9. In the Contact Center Database Maintenance window, in the Main Menu pane, click **Immediate Backup**.
10. In the **Media Type** section, select **Network Location**.
11. From the **Backup Location** list, select the network drive on which to store the backup.
12. Click **Backup**.
13. Click **Yes**, to continue with the backup.
The database is backed-up.
14. Click **Exit**.

Creating a backup location for scheduled backups

Before you begin

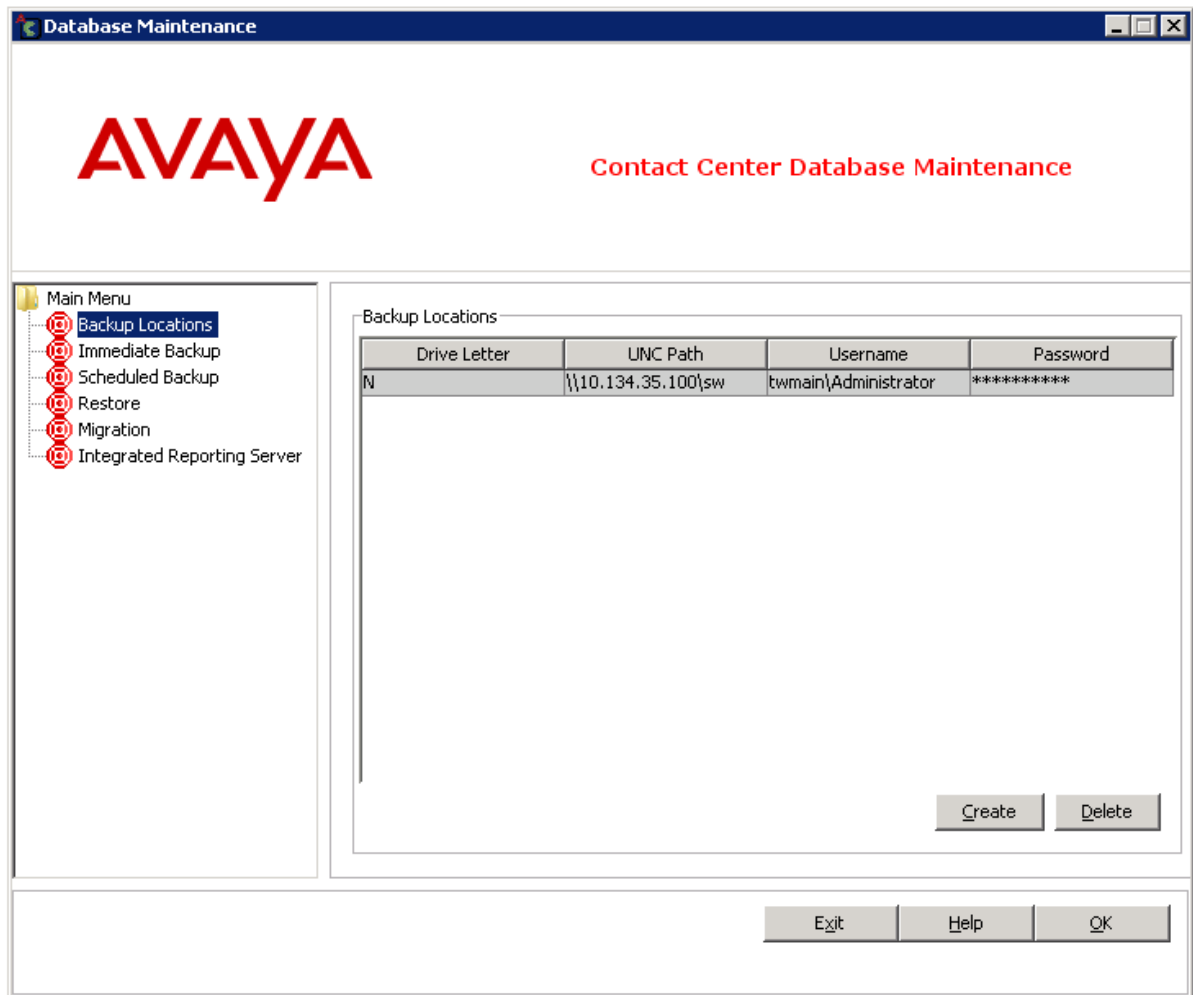
- Ensure that you log on with a user account with full permissions to access the location where you store the database backups.

About this task

Create a backup location on your network with the correct access permissions to ensure that you have a designated location for the scheduled backups.

Procedure

1. Click **Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance**.
2. In the Database Maintenance dialog box, click **Backup Locations**.
3. In the right pane, click **Create**.
4. From the **Drive Letter** list, select a drive letter.
5. In the **UNC Path** text box, type the location to which to backup the database.
6. In the **Username** box, type the user name used to log on to the server specified in the UNC Path box in the format Computer Name\Account Name.
7. In the **Password** box, type the Windows password.
8. Click **OK**.



Scheduling a backup of the Contact Center server databases

Before you begin

- Create a backup location. For more information, see [Creating a backup location for scheduled backups](#) on page 147.

About this task

Schedule a backup of the Contact Center server databases to save the data regularly. Perform a scheduled backup to maintain snapshots of data for emergency purposes.

Perform backups during low traffic volume periods.

Procedure

1. Click **Start > All Programs > Avaya > Contact Center > Database Utilities > Database Maintenance**.
2. In the Database Maintenance dialog box, in the left pane, click **Scheduled Backup**.
3. In the right pane, click **Create**.
4. Under **General Properties**, in the **Name** box, type a name for the scheduled backup.
5. From the **Media Type** list, select **Network Location**.
6. In the **Start Date** box, type the date on which to begin scheduled backups.
OR
Click the calendar icon and select a date on which to begin scheduled backups.
7. In the **Start Time** box, select the time to start the backup.
8. From the **Backup Location** list, select a drive to store the backup.
9. From the **Frequency** list, select the frequency of the backup.
10. Click **OK**.
11. Click **Exit** to close the Database Maintenance utility.

Downloading the latest product documentation

About this task

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

Procedure

1. Log on to the Avaya Web site at <http://support.avaya.com>.
2. Compare the versions of the product documentation on the site with the versions you have.
3. If the version number on www.avaya.com is higher than the version number on the documentation you have, download the latest version of the document.
4. Review the Avaya Web site for release notes and readme files.

Installing the most recent supported operating system service packs

Before you begin

- Access the Avaya hotfixes list on the Web site www.avaya.com/support.
- Install and configure Microsoft Windows Server 2008 64-bit Release 2 Service Pack 1 on your server.
- Review the specifications on operating system service updates in *Avaya Contact Center Select Solution Description*.

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 Contact Center supported patches or service packs.
3. Download the appropriate Microsoft Windows Server 2008 patches for the Contact Center software installed on this server.
4. Install the most recent Windows Server 2008 service pack that is validated with Contact Center by following the Microsoft Installation instructions.

Verifying if installed patches are up-to-date

Before you begin

- Look up the latest patches and upgrades for your Contact Center server at <http://support.avaya.com>.

About this task

Verify if installed patches are up-to-date by using the Contact Center Patch Viewer to view available patches and to verify the patches that are already installed on the server. Use the Patch Viewer to view the readme files associated with each patch.

Procedure

1. On the Contact Center server where you want to view available patches, click **Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center Patch Manager**.
2. Compare the most recent update name in the Patch Manager with the latest patches listed on the Avaya Web site.

Downloading the most recent Contact Center patches to the server

Before you begin

- Ensure that you use an account with administrator privileges on your server.

About this task

Download the most recent Contact Center patches to the server from <http://support.avaya.com> to ensure that you have the most current software.

Procedure

1. Log on to the server using an account with administrator privileges.
2. If a new service pack .msi file exists on <http://support.avaya.com>, download it and save it on the Contact Center server.

Installing Contact Center patches

Before you begin

- Download the latest documentation. See [Downloading the most recent product documentation](#) on page 149.
- Download the latest appropriate patches. See [Downloading the most recent patches to the server](#) on page 151.
- Ensure that you use an account with administrator privileges on your server.

About this task

Install the latest Contact Center service pack or patches to ensure that you have the most current development updates, or when you are upgrading your system.

The Contact Center Patch Viewer displays patches for installed Contact Center applications.

Procedure

1. Click **Start > All Programs > Avaya > Contact Center > Common Utilities > Contact Center > Contact Center Patch Manager**.

2. Click **Install**.
3. Click **Browse** and navigate to the folder where you downloaded the service packs.
4. Click **Scan for Updates**.

The Contact Center Updates section displays the available service packs.

5. Select the appropriate service pack.
6. Click **Install Update(s)**.
7. On the **License Agreement** window, read the End User License Agreement and if acceptable, click **I accept the terms in the license agreement**.
8. Click **Continue**.

The Patch Manager installs the service pack and displays a confirmation message.
9. Click **Close**.
10. Verify that the newly installed service pack appears under Installed Updates.

Logging on to Avaya Media Server Element Manager

Before you begin

- Obtain a valid user name and password to access Avaya Media Server Element Manager.

About this task

Log on to the Avaya Media Server Element Manager as an administrator to configure Avaya Media Server.

Element Manager (EM) is a web-based administration tool that facilitates the Operation, Administration, and Maintenance (OAM) of Avaya Media Server. A SIP-enabled Contact Center solution must contain one or more Avaya Media Server servers. Each Avaya Media Server server in the Contact Center solution must be licensed and configured to provide media services.

Procedure

1. On a client computer, start a Web browser.
2. In the address box, enter `https://SERVER_IP_ADDRESS:8443/em`. Where `SERVER_IP_ADDRESS` is the IP address of the Avaya Media Server.
3. In the **User ID** box, type the Avaya Media Server User ID log on account name. The default Element Manager User ID account name is the Avaya MS server administrator account name. If Avaya Media Server is installed on a Windows server, the default administrator account name is *Administrator*. If Avaya Media Server is installed on a Linux server, the default administrator account name is *amsuser*.
4. In the **Password** box, type the Avaya Media Server Element Manager password. The default Element Manager password is the administrator password for the Avaya MS server.

5. Click **Log in**.

Creating a backup destination for Avaya Media Server

Before you begin

- Configure the destination ftp server and check that it is operational.
- Ensure that you have the address or host name, ftp account details, and path for the backup server.

About this task

Create a location to store backups. You can specify an ftp server to which you can send backups from Avaya Media Server Element Manager.

You can configure any number of remote backup destinations. When performing remote backups, Element Manager (EM) uploads the backup files to the specified File Transfer Protocol (FTP) server and then deletes the duplicate backup files from the Avaya Media Server server. To perform a backup and restore, you must have permission to upload files to the remote backup destination.

You can accept the default backup location to save the Avaya Media Server backup on the local server.

Procedure

1. Access the Element Manager with Administrator privileges.
2. Expand **Tools**.
3. Expand **Backup and Restore**.
4. Select **Backup Destinations**.
5. On the Backup Destinations page, click **Add**.
6. In the **Destination Name** field, type a unique name for the backup destination.
7. In the **Host Name** field, type the host name of the destination server.
8. In the **User Name** field, type the ftp user name.
9. In the **Password** field, type the ftp password.
10. In the **Destination Path** field, type the path on the backup location to specify where the backup function writes the backup files.
11. Optionally, select the **Remove the local temporary file after transfer**.
12. Optionally, click **Test** to test your connection.
13. Click **Save**.

Backing up the Avaya Media Server database

Before you begin

- Configure the destination ftp server and check that it is operational.
- Ensure that you have the address or host name, ftp account details, and path for the backup server.

About this task

Create a location to store backups. You can specify an ftp server to which you can send Avaya Media Server Element Manager backups. Backup the Avaya Media Server data so you can restore it on the new server.

Procedure

1. Log on to the existing Avaya Media Server.
2. Access the Element Manager with administrator privileges.
3. Select **Backup Tasks**.
4. On the Backup Tasks window, click **Add**.
5. On the Add New Backup Task window, in the **Backup Task Name** box, type a name for this backup.
6. Select **System Configuration**.
7. Select **Application Content**.
8. Choose the backup destination that you created for the migration.
9. Select **Manually, as needed**.
10. Click **Save**.
11. In the Backup Tasks window, select the backup task you created.
12. Click **Run Now**.

The Confirm Backup window appears, showing the backup task name details about the backup.

13. Click **Confirm**.

The History Log Window appears. When the backup is complete, the backup details appear in the list.

Installing Avaya Media Server patches

Before you begin

- Download and review the Contact Center Release Notes. The Release Notes contain the known issues, patches, and workarounds specific to a release and patch line-up of Contact

Center. For more information about the Contact Center Release Notes, see www.avaya.com/support.

- Download the most recent Avaya Media Server Quick Fix Engineering patches and store them in the QFE subdirectory on the Avaya Media Server. QFE patches are ZIP files, do not un-zip QFE patches. The Avaya Media Server patching utility uses the QFE ZIP files. For a Linux server the default QFE folder location is /opt/avaya/ma/MAS/qfe.
- Read the QFE Readme files for the most recent information and instructions.

About this task

Install a new Quick Fix Engineering patch to apply an update to the Avaya Media Server system.

* Note:

Follow the instructions in the Contact Center Release Notes and in each Avaya Media Server patch Readme file.

Procedure

1. Navigate to the Element Manager for the Avaya Media Server node you want to patch.
2. In the navigation pane, click **System Status** > **Element Status**.
3. Click **Stop** and confirm the operation on the following page.
4. Close Element Manager.
5. In the VMware vSphere client, from the inventory list in the left pane, select the Avaya Media Server virtual machine.
6. With the Avaya Media Server virtual machine still selected, right-click and select **Open Console**.
7. On the Avaya Media Server console, change to the root user by running the `su -` command.
8. Obtain the correct name of the new QFE patch by entering the following command:

```
amspatch list all
```


The name of the file is not necessarily the same as the name of the patch name.
9. Under the **QFE Name** column, note the name of the patch (patchname).
10. Install all of the patches in numerical order. To install a new patch on the system, enter the following command:

```
amspatch apply <patchname>
```
11. To install all downloaded QFE patches on the system, enter the following command:

```
amspatch apply all
```
12. When the patch application is complete, open the Element Manager navigation pane, and click **Tools** > **Software Inventory**.
13. Verify the patch version listed in the **Patch Level** column is correct.
14. Select **System Status** > **Element Status**, and click **Start**. Confirm the operation.

15. Select **System Status > Alarms** and check for service-impacting alarms.

Starting or stopping Contact Center server services

Before you begin

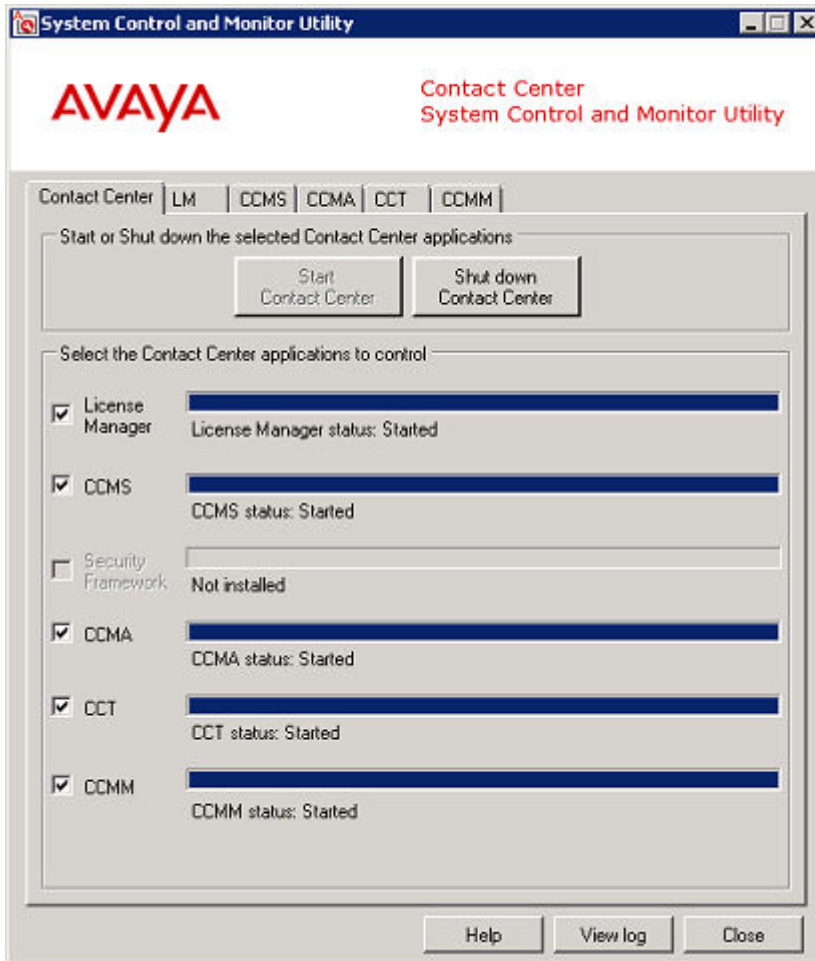
- Ensure there are no active calls before stopping the Avaya Contact Center Select services.

About this task

Use the System Control and Monitor Utility to start or stop all Avaya Contact Center Select services.

Procedure

1. Log on to the Avaya Contact Center Select server.
2. Click **Start > All Programs > Avaya > Contact Center > Common Utilities > System Control and Monitor Utility**.
3. Click the **Contact Center** tab.



4. To start the Avaya Contact Center Select services, click **Start Contact Center**.
5. To stop the Avaya Contact Center Select services, click **Shut down Contact Center**.

Part 6: Customization

Chapter 12: Customizing the solution

This section describes how to customize the working contact center for your solution. The default configuration is an example of a generic contact center solution. You can now customize Avaya Contact Center Select to meet your requirements.

Avaya Contact Center Select provides sample data to minimize the time and effort needed to validate basic contact center operation. You can also use the sample data provided as the initial configuration for your solution. When you log on to Contact Center Manager Administration for the first time, the following sample data is visible in the Management and Configuration components:

- Two sample supervisors, each created as a Supervisor/Agent. Contact Center creates a local Windows user account on the server linked to each of these supervisor agents.
- Eight sample agents, each assigned to one of the two sample supervisor/agents. Contact Center creates a local Windows user account on the server linked to each of these agents
- Two sample voice skillsets.
- One sample Agent Skillset Assignment and one sample Agent Supervisor Assignment.
- A sample skillset for each of the supported contact types. Each sample agent is assigned to the voice skillset.
- Sample Activity codes, After Call Work Item codes, and Not Ready Reason codes.
- A sample CDN (Route Point) number for voice calls.
- A sample Open Queue Route Point for multimedia contacts.
- Two sample Multiplicity Presentation Classes. A Multiplicity Presentation Class enables an agent to handle more than one contact type concurrently.
- One sample Route to provide music on a customer call.
- Three sample Threshold Classes with preconfigured values. Threshold classes determine how statistics are presented on real-time and historical reports.

Avaya Contact Center Select Prompt Management allows the administrator to manage prompts on the Avaya Media Server (Avaya MS). Contact Center provides a number of sample prompts and sample music that you can use in your Orchestration Designer flow applications to treat Contact Center calls. Contact Center also provides sample Orchestration Designer flow applications that use the sample prompts and music provided, in addition to the standard Orchestration Designer flows

available previously. All of the sample prompts have an associating variable that exists in Orchestration Designer. This allows the administrator to modify the prompts within the flow applications without opening Orchestration Designer.

Contact Center uses the sample CDN (Route Point) number to deliver calls to the sample Customer_Service flow application. The Customer_Service flow application provides sample treatments and routes the call to a sample agent.

The sample data provided allows you to make a first routed call in your contact center. It also serves as your initial configuration and allows you to rapidly commission your Avaya Contact Center Select solution.

Default user accounts

Account name	Password	Description
Administrator	Administrator	Default Contact Center Manager Administration administrator user.
reporting1	reporting1	A default Contact Center Manager Administration supervisor user.
reporting2	reporting2	A default Contact Center Manager Administration supervisor user.

Configuring Internet Explorer

About this task

Configure Internet Explorer to access Contact Center Manager Administration.

Install Microsoft Internet Explorer 8.0, 9.0, 10.0, or 11.0 (32 bit version only). Contact Center Manager Administration supports only the 32 bit version of Microsoft Internet Explorer.

Note:

You must run Internet Explorer in compatibility mode for Contact Center Manager Administration.

Procedure

1. Start Internet Explorer.
2. From the menu, select **Tools > Internet Options**.
3. In the **Internet Options** dialog box, click the **Security** tab.
4. Click the **Trusted Sites** icon.
5. Click **Custom Level**.
6. In the **Security Settings** dialog box for trusted sites, under the **.NET Framework-reliant components** heading, select **Enable** for the following:
 - **Run components not signed with Authenticode**
 - **Run components signed with Authenticode**

7. Under the **ActiveX controls and plug-ins** heading, select **Enable** for the following:
 - **Automatic prompting for ActiveX controls**
 - **Download signed ActiveX controls**
 - **Run ActiveX Controls and plug-ins**
 - **Script ActiveX Controls marked safe for scripting**
8. Under the **Downloads** heading, select **Enable** for the following:
 - **Automatic prompting for file downloads**
 - **File download**
9. Under the **Miscellaneous** heading, for **Allow script-initiated windows without size or position constraints**, select **Enable**.
10. Under the **Miscellaneous** heading, for **Allow websites to open windows without address or status bars**, select **Enable**.
11. Under **Reset custom settings**, from the **Reset to:** list select **Medium-low**.
12. Click **Reset**.
13. On the Warning dialog box, click **Yes**.
14. Click **OK**.
15. If you enabled ActiveX options, when a message appears asking you to confirm your choice, click **Yes**.
16. Click the **Trusted Sites** icon.
17. Click **Sites**.
18. In the **Trusted sites** dialog box, clear the **Require server verification {https:} for all sites in this zone** check box.
19. In the **Add this Web site to the zone** box, type the server name (not the IP address) for your Avaya Contact Center Select server.
20. Click **Add**.
21. Click **Close** to return to the **Internet Options** dialog box.
22. Click the **Privacy** tab.
23. In the **Pop-up Blocker** section, select the **Block pop-ups** check box.
24. Click **Settings**.
25. In the **Pop-up Blocker Settings** dialog box, in the **Address of website to allow** box, type the Avaya Contact Center Select server URL, `http://<server name>/`, where `<server name>` is the name of the Avaya Contact Center Select server.
26. Click **Add**.
27. Click **Close**.
28. In the **Internet Options** dialog box, click the **Advanced** tab.

29. Under **Browsing**, clear the **Reuse windows for launching shortcuts** check box.
30. Click **OK** to exit the **Internet Options** dialog box.
31. Restart Internet Explorer to activate your changes.

Starting the Script Variables tool in Contact Center Manager Administration

Before you begin

- Ensure the client computer meets the administration client computer requirements. For more information, see *Avaya Contact Center Select Solution Description*.
- Configure Internet Explorer. For more information, see [Configuring Internet Explorer](#) on page 159.

About this task

Start the Script Variables tool to list the application variables on your system. You can also use this window to create, update, or delete an application variable.

You can log on to CCMA for the first time as an administrator or a supervisor. For security reasons, Avaya highly recommends that you change the default password when you first log on to the application. CCMA user passwords can contain only English characters and special characters.

Procedure

1. Start Internet Explorer.
2. In the **Address** box, type the URL of the Avaya Contact Center Select server. The default URL is `http://<server name>`, where `<server name>` is the host name of the Avaya Contact Center Select server.
3. Press **Enter**.
4. In the main logon window, in the **User ID** box, type the user name. The default user ID is Administrator.
5. In the **Password** box, type the password. The default user password is Administrator.
6. Click **Log In**.
7. From the **Launchpad**, select **Scripting**.
8. In the Scripting window, expand the system tree.
9. In the left pane, in the system tree, click your Contact Center Manager Server.
10. Click **Script Variables**.

Checking variables for referencing applications

Before you begin

- Start the Script Variables tool. See [Starting the Script Variables tool in CCMA](#) on page 161.

About this task

Check a variable to see if it is referenced by an active application. If it is referenced by an active application, you can change the value of the variable or the comment.

If you want to change the properties of a variable and how the variable appears in an application, you can deactivate the application or remove the reference to the variable from the referencing application.

Procedure

1. In the Scripting window, expand the system tree.
2. In the system tree, click **CC**.
3. Click **Script Variables**.

The system tree in the left pane expands to show all types of variables. The right pane shows an alphabetical list of all variables. In the Script Variables grid, you can sort all columns by clicking on the column header.

4. In the left pane of the Script Variables window, select the script variable that you want to check.
5. In the right pane, click **Script Variable Properties**.
6. Under **Referencing Scripts**, determine which scripts use the variable.
7. View the **Script Variable Properties** to change the variable value or comment.
8. Click **Submit**.

Configuring business and public holiday dates

Before you begin

- Start the Contact Center Manager Administration Script Variables tool. See [Starting the Script Variables tool in CCMA](#) on page 161.
- Ensure that the variable is not referenced by an active application. See [Checking variables for referencing applications](#) on page 162.

About this task

Configure the dates on which the contact center is closed. For example, add the local business and public holidays to the list of contact center holidays.

The Avaya Contact Center Select sample data includes a date variable “holidays_gv” with the following values:

Date value	Holiday
01/01	New Year's Day

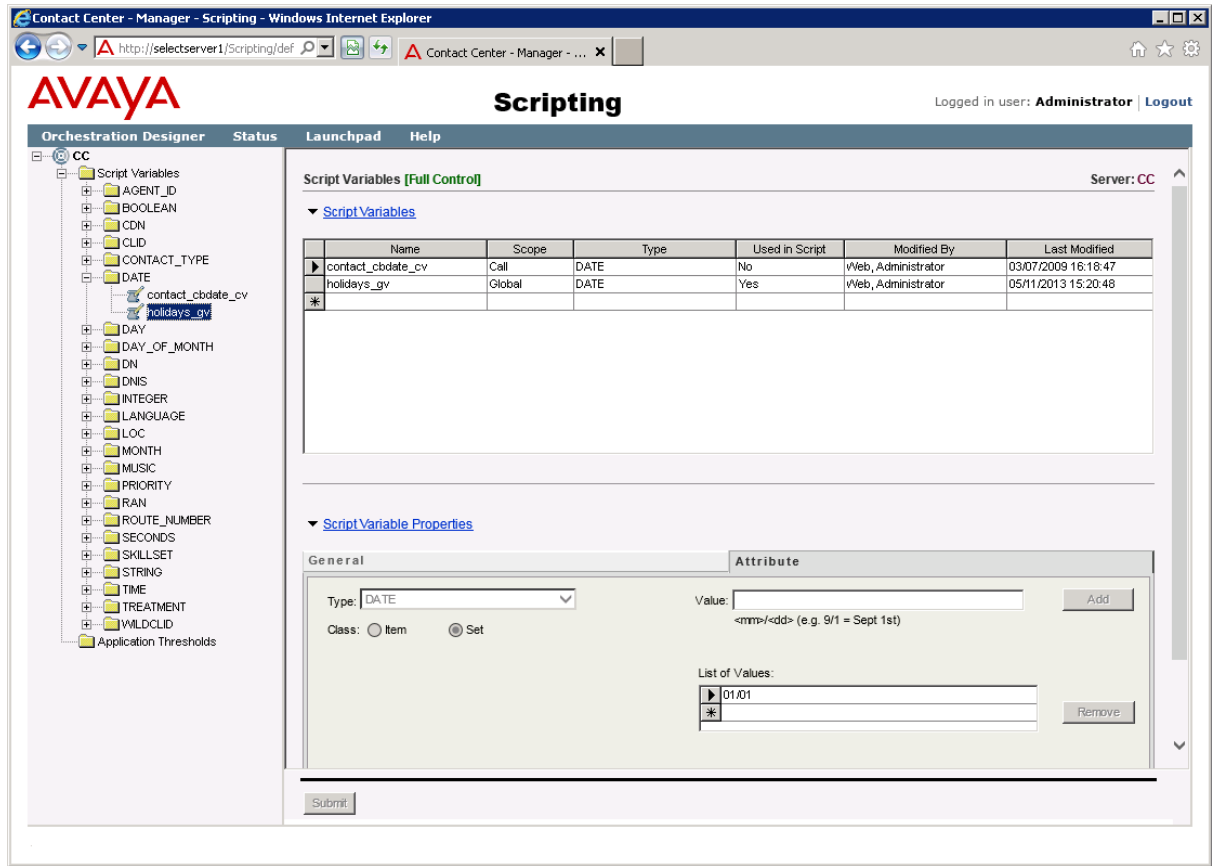
Avaya recommends that you add your local business and public holidays and remove the sample dates.

Procedure

1. From the Contact Center Manager Administration **Launchpad**, select **Scripting**.
2. In the Scripting window, expand the system tree.
3. In the system tree, click your Avaya Contact Center Select server.
4. Click **Script Variables**.

The system tree in the left pane expands to show all types of variables. The right pane shows an alphabetical list of all variables. In the Script Variables grid, you can sort all columns by clicking on the column header.

5. In the Script Variables window, select the script variable that you want to change. Expand **Date** and select **holidays_gv**.
6. Click **Script Variable Properties**.
7. In the **Script Variable Properties** property sheet, select the **Attribute** tab.



8. In the **List of Values** table, add your local business and public holidays.
9. If any of the existing dates are not suitable for your solution, use the **Remove** button to delete the dates.
10. Click any other row in the table to save the dates.
11. Click **Submit**.

Configuring the office hours

Before you begin

- Start the Contact Center Manager Administration Script Variables tool. See [Starting the Script Variables tool in CCMA](#) on page 161.
- Ensure that the variable is not referenced by an active application. See [Checking variables for referencing applications](#) on page 162.

About this task

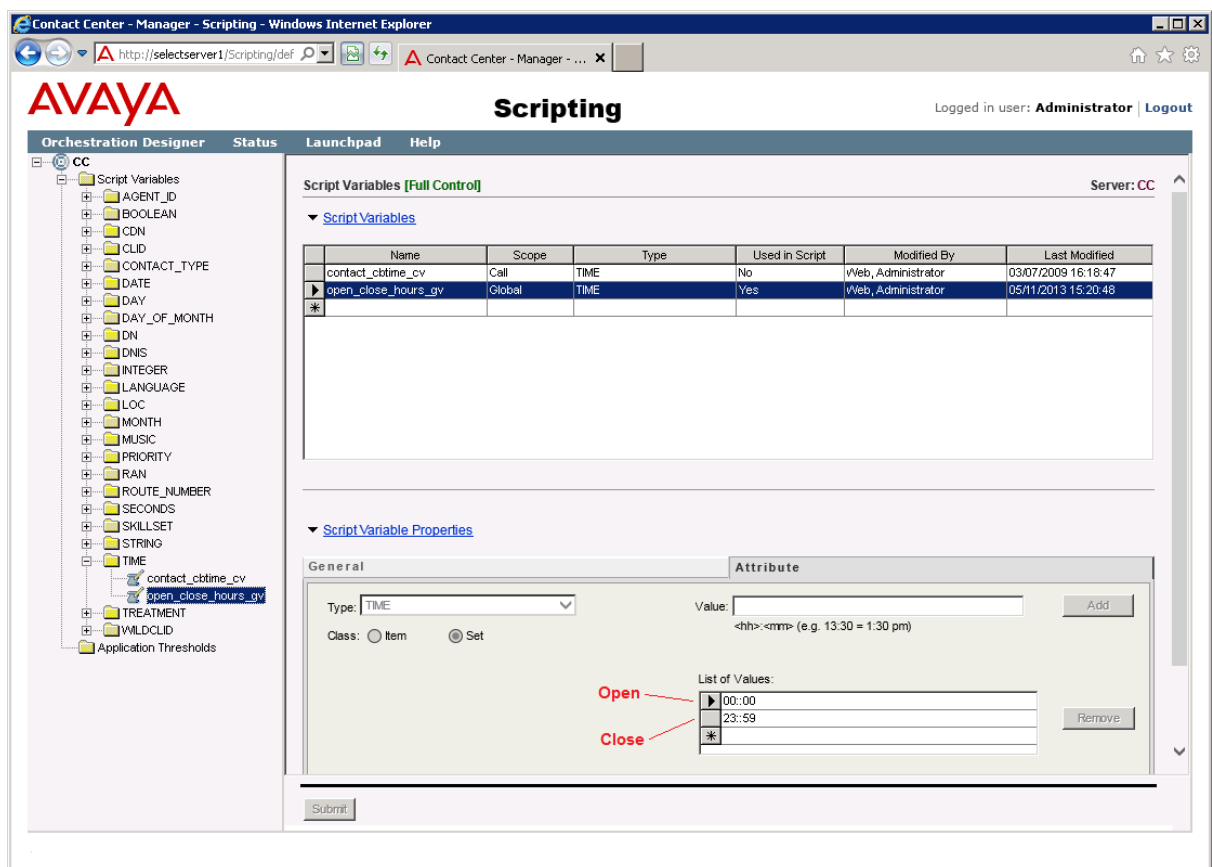
Configure the time of day that your solution is open for business.

Procedure

1. From the Contact Center Manager Administration **Launchpad**, select **Scripting**.
2. In the Scripting window, expand the system tree.
3. In the system tree, click your Avaya Contact Center Select server.
4. Click **Script Variables**.

The system tree in the left pane expands to show all types of variables. The right pane shows an alphabetical list of all variables. In the Script Variables grid, you can sort all columns by clicking on the column header.

5. In the Script Variables window, select the script variable that you want to change. Expand **TIME** and select **open_close_hours_gv**.
6. Click **Script Variable Properties**.
7. In the **Script Variable Properties** property sheet, select the **Attribute** tab.



8. In the **List of Values** table, edit the time of day that your contact center opens. This is the first time in the list. The default is 00:00.
9. In the **List of Values** table, edit the time of day your contact center closes. This is the second time in the list. The default is 23:59.

10. Click **Submit**.

Changing the default voice mail number

Before you begin

- Start the Contact Center Manager Administration Script Variables tool. See [Starting the Script Variables tool in CCMA](#) on page 161.
- Ensure that the variable is not referenced by an active application. See [Checking variables for referencing applications](#) on page 162.

About this task

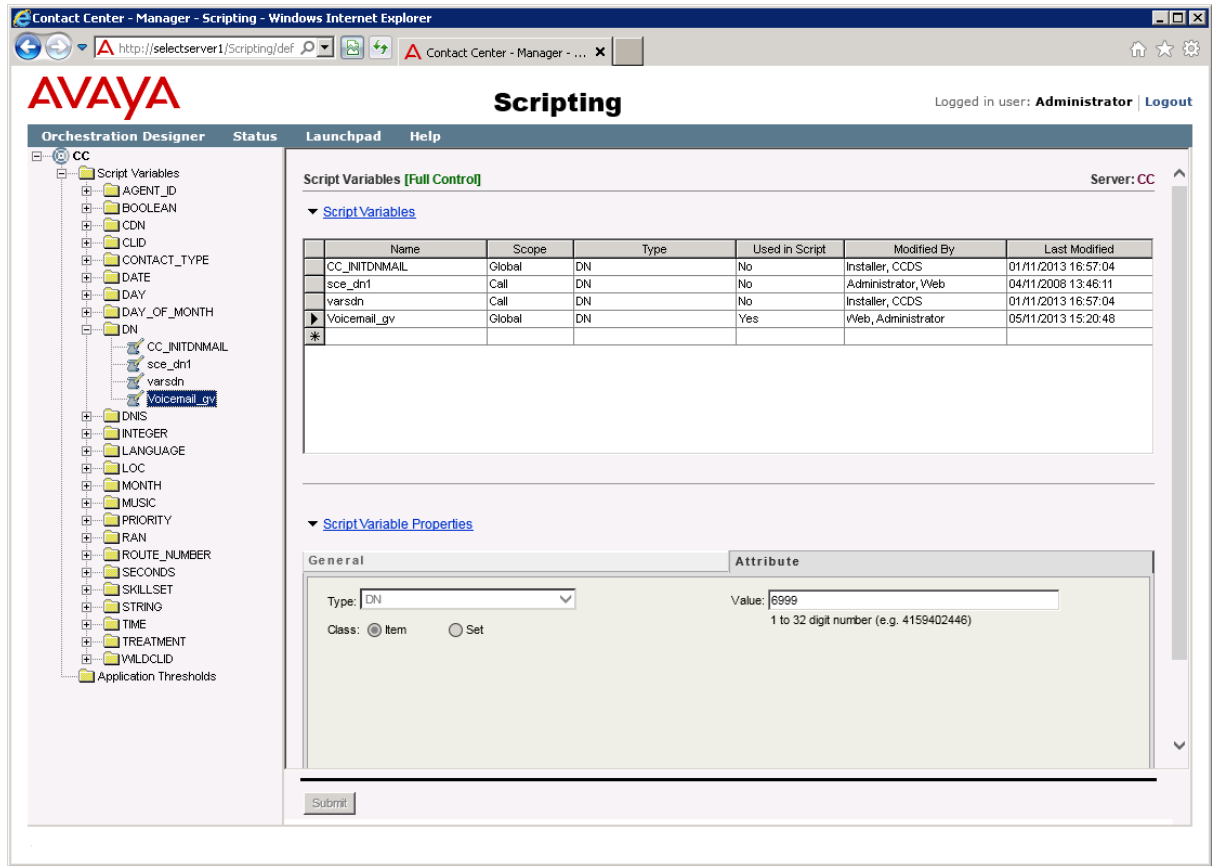
Change the default voice mail number to match your solution. This voice mail number is used by “Option 4” in the Customer Service sample Orchestration Designer flow application.

Procedure

1. From the Contact Center Manager Administration **Launchpad**, select **Scripting**.
2. In the Scripting window, expand the system tree.
3. In the system tree, click your Avaya Contact Center Select server.
4. Click **Script Variables**.

The system tree in the left pane expands to show all types of variables. The right pane shows an alphabetical list of all variables. In the Script Variables grid, you can sort all columns by clicking on the column header.

5. In the Script Variables window, select the script variable that you want to change. Expand **DN** and select **Voicemail_gv**.
6. Click **Script Variable Properties**.
7. In the **Script Variable Properties** property sheet, on the **Attribute** tab, change the **Value** field as required. Enter the voice mail number for your solution. The default voice mail number is 6999.



8. Click **Submit**.

Changing the voice prompt audio files

Before you begin

- Record your own media files. Avaya Contact Center Select provides optimum playback performance with .WAV files encoded as Linear 16-bit PCM, 8KHz Mono with a sampling rate of 128kbts/sec.
- Copy the media files onto the Avaya Contact Center Select server.

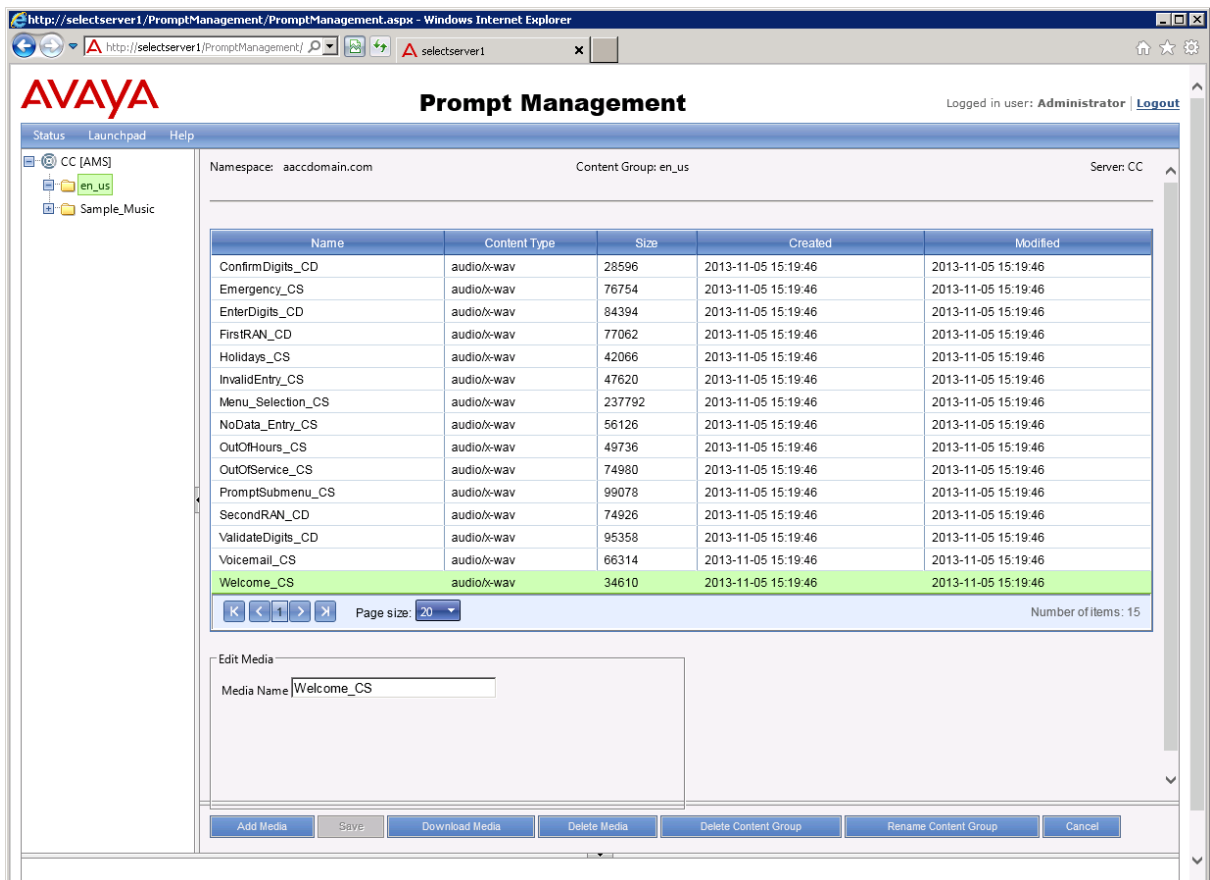
About this task

Avaya Contact Center Select provides a number of default media files. You can replace these default media files with your own recordings.

For example, to replace the Welcome_CS media file, record your own main welcome audio media file, and add the media file to the Avaya Contact Center Select Content Group, giving it a *Media Name* of Welcome_CS.

Procedure

1. Start Internet Explorer.
2. In the **Address** box, type the URL of the Avaya Contact Center Select server. The default URL is `http://<server name>`, where `<server name>` is the computer name of the Avaya Contact Center Select server.
3. Press **Enter**.
4. In the main logon window, in the **User ID** box, type the user name.
5. In the **Password** box, type the password.
6. Click **Log In**.
7. From the **Launchpad**, select **Prompt Management**.
8. In the Prompt Management window, in the left pane, expand the system tree.
9. In the left pane, expand the locale-specific Content Group for your solution. For example, expand **en_us**.



10. In the right pane, select the audio media file to update. Note the Name of the media. For example, note "Welcome_CS".
11. Click **Add Media**.

12. Click **Select** and browse to the location of your custom audio media file.
13. Click **Open**.
14. In the **Media Name** box, type the name of the existing media that you want to replace. For example, type Welcome_CS.
15. Click **Save**.
16. On the message box, click **OK** to overwrite the existing media file.

Chapter 13: Avaya Contact Center Select users

Avaya Contact Center Select includes two types of users in Contact Center Manager Administration — an administrator user and a supervisor user. By default, Contact Center creates one administrator user and two supervisor users. Contact Center assigns the appropriate access classes and partitions to the created accounts.

A supervisor user can perform only a subset of the tasks an administrator can perform. This includes, but is not limited to:

- assigning agents to skillsets
- changing an agent's supervisor
- creating and editing activity codes
- viewing existing real-time reports
- making private copies of real-time reports
- launching Emergency Help
- running historical reports
- using the Audit Trail

The Launchpad options available to a supervisor user in Contact Center Manager Administration are limited. The administrator can choose to edit the access classes and partitions assigned to a supervisor user.

The administrator performs advanced configuration tasks in Contact Center Manager Administration, in addition to the tasks listed above.

If you selected the *Sample Agent Starting ID* default configuration values when deploying Avaya Contact Center Select, the following agents and supervisors are automatically created during the installation.

User Type	User name	User ID	Default password
Agent Supervisor	sample1 supervisor	6001	Pw_6_001
Agent	sample1 agent1	6002	Pw_6_002
Agent	sample2 agent2	6003	Pw_6_003
Agent	sample3 agent3	6004	Pw_6_004
Agent	sample4 agent4	6005	Pw_6_005

User Type	User name	User ID	Default password
Agent	sample5 agent5	6006	Pw_6_006
Agent Supervisor	sample2 supervisor	6007	Pw_6_007
Agent	sample8 agent8	6008	Pw_6_008
Agent	sample9 agent9	6009	Pw_6_009
Agent	sample10 agent10	6010	Pw_6_010

The *Sample Agent Starting ID* default value is 6001. The default *Number of sample agents to create* is 10.

If you entered a different *Sample Agent Starting ID* when running the Avaya Contact Center Select Ignition Wizard, the logon IDs and passwords entered here are not the default sample values. If you use agent IDs that are different to the sample values, then the password format is *Pw_firstdigit_remainingdigits*. For example, if you entered a *Sample Agent Starting ID* of 7701, then your first supervisor “7701” has the password “Pw_7_701”. Agent “7702” has a password of “Pw_7_702”.

Logging on to Contact Center Manager Administration

Before you begin

- Ensure the client computer meets the administration client computer requirements. For more information, see *Avaya Contact Center Select Solution Description*.
- Configure Internet Explorer. For more information, see [Configuring Internet Explorer](#) on page 159.

About this task

Log on to Contact Center Manager Administration (CCMA) to configure and administer your contact center resources.

You can log on to CCMA for the first time as an administrator or a supervisor. For security reasons, Avaya highly recommends that you change the default password when you first log on to the application. CCMA user passwords can contain only English characters and special characters.

Procedure

1. Start Internet Explorer.
2. In the **Address** box, type the URL of the Avaya Contact Center Select server. The default URL is `http://<server name>`, where `<server name>` is the host name of the Avaya Contact Center Select server.
3. Press **Enter**.
4. In the main logon window, in the **User ID** box, type the user name. The default user ID is Administrator.
5. In the **Password** box, type the password. The default user password is Administrator.

6. Click **Log In**.

Creating a new agent

Before you begin

- Log on to Contact Center Manager Administration (CCMA).
- If you want to associate an agent with a domain account, you must first add the server to the domain.

About this task

Complete this procedure to use Contact Center Manager Administration to create a new Avaya Contact Center Select agent. Contact Center Manager Administration also uses the agent's name and password to create a local Windows account on the Avaya Contact Center Select server.

Procedure

1. On the Contact Center Manager Administration **Launchpad**, select **Contact Center Management**.
2. In the left pane, click the Contact Center Manager Server under which to add the agent.
3. From the **Add** menu, select **Agent**.
4. In the New Agent Details window, enter the following mandatory information about the agent:
 - First name
 - Last name
 - Login ID
 - Primary supervisor
 - Password
 - Confirm Password
5. Enter any optional information about the agent (for example, Call Presentation Class, Threshold, Title, Department, or Comments).
6. Under **Windows User Account Details**, select **Workgroup** or **Domain**. If your solution implements the Business Continuity feature, the **Domain** option is available.
7. If you select **Workgroup**:
 - a. In the **Password** box, type the password for the new local Windows user account associated with this agent.
 - b. In the **Confirm Password** box, retype the password.
8. If you select **Domain**:

In the **User name** box, type the name of the agent's domain user account in the format DomainName\UserAccountName. This domain account is associated with the agent.

! Important:

You must ensure that you associate the agent with a correct and valid domain user account.

9. If this agent uses the multiplicity feature on Agent Desktop, select a multiplicity presentation class from the **Multiplicity Presentation Class** list.

If multiplicity is not enabled, the Multiplicity Presentation Class list does not appear.

10. Click the **Contact Types** heading.
11. Select the check box beside each **Contact Type** to assign that contact type to the agent.
12. Click the **Skillsets** heading.
13. Click **Assign Skillsets**.
14. Click **List All** to list all skillsets configured on the server.
15. From the **Priority** list for each skillset to assign to the agent, select the priority level or select **Standby** to put the agent in standby mode for this skillset.

Priority levels range from 1 to 48, with 1 being the highest priority for the skillset.

16. Select the check boxes beside the partitions to which to add the new agent.
17. Click **Submit** to save your changes.

Agent variable definitions

Name	Description
First Name	The first name of the user. The first name is mandatory for all users and can be a maximum of 30 characters long.
Last Name	The last name of the user. The last name is mandatory for all users and can be a maximum of 30 characters long.
Title	The title for the user. The title is optional and can be up to 40 characters long.
Department	The user's department. The department is optional and can be up to 40 characters long.
Language	Select the language preference for the user. Language selection is mandatory for all users.
Comment	Comments you have about the user. Comments are optional and can be up to 127 characters in length.
User Type	Select the user type. This value is mandatory. Select the agent user type.

Name	Description
	Agents are users who are assigned skillsets and who answer contacts in the Contact Center. All agents must be assigned to a supervisor.
Login ID	The number that the user enters to log on to the phone. This value is mandatory for all users.
Windows User Account Details — Password (Workgroup only)	Contact Center Manager Administration uses the agent name and password to create a local Microsoft Windows user account on the Avaya Contact Center Select server. Enter a suitably complex password for the agent's Microsoft Windows user account.
Windows User Account Details — User name (Domain only)	The existing domain user account to associate with the agent, in the format DomainName \UserAccountName. The account details must be correct. Agents cannot log on to Agent Desktop if you type the account details incorrectly.
Primary Supervisor	The agent's supervisor. You can choose from all supervisors configured on the server to which you are currently logged on.
Call Presentation	The call presentation class to assign to this agent. The call presentation class determines whether the agent can take a break between calls, whether the agent can put DN calls on hold for incoming ACD calls, and whether the agent phone shows that the agent is reserved for a network call. Call Presentation is mandatory for all users with agent and supervisor/agent capability.
Multiplicity Presentation Class	The multiplicity presentation class to assign to this agent. The multiplicity presentation class determines the type and number of Multimedia contacts an agent can have open simultaneously on Agent Desktop. If multiplicity is not enabled, the Multiplicity Presentation Class list does not appear.
Threshold	The threshold class to assign to this user. The threshold class is mandatory for all users with agent and supervisor/agent capability.

Updating agent details

Before you begin

- Log on to Contact Center Manager Administration (CCMA). For more information, see [Logging on to Contact Center Manager Administration](#) on page 171.

About this task

Complete this procedure to edit the details of an agent or supervisor/agent.

Procedure

1. On the Contact Center Manager Administration **Launchpad**, select **Contact Center Management**.
2. From the **View/Edit** menu, select **Supervisors**.
3. In the left pane, click the server on which to work with the supervisor/agent profile.
The list of supervisors configured on the server appears.
4. Click the supervisor to whom the agent is assigned.
The tree expands to show the list of agents assigned to this supervisor.
5. Right-click the agent whose profile you want to edit, and then select **View Agent Details**.
6. On the Supervisor/Agent Details window, in the **User Details** and **Agent Information** sections, you can change agent details, such as first name, last name, user type, phone login ID, primary supervisor, call presentation, threshold, title, department, or comments.
7. To change the current skillset assignment or assign the agent to new skillsets, click the **Skillsets** heading.
The list of currently assigned skillsets appears.
8. To change the priority level for a skillset, in the table of assigned skillsets, from the **Priority** list, select a new priority level.
9. To assign the agent to new skillsets, click **List All** to list all skillsets configured on the server.
10. In the table listing all skillsets, from the **Priority** list, select the priority level for each skillsets to which you want to assign the agent.
OR
Select Standby to put the agent in standby mode for this skillset.
Skillset priority levels range from 1 to 48, with 1 being the highest priority for this skillset.
11. Select the check box for each partition to which you want to add the agent.
12. Click **Submit** to save your changes.

Copying agent properties

Before you begin

- Log on to Contact Center Manager Administration (CCMA). For more information, see [Logging on to Contact Center Manager Administration](#) on page 171.

About this task

There are several ways to copy an agent's properties. This procedure lists one possible way. You can also click Copy Agent Properties on the Functions menu in the Agents List window, or you can right-click an agent name in the system tree, and then click Create Copy from the resulting pop-up menu.

You can create new agents quickly by copying the properties of existing agents. New agents assume the following properties from the existing agent:

- Skillset assignment
- Department
- User type
- Language
- Comment
- Supervisor
- Call presentation
- Threshold
- Contact type

When you copy an agent's properties, you must type in the new agent's name, login ID, and password.

Procedure

1. On the Contact Center Manager Administration **Launchpad**, select **Contact Center Management**.
2. From the **View/Edit** menu, select **Supervisors**.
3. In the left pane, click the server containing the agent to copy.
4. In the left pane, click the agent's supervisor.

The Supervisor window appears in the right pane, listing the assigned agents in a table.

5. In the table, click **Functions** beside the agent to copy, and then select **Copy Agent Properties**.

The agent's properties appear in the New Agent Details window.

6. In the **User Details** section, type the new agent's name and phone login ID.
7. Optionally, can also change any of the copied properties. For example, you can assign the agent to new skillsets or partitions in the appropriate areas of this window.

8. After you configure the new agent, click **Submit** to save the agent under the specified supervisor.

The agent's icon appears in the system tree.

Part 7: Agent Desktop

Chapter 14: Agent Desktop software installation

This section describes how to install Agent Desktop software using the ClickOnce deployment method or using a MSI file.

Avaya Contact Center Select agents can use the ClickOnce deployment method to download and install Agent Desktop client software from the Avaya Contact Center Select server.

Avaya Contact Center Select administrators can use the MSI file deployment method to push Agent Desktop software to agent client computers using a silent install.

If your solution uses the Avaya Contact Center Select Business Continuity feature, verify that the solution is functional and resilient before installing Agent Desktop software on all of the client computers.

Installing Agent Desktop software using ClickOnce

Before you begin

- Ensure the client computer meets the hardware and networking requirements for Agent Desktop software. For more information about Agent Desktop requirements, see *Avaya Contact Center Select Solution Description*.
- Ensure the client computer meets the Operating System requirements for Agent Desktop software. For more information about Agent Desktop requirements, see *Avaya Contact Center Select Solution Description*.

About this task

Install Agent Desktop software to handle Avaya Contact Center Select customer contacts.

Procedure

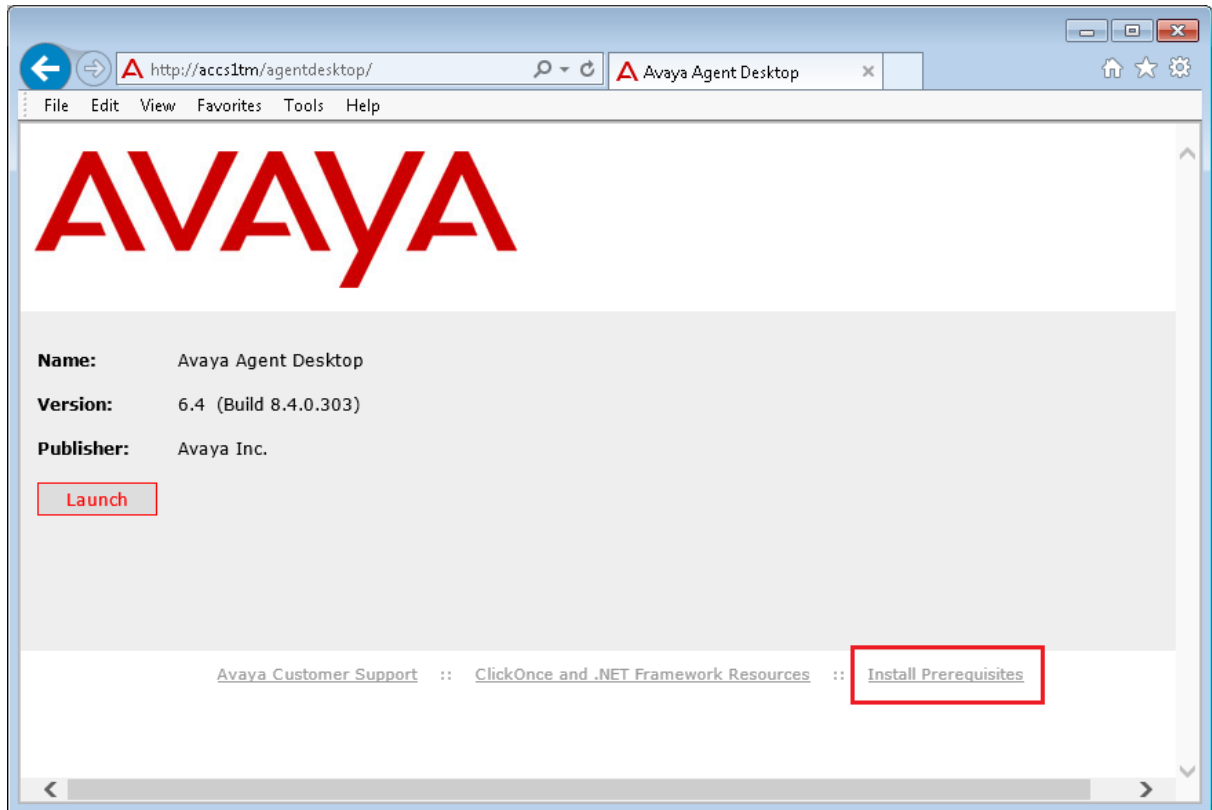
1. In Windows Explorer or Internet Explorer, type the HTTP address (URL) provided by your system administrator.

The URL format is:

`http://<ContactCenterServerName>/agentdesktop`

Where <ContactCenterServerName> is the Avaya Contact Center Select server name.

2. Click **Install Prerequisites** and follow the on screen instructions to install the .NET and operating system components required to run Agent Desktop software.



3. Click **Launch** to download and install the most recent version of Agent Desktop software.

Agent Desktop client software silent installation

This section describes how to install the Agent Desktop client software silently, using a MSI file, on each client computer in your contact center. Avaya Contact Center Select agents use Agent Desktop software to handle customer voice and multimedia contacts.

Installing software prerequisites for an Agent Desktop silent install

Before you begin

- Download the most recent Service Pack and patches from the Avaya support Web site, <http://support.avaya.com>.

About this task

Install the software prerequisites for Agent Desktop, so that you can install Agent Desktop silently.

You can use the Windows Add\Remove programs utility to uninstall the Agent Desktop software prerequisites.

Procedure

1. Log on to the Avaya Contact Center Select server using administrator privileges.
2. Browse to <DRIVE>:\Avaya-ProductUpdates\Install Software\CCMM\AvayaAura_CCMM_<XXX>\AAAD, where <DRIVE> is the drive on which you downloaded the most recent Service Pack, and <XXX >is the version number of the latest Service Pack.
3. Copy the AAAD Prerequisites folder to a location from which you can copy it to the client computer.

For example, copy the AAAD Prerequisites folder to a USB memory stick.

4. Log on to the client computer using administrator privileges.
5. Copy the AAAD Prerequisites folder to the client computer.
6. Install Microsoft Dot Net Framework 4.0.
7. Install Microsoft Visual C++ 2005 SP1 Redistributable Package x86.
8. Install Microsoft Visual C++ 2008 SP1 Redistributable Package x86.

Installing Agent Desktop client software silently

Before you begin

- Download the most recent Service Pack and patches from the Avaya support Web site.

About this task

Install Agent Desktop client software silently to install the software as a desktop application with an All Users profile. This allows all agents that can log on to the client computer to run Agent Desktop software. By default, the Agent Desktop software installs in the Program Files folder.

You can use the Windows Add\Remove programs utility to uninstall the Agent Desktop software.

Procedure

1. Log on to the Avaya Contact Center Select server using administrator privileges.
2. Browse to <DRIVE>:\Avaya-ProductUpdates\Install Software\CCMM\AvayaAura_CCMM_<XXX>\, where <DRIVE> is the drive on which you downloaded the most recent Service Pack, and <XXX> is the version number of the Service Pack.
3. Copy the AvayaAuraAgentDesktopClient.msi installation file.
4. Log on to the client computer using administrator privileges.
5. Copy the AvayaAuraAgentDesktopClient.msi installation file to the client computer.
6. Open a command prompt by clicking **Start > All Programs > Run**. Type **cmd** and press Enter.
7. Use the Microsoft Windows Installer program (msiexec.exe) to install the software. For example:

```
C:\AAAD>msiexec.exe /package AvayaAuraAgentDesktopClient.msi /
quiet /log "products.log" MMSERVERNAME=MyCCMMServer
AAADUSEHTTPS=FALSE
```

Where:

- MMSERVERNAME — This parameter configures the name of the Avaya Contact Center Select server that the Agent Desktop application communicates with. This parameter can be an IP Address or a server name.
- AAADUSEHTTPS — This binary parameter (TRUE or FALSE) configures Agent Desktop to communicate with the Avaya Contact Center Select server using Hypertext Transfer Protocol Secure (HTTPS). The default value is FALSE, do not use HTTPS.

The Agent Desktop software installs silently.

8. Close the command prompt window.

Part 8: Reporting

Chapter 15: Real Time Reporting

The Contact Center Manager Administration (CCMA) Real-Time Reporting displays provide up-to-date statistics for your contact center and resources. With access to statistics that update in real-time, such as the number of contacts waiting to be answered, the number of agents assigned to each skillset, and the number of abandoned calls, you can view changes in contact activity as they occur.

Real-time data is presented in the best format to help you react immediately to changing circumstances, adjust skillsets and staffing levels, or reroute calls to other resources. Real-Time Reporting displays make it easy to monitor peak periods and then adjust staffing levels as appropriate - all to maintain the highest levels of customer service.

Using the Contact Center Status real-time display

About this task

Use the Avaya Contact Center Select Real-Time Reporting displays to monitor the performance of the contact center in near real-time.

Avaya Contact Center Select offers a number of default public real-time displays. Create a private copy of these displays and experiment with them to create displays that meet the day-to-day requirements of your business.

For example, the CC Status public graphical display has the following panels:

Panel	Type	Description
CC_Standard_Agent_Display (CC)	Tabular	This tabular panel displays the agent status and time in current state. Use this panel to monitor individual agent activity.
CC_Contacts_Wait	Chart	This pie chart displays the number of contact waiting for each skillset.
CC_Standard_Application_Display	Tabular	This tabular panel displays the maximum wait times, and the number of contacts offered, waiting, answered, or abandoned.

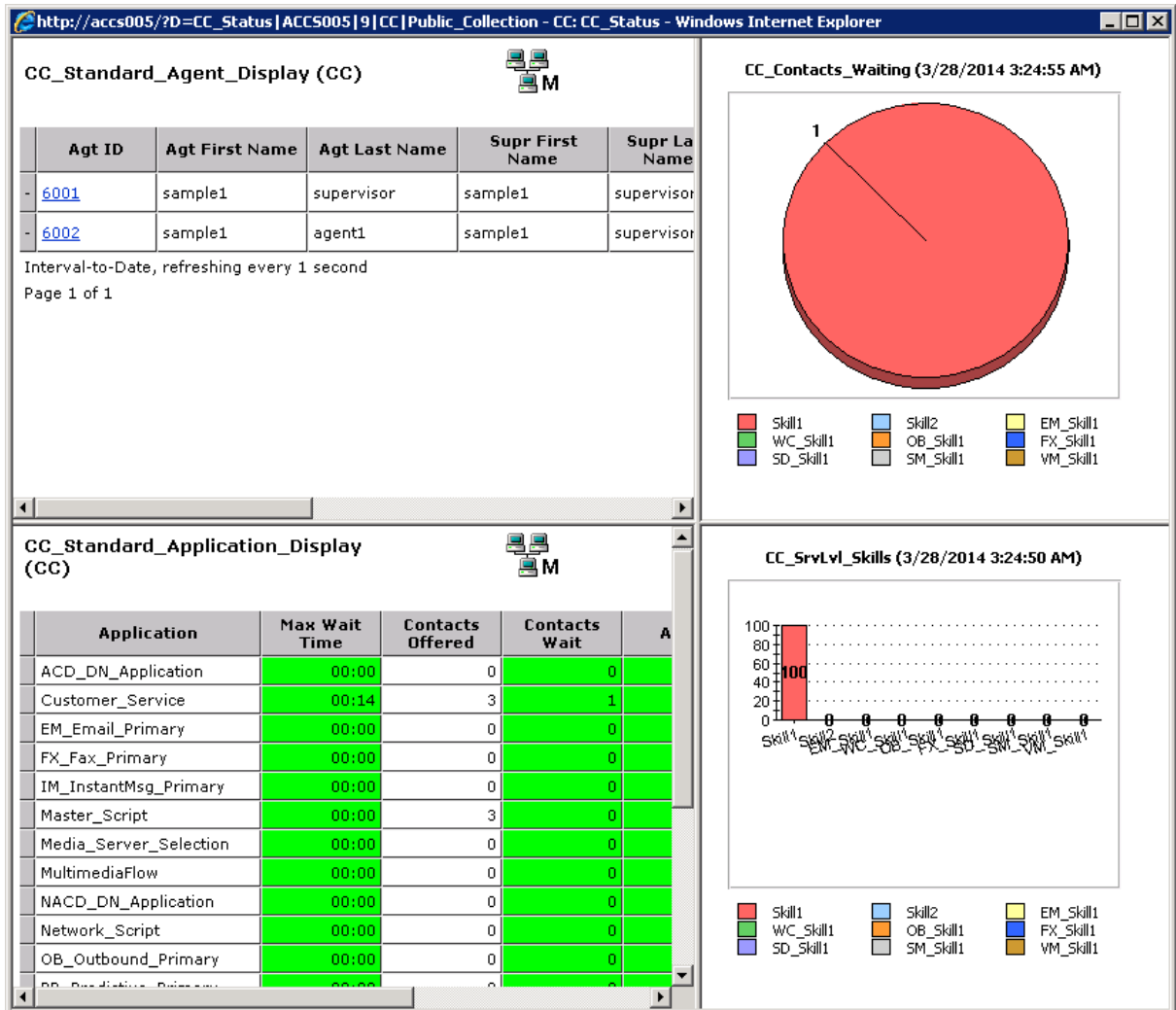
Panel	Type	Description
CC_Sample_Skills	Chart	This panel displays the service level for each skillset.

This combined display provides a real-time status report about important Avaya Contact Center Select performance parameters.

Procedure

1. Start Internet Explorer.
2. In the **Address** box, type the URL of the Avaya Contact Center Select server. The default URL is `http://<server name>`, where `<server name>` is the computer name of the Avaya Contact Center Select server.
3. Press **Enter**.
4. In the main logon window, in the **User ID** box, type the user name. The default user ID is Administrator.
5. In the **Password** box, type the password. The default user password is Administrator.
6. Click **Log In**.
7. On the Contact Center Manager Administration **Launchpad**, click **Real-Time Reporting**.
8. In the left pane, select the **Public Graphical Displays** folder.
9. In the left pane, from the list of displays, select **CC_Status**.
10. On the **Public Collection properties** tab, select the default display options for CC Status. These standard displays combine to form an effective Real-Time Reporting graphical display.
11. On the **Public Collection properties** tab, click **Launch**.

The Contact Center Status real-time display appears. The values you see on your display depend on the number of active agents and contacts in your solution.



12. Use the display to monitor contact center performance in near real-time. Use this information to tune the contact center to changing circumstances, adjust skillsets and staffing levels, or reroute calls to other resources.
13. For more information about creating a private and modifiable copy of this real-time display, see *Administering Avaya Contact Center Select*.
14. Experiment with Real-Time Reporting to find, copy, or create a set of displays that meet the day-to-day requirements of your solution.

Part 9: Troubleshooting

Chapter 16: Troubleshooting tips

This section describes how to troubleshoot Avaya Contact Center Select. To avoid the frustration of troubleshooting; plan your solution in advance. You can troubleshoot problems better by planning for events in advance and having up-to-date information if troubleshooting is required. For example, ensure that you know the correct user accounts, passwords, solution resources, and network details. Plan ahead and ensure that you are using the correct information to install and commission the Avaya Contact Center Select solution.

The main stages of the troubleshooting process are:

1. Identify the problem. Describe the symptoms of the problem. Is the problem intermittent or reproducible? Has the problem always existed, or was it introduced after a recent configuration change?
2. Determine the cause of the problem. Determining the most likely cause is a process of elimination - eliminating potential causes of a problem. The most likely cause of a problem is misconfiguration. Begin your investigation by double-checking the solution configuration data.
3. Solve the problem. Identify and test the solution to the problem. Intermittent problems require additional and prolonged soak testing.

Begin your troubleshooting by double-checking the solution configuration details, and then verify that the individual components are working. If you are not able to solve the problem, collect all the relevant information and have it available before contacting Avaya Technical Support.

Misconfiguration

In an integrated Avaya Contact Center Select and IP Office solution, the most likely cause of a malfunction is misconfiguration. Avaya Contact Center Select and IP Office must be configured correctly to work with each other. An apparently minor configuration error can be time-consuming and frustrating to resolve. When configuring a solution, plan ahead and proceed with care.

If you encounter an issue with your solution, begin your investigation by double-checking the solution configuration, focusing your investigation on the points of integration between Avaya Contact Center Select and IP Office. Look for mismatched configuration data between Avaya Contact Center Select and IP Office. For example, if IP Office is configured to use CDN (Route Point) 7000, when Avaya Contact Center Select is configured to use CDN (Route Point) 3000. Both must be configured to use the same CDN (Route Point) number. Ensure Avaya Contact Center Select and IP Office both use the same SIP domain name.

Solution components

Ensure that the Avaya Contact Center Select server part of the solution is working as intended. Use the procedures in this section to verify that the Avaya Contact Center Select components are running:

- Ensure the Avaya Contact Center Select application services are running.
- Ensure Avaya Contact Center Select can communicate with IP Office.
- Ensure Avaya Contact Center Select is registered with IP Office.
- Ensure Avaya Contact Center Select is licensed.
- If your solution supports the email contact type, ensure Avaya Contact Center Select can communicate with the email server and mailbox.

Verify that Avaya Contact Center Select is running. If a component is stopped, start it. If the licenses are all used up, obtain more. If email is not working, double-check your email server and mailbox.

Troubleshooting more complex issues

If you are not able to solve the problem, collect all relevant information and have it available before contacting Avaya Technical Support. For all errors, record the error messages, the system configuration, and actions taken before and after the error occurred.

- Review the Avaya Contact Center Select trace log files to diagnose the cause of the errors.
- Review the Avaya Contact Center Select application event logs to diagnose the cause of the errors.

Work with Avaya Technical Support to clearly identify the problem. The Avaya customer support representative might require remote access to Avaya Contact Center Select to complete the investigation.

Troubleshooting by symptom

The following table lists a number of Avaya Contact Center Select issues and suggests a fix for each issue.

Symptom	How to fix
Avaya Contact Center Select services not started	• Use the System Control and Monitor Utility to start the services. Click <i>Start Contact Center</i>. • Verify that the most recent Avaya Contact Center Select patches are installed. For more information, see Installing contact center patches on page 151. • Verify the Avaya Contact Center Select server settings are correct. From the Start menu, choose All Programs > Avaya > Contact Center > Manager Server > Server Configuration.
Agents cannot log on to Agent Desktop	• Verify that you are using the correct user name and password. The default domain name is the host name of the Avaya Contact Center Select server.

Symptom	How to fix
	• Ensure that there is an available IP Office extension for each Avaya Contact Center Select agent. Ensure the extension is of type H.323. For more information, see Configuring the agent extensions on page 33. • Verify that there are sufficient agent licenses available. For more information, see Checking the Contact Center License Manager real time usage on page 202.
No CTI call control. Agent Desktop is not controlling the agent desk phone.	• Verify that Avaya Contact Center Select is communicating with IP Office. For more information, see Checking the Contact Center connection to IP Office on page 201. • Verify that Avaya Contact Center Select is registered with IP Office. For more information, see Checking that the SIP User Extension Number is acquired on IP Office on page 199.
CDN (Route Point) calls not arriving at Avaya Contact Center Select	• Verify the IP Office short code number matches the Avaya Contact Center Select CDN (Route Point) number. For more information, see Configuring a shortcode to Contact Center Route Points on page 27. • Verify that there are no space characters in the IP Office short code. • Verify the IP Office short code is configured under the solution node, and not under the IP Office server node. • Verify that the Avaya Contact Center Select CDN (Route Point) number is acquired in Contact Center Manager Administration.
Avaya Contact Center Select not registered in IP Office.	• Verify that Avaya Contact Center Select is registered with IP Office as a SIP extension. For more information, see Checking that the SIP User Extension Number is acquired on IP Office on page 199. • Verify that Avaya Contact Center Select is registered as a SIP extension, ensure it is not registered as a H.323 extension.
IP Office calls are routing to the Avaya Contact Center Select CDN (Route Point), but the customer caller cannot hear the welcome announcement.	• The IP Office SIP domain name does not match the Avaya Contact Center Select SIP domain name. For more information, see Configuring the SIP domain name on page 25. • The Avaya Media Server locale setting does not match the Avaya Contact Center Select server locale (country and language) setting.
The Contact Center Manager Administration Web interface menus are not visible in the left pane	• Ensure Internet Explorer is using Compatibility mode. • Ensure the Contact Center Manager Administration Web interface client computer display has a resolution of at least 1024 x 768 pixels.
The Contact Center Manager Administration Web interface looks distorted	• Ensure the Contact Center Manager Administration Web interface client computer display has a resolution of at least 1024 x 768 pixels. • Ensure Internet Explorer is using Compatibility mode. • Temporarily disable the Internet Explorer pop-up blocker to allow Contact Center Manager Administration Active X controls and libraries to install.
The Avaya Contact Center Select users visible in Contact Center Manager	• Verify the Contact Center Manager Administration synchronization account details used by IP Office. For more information, see Configuring the synchronization user account on page 22.

Symptom	How to fix
Administration are not visible in IP Office.	In Contact Center Manager Administration, on the IP Office server configuration window, click <i>Synchronize</i>.

Starting the Contact Center Dashboard

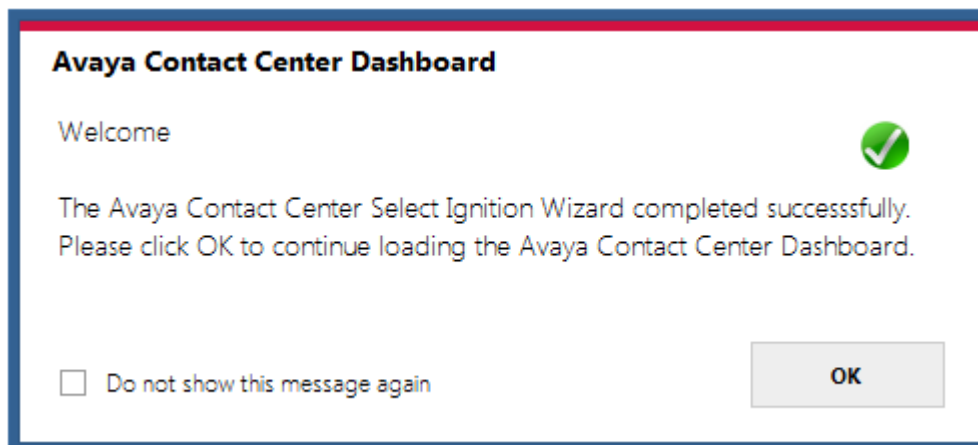
About this task

You can use the Contact Center Dashboard to access Contact Center system tools and diagnose system problems. The Contact Center Dashboard displays some Operating System and system details such as CPU type, network details, and Operating System activation status.

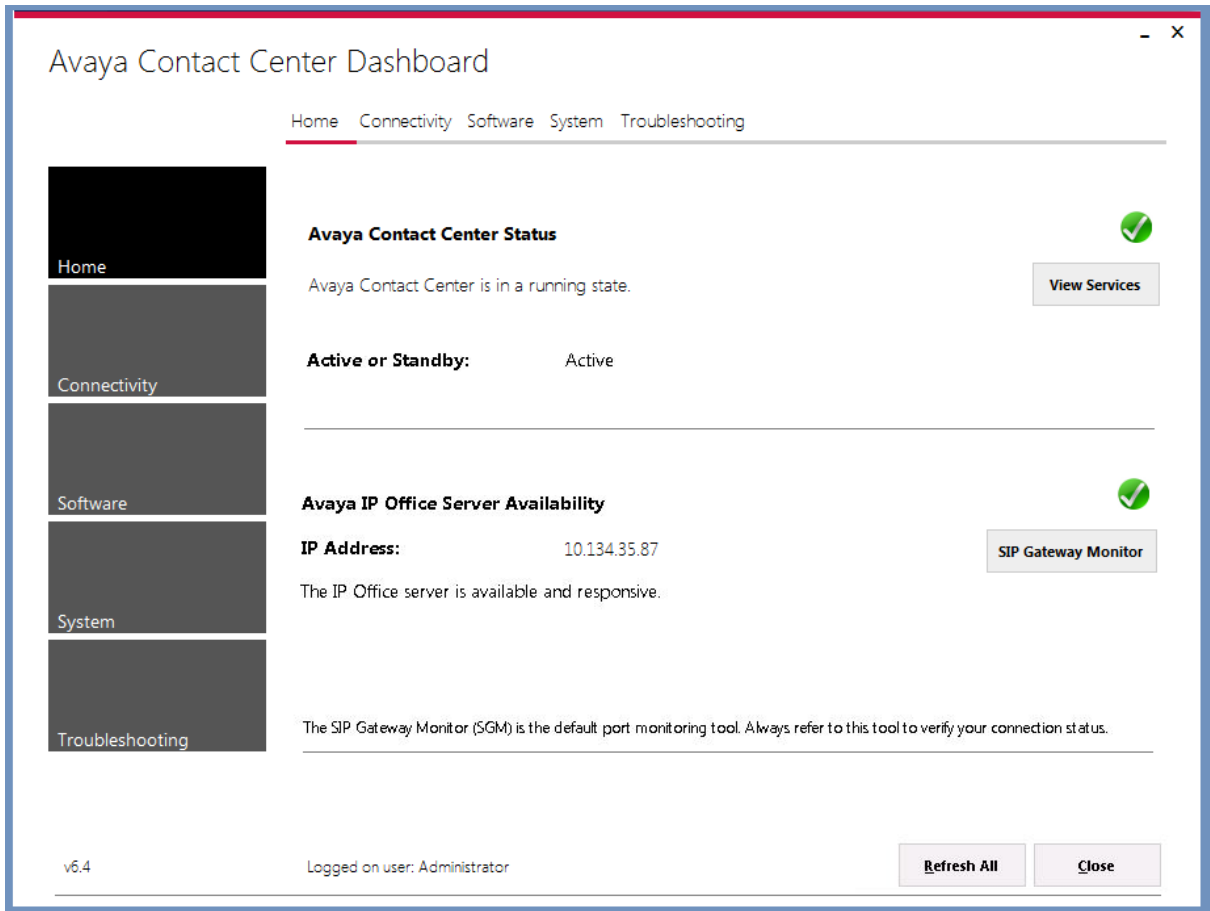
The Contact Center Dashboard launches automatically the first time the Contact Center server boots up. You can configure the Contact Center Dashboard to launch every time the server reboots and starts up.

Procedure

1. On the Avaya Contact Center Select server, click **Start** > **All Programs** > **Avaya** > **Contact Center** > **Contact Center Dashboard**.
2. If the Contact Center Dashboard Welcome message box appears, click **OK**.

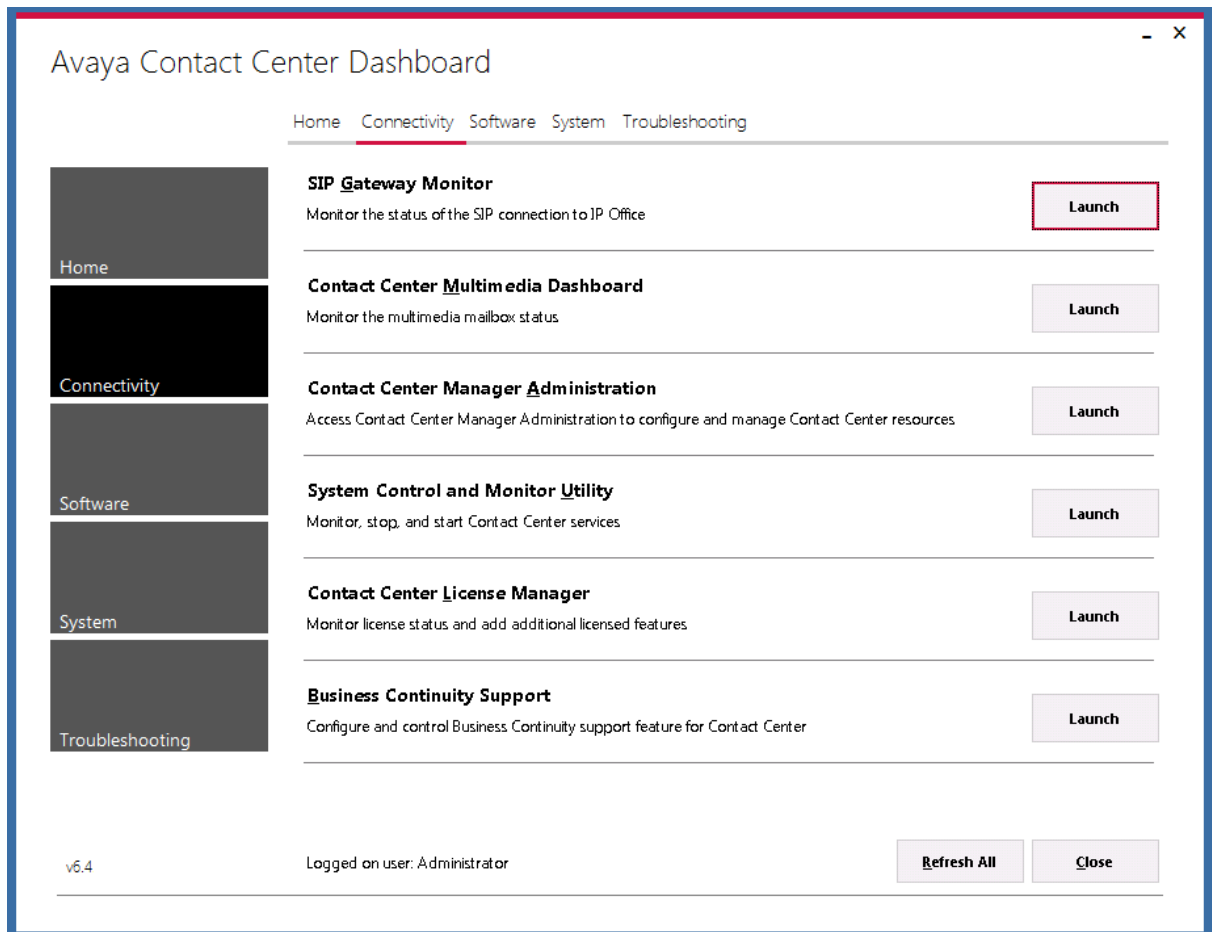


- After a few moments the Contact Center Dashboard appears. Select the **Home** tab.



- Click **Refresh All** to refresh the Contact Center Dashboard status reports.
- In the **Avaya Contact Center Status** section, click **View Services** to monitor the state of the Contact Center Windows services.
- In the **Avaya IP Office Server Availability** section, click **SIP Gateway Monitor** to determine if Contact Center is communicating with IP Office.

7. Select the **Connectivity** tab.



8. Select **SIP Gateway Monitor** to monitor the status of the SIP connection to IP Office.
9. Select **Contact Center Multimedia Dashboard** to monitor the multimedia mailbox status.
10. Select **Contact Center Manager Administration** to access Contact Center Manager Administration to configure and manage Contact Center resources.
11. Select **System Control and Monitoring Utility** to monitor, stop, and start Contact Center services.
12. Select **Contact Center License Manager** to monitor license status and add additional licensed features.
13. Select **Business Continuity Support** to configure the Business Continuity feature.

14. Select the **Software** tab.

Avaya Contact Center Dashboard

Home Connectivity **Software** System Troubleshooting

Contact Center 6.4.0.0-30

Avaya Media Server IP: 7.6.0.639

Contact Center Services for Avaya Media Server 6.4.0.122

Ignition Status Success [View Log](#)

Avaya Contact Center Components

Avaya Contact Center line-up is: 6.4 Service Pack 14. Please ensure you have downloaded and installed all appropriate patches from <http://support.avaya.com>

Third Party Software Information

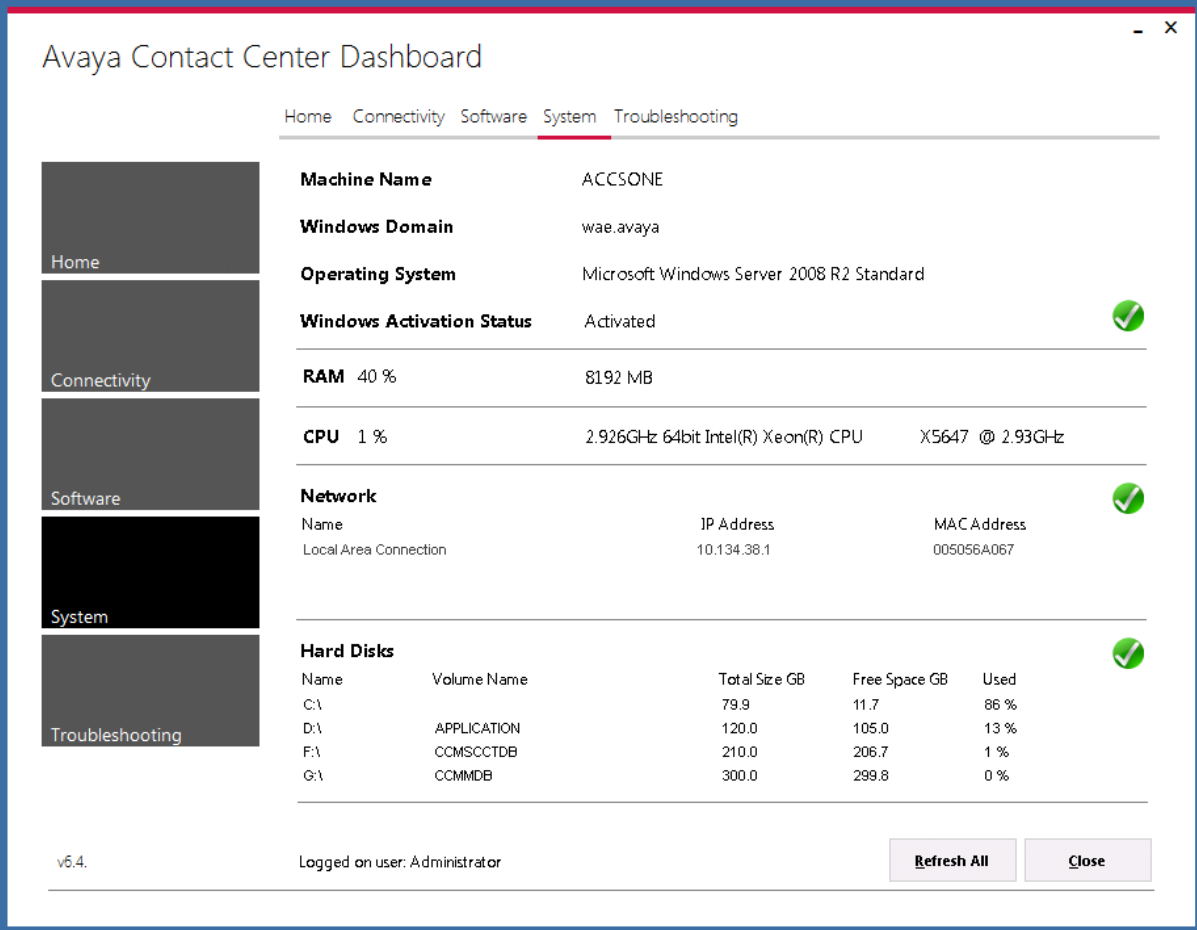
All Third Party software required for your current Contact Center line-up is present.

Name	Platform	Version	Status
Java Runtime Environment 6	x86	1.6.0 Update 37	Installed
Java Runtime Environment 6	x64	1.6.0 Update 37	Installed
Apache Tomcat	x86	7.0.35	Installed
Visual C++ Redistributable 2010	x86	10.0.40219	Installed

v6.4. Logged on user: Administrator

15. **Contact Center Version** displays the version of the Contact Center software installed on the server.
16. **Avaya Media Server** displays the version of Avaya Media Server software installed on the server.
17. **Contact Center Services for Avaya Media Server** displays the version of Contact Center Services for Avaya Media Server software installed on the server.
18. **Ignition Status** displays the Contact Center software installation status.
19. **Avaya Contact Center Components** displays the Contact Center software and patch line-up installed on the server.
20. **Third Party Software Information** displays the versions of the third-party software components used by Contact Center that are installed on the server.

21. Select the **System** tab.



Avaya Contact Center Dashboard

Home Connectivity Software **System** Troubleshooting

Home
Connectivity
Software
System
Troubleshooting

Machine Name ACCSONE

Windows Domain wae.avaya

Operating System Microsoft Windows Server 2008 R2 Standard

Windows Activation Status Activated 

RAM 40 % 8192 MB

CPU 1 % 2.926GHz 64bit Intel(R) Xeon(R) CPU X5647 @ 2.93GHz

Network 

Name	IP Address	MAC Address
Local Area Connection	10.134.38.1	005056A067

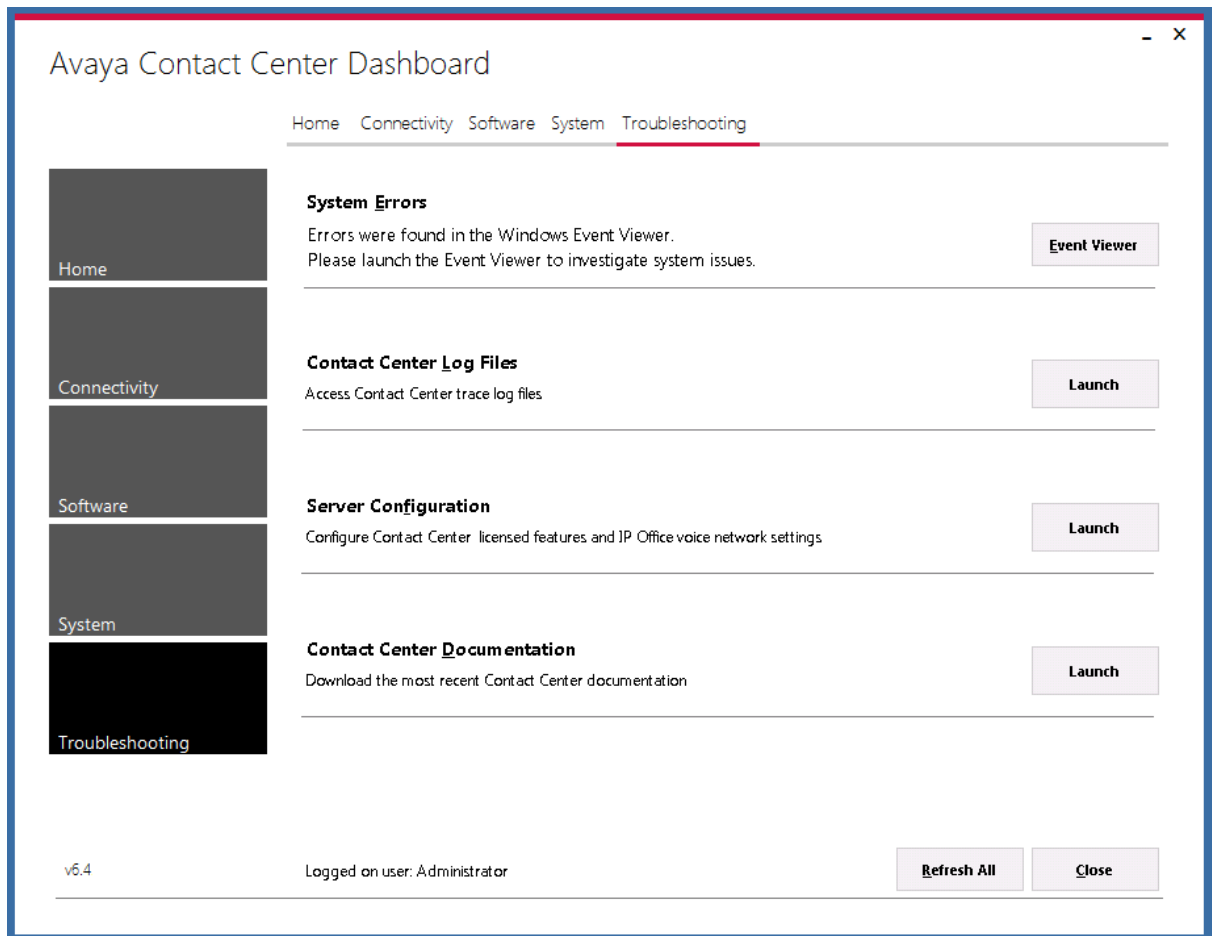
Hard Disks 

Name	Volume Name	Total Size GB	Free Space GB	Used
C:\		79.9	11.7	86 %
D:\	APPLICATION	120.0	105.0	13 %
F:\	CCMSCCTDB	210.0	206.7	1 %
G:\	CCMMDB	300.0	299.8	0 %

v5.4. Logged on user: Administrator Refresh All Close

22. **Machine Name** displays the host name of the Contact Center server.
23. **Windows Domain** displays the name of the domain that the Contact Center server is in.
24. **Operating System** displays the Operating System version.
25. **Windows Activation Status** displays the Windows Operating System license and activation status.
26. **RAM** displays the amount of RAM memory in the server.
27. **CPU** displays the type of CPU in the server.
28. **Network** displays the networking details of the server: IP address and MAC address.
29. **Hard Disks** displays the number, size, and drive letter of the hard disk volumes in the server.

30. Select the **Troubleshooting** tab.



31. Select **System Errors** to access Contact Center events in the Microsoft Windows Event Viewer.
32. Select **Contact Center Log Files** to access Contact Center trace log files.
33. Select **Server Configuration** to configure Contact Center licensed features and IP Office voice network settings.
34. Select **Contact Center Documentation** to access and download the most recent Contact Center documentation from the Avaya support web site.

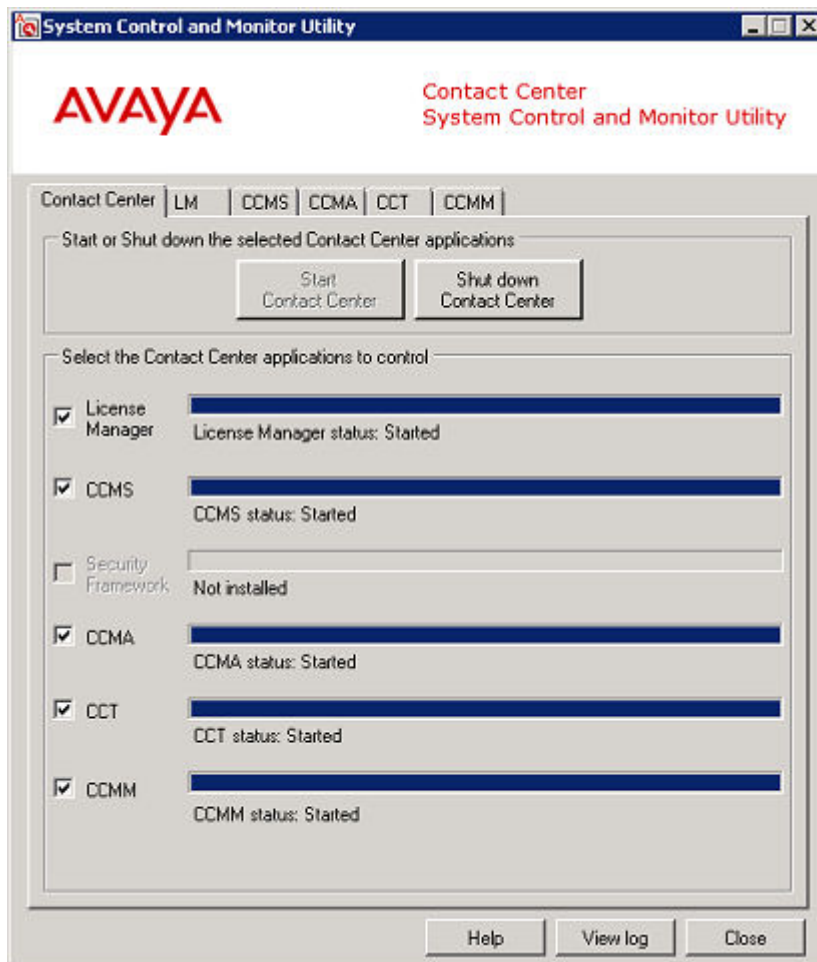
Verifying the Contact Center services are started

About this task

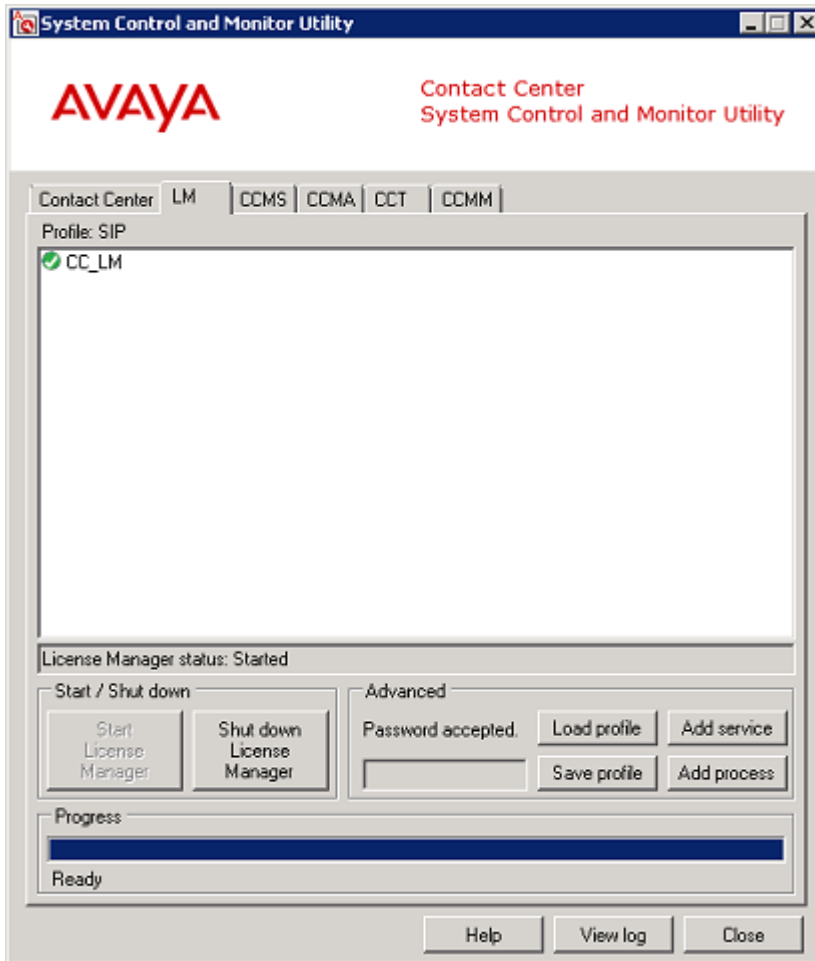
Verify that the Contact Center services are started. Use the System Control and Monitor Utility to verify that all necessary Avaya Contact Center Select services are running.

Procedure

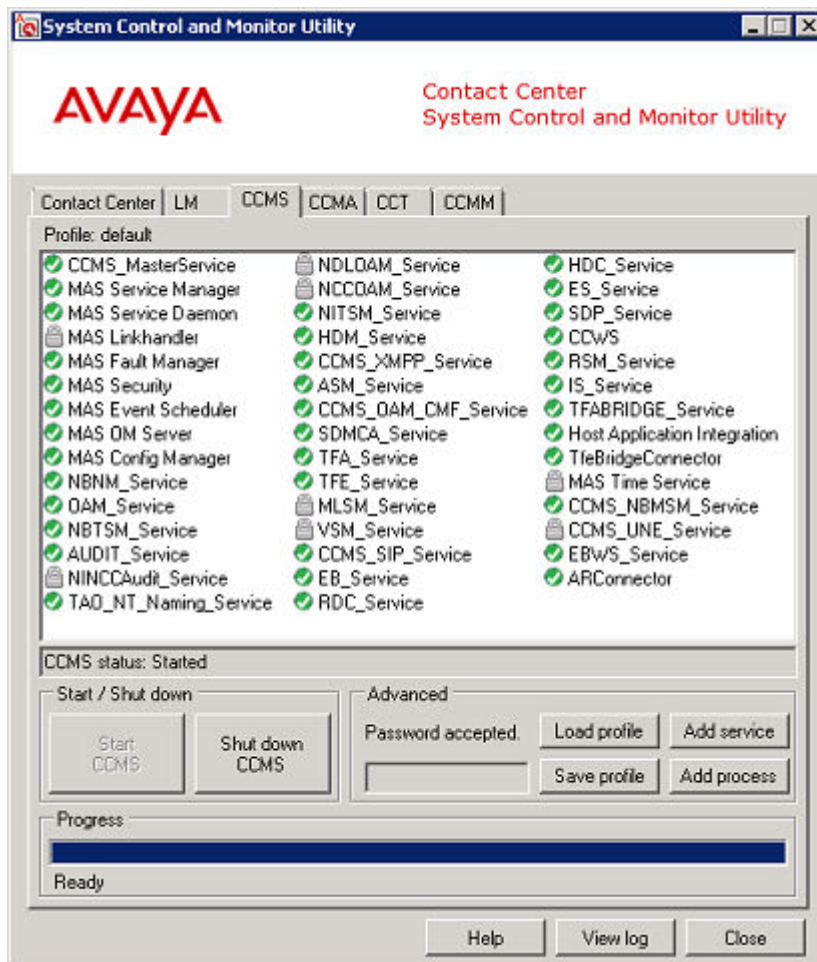
1. Log on to the Avaya Contact Center Select server.
2. Click **Start > All Programs > Avaya > Contact Center > Common Utilities > System Control and Monitor Utility**.
3. Click the **Contact Center** tab.



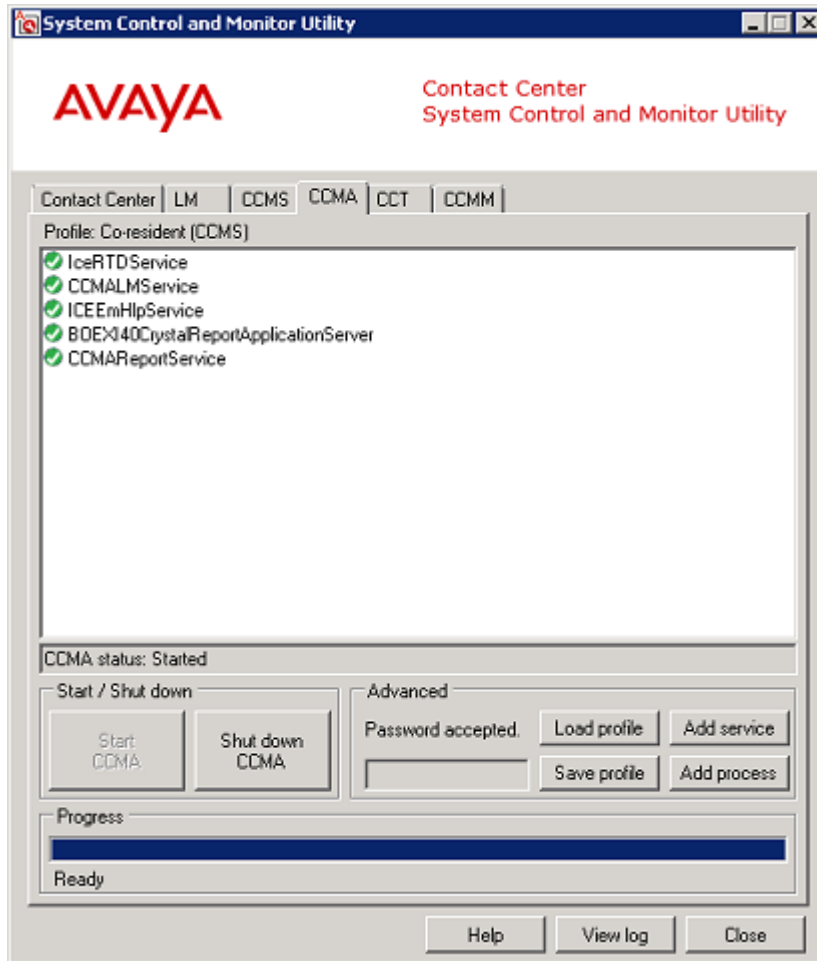
4. Select the **LM** tab, and verify that the Contact Center License Manager service is running.



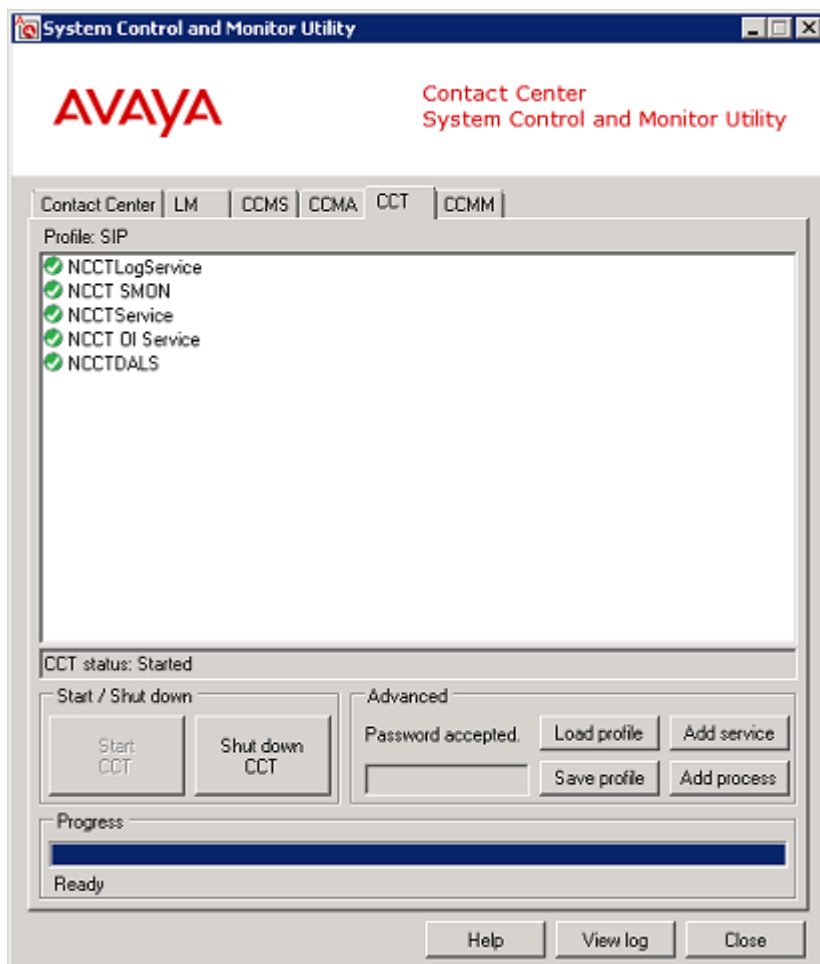
5. Select the **CCMS** tab, and verify that the Contact Center Manager Server services are running.



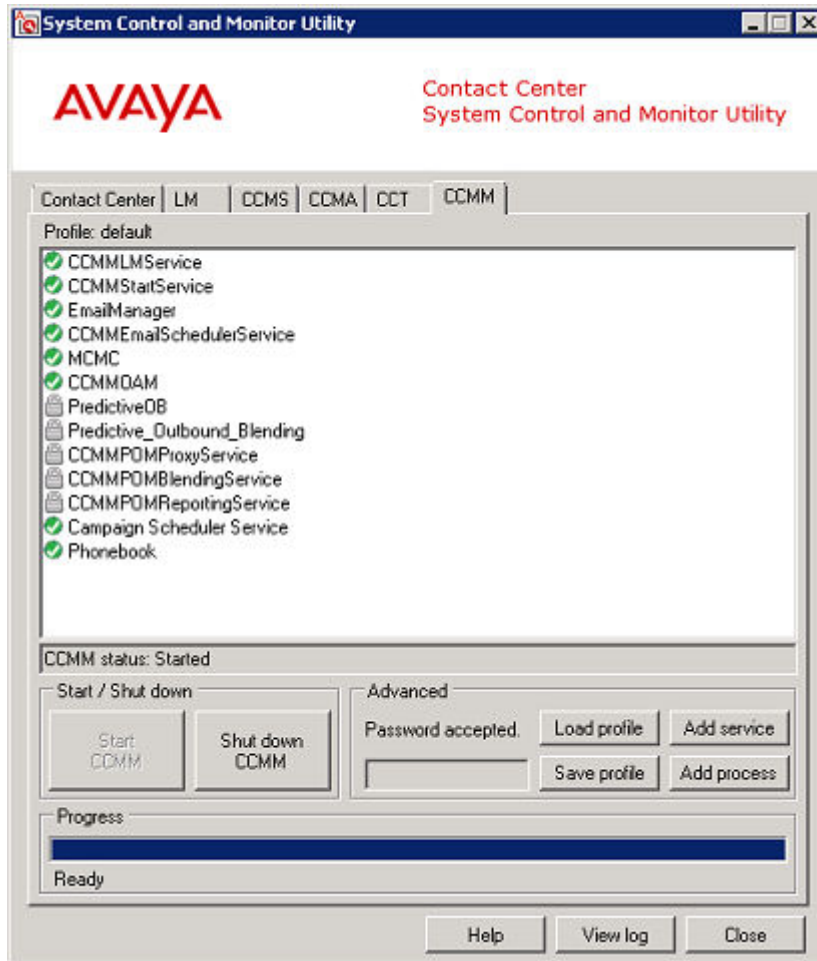
6. Select the **CCMA** tab, and verify that the Contact Center Manager Administration services are running.



7. Select the **CCT** tab, and verify that the Communication Control Toolkit services are running.



8. Select the **CCMM** tab, and verify that the Contact Center Multimedia services are running.



9. Click **Start Contact Center** to start any stopped services.

Checking that the SIP User Extension Number is acquired on IP Office

Before you begin

- Know the IP Office Manager log on details.
- Know how to use IP Office Manager.

About this task

Check that the SIP User Extension Number is acquired on IP Office. Avaya Contact Center Select uses this SIP User Extension Number to register with IP Office for CTI call control and SIP session messaging.

Procedure

1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the **Configuration** pane, under the IP Office server, select **User**.
3. Locate the SIP User Extension Number used to register Avaya Contact Center Select.

The screenshot shows the 'User' configuration window in IP Office Manager. The 'User' tab is active. The 'Name' field contains '6000'. The 'Password' and 'Confirm Password' fields are masked with 'www'. The 'Account Status' dropdown is set to 'Enabled'. The 'Extension' field contains '6000'. The 'Device Type' field at the bottom is highlighted with a red box and contains 'Avaya Contact Center Select'. Other fields like 'Full Name', 'Email Address', 'Locale', 'Priority' (5), 'System Phone Rights' (None), 'ACCS Agent Type' (None), and 'Profile' (Basic User) are also visible. A list of checkboxes for various features is at the bottom, including 'Receptionist', 'Enable Softphone', 'Enable one-X Portal Services', 'Enable one-X TeleCommuter', 'Enable Remote Worker', 'Enable Flare', 'Enable Mobile VoIP Client', 'Send Mobility Email', and 'Ex Directory'.

4. If Avaya Contact Center Select is registered with IP Office, the **Device Type** for the SIP User is configured as **Avaya Contact Center Select**.
5. If Avaya Contact Center Select is not registered with IP Office, ensure the SIP User Extension Number and password details in IP Office match the details entered when installing Avaya Contact Center Select.

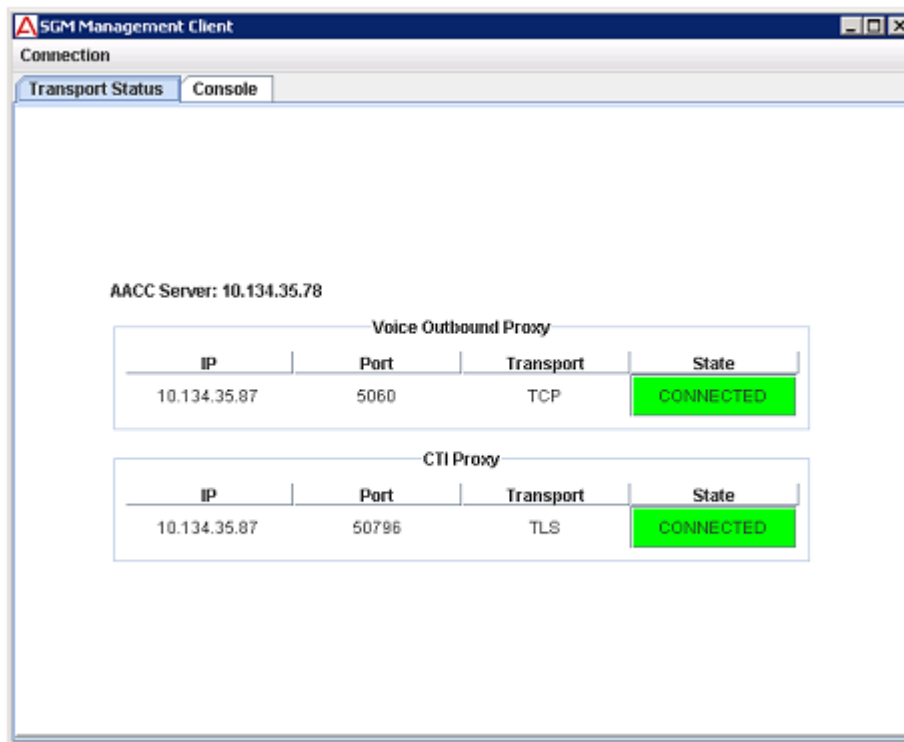
Checking the Contact Center connection to IP Office

About this task

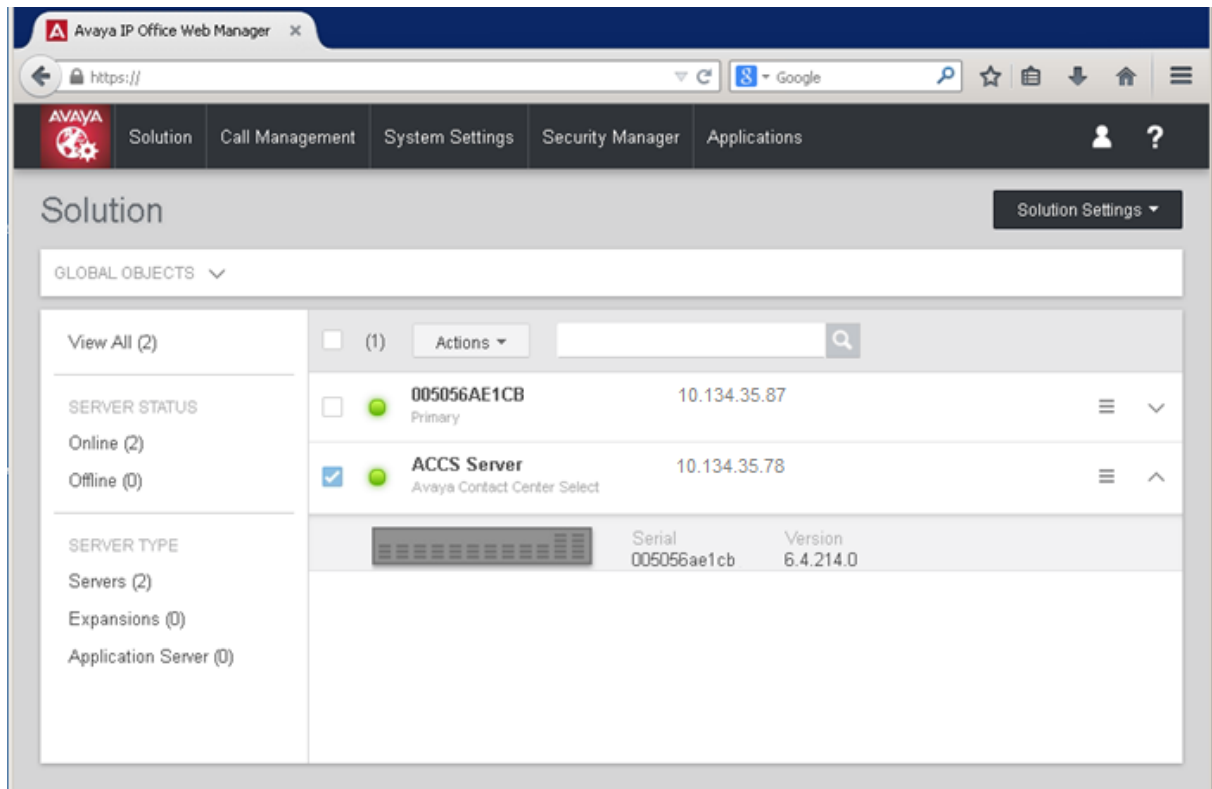
Check the CTI call control and SIP session management connection from Avaya Contact Center Select (ACCS) to IP Office.

Procedure

1. On the Avaya Contact Center Select server, click **Start > All Programs > Avaya > Contact Center > Manager Server > SGM Management Client**.
2. In the **New Connection** window, click **Connect**.



3. Ensure the Voice Outbound Proxy State is **CONNECTED**.
4. Ensure the CTI Proxy State is **CONNECTED**.
5. If your solution is using IP Office Release 9.1 or later, log on to IP Office Web Manager and locate the ACCS server in the **Solution** pane. If IP Office is communicating with ACCS, the ACCS server is listed on the **Solution** pane.



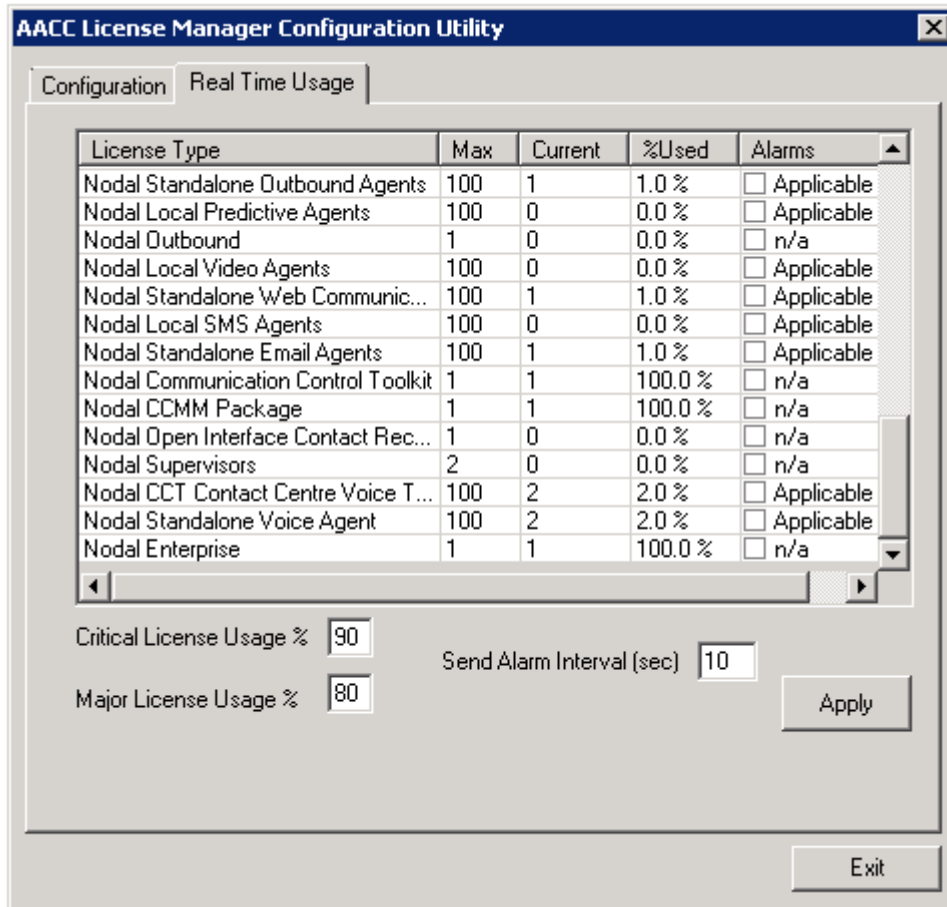
Checking the Contact Center License Manager real time usage

About this task

Check the real time usage of your contact center licenses to determine whether the necessary licenses for your Avaya Contact Center Select features are present.

Procedure

1. On the **Start** menu of your Avaya Contact Center Select server, choose **All Program > Avaya > Contact Center > License Manager > Configuration**.
2. In the Contact Center Licensing window, click the **Real Time Usage** tab.



3. Ensure the license types necessary for your Avaya Contact Center Select features are present.

Using the CCMM dashboard

About this task

Use the CCMM dashboard to verify that Avaya Contact Center Select is communicating with the email server and is monitoring the recipient mailbox.

Procedure

1. Log on to the Avaya Contact Center Select server.
2. Click **Start > All Programs > Avaya > Contact Center > Multimedia Server > Multimedia Dashboard**.
3. Ensure Avaya Contact Center Select is communicating with the inbound email server.
4. Ensure Avaya Contact Center Select is monitoring the recipient mailbox.

Troubleshooting Contact Recording

About this task

Avaya Contact Center Select (ACCS) supports IP Office Contact Recording. IP Office uses User Rights to configure and restrict how the ACCS users access and use Contact Recording. User Rights act as templates for users, locking selected user settings to the template value. Some settings are grouped and are set and locked as a group.

The following table shows the default IP Office User Rights for Avaya Contact Center Select (ACCS):

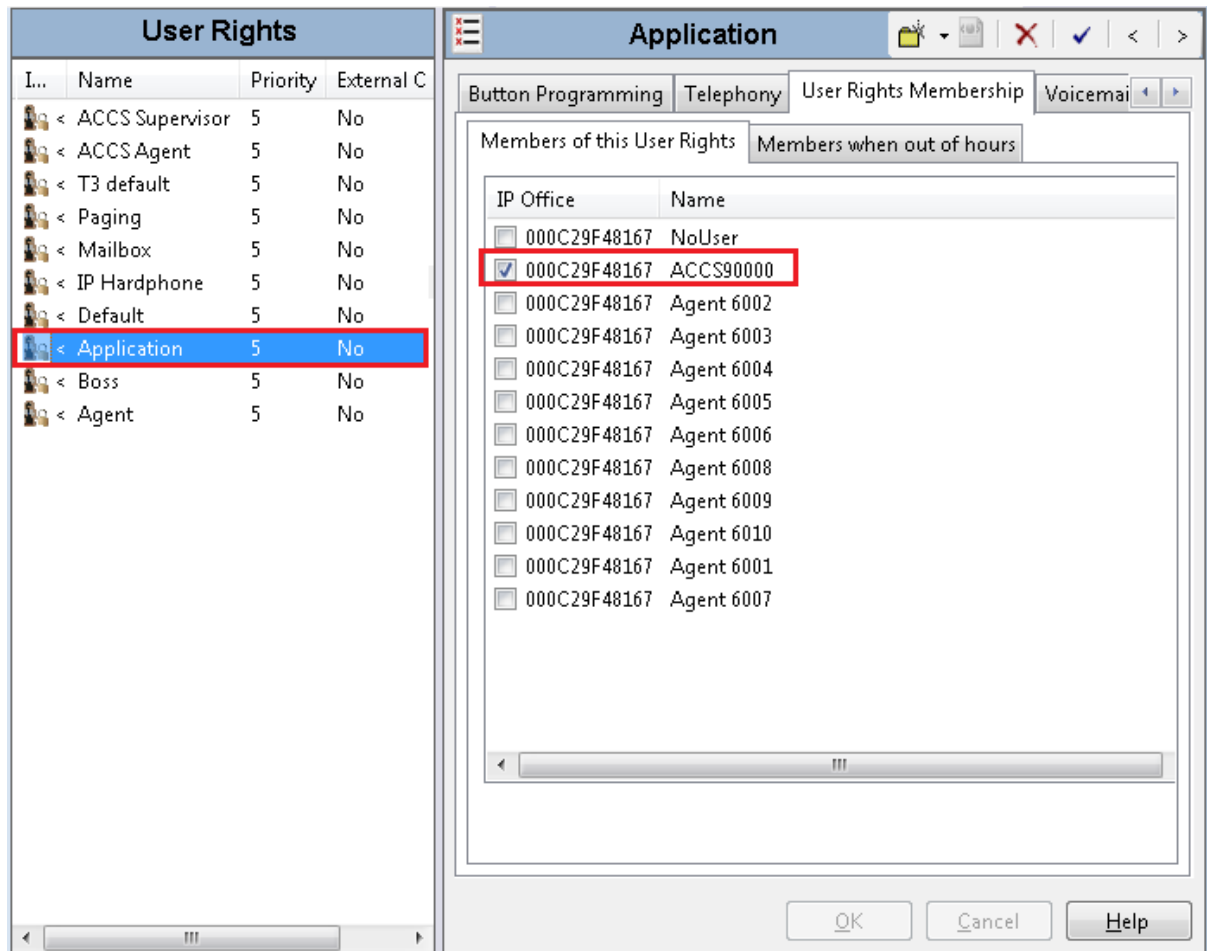
ACCS Resource	IP Office User Rights
ACCS SIP User Extension	Application
Agent	ACCS Agent
Supervisor agent	ACCS Supervisor

Verify that the IP Office User Rights for ACCS are configured correctly.

Procedure

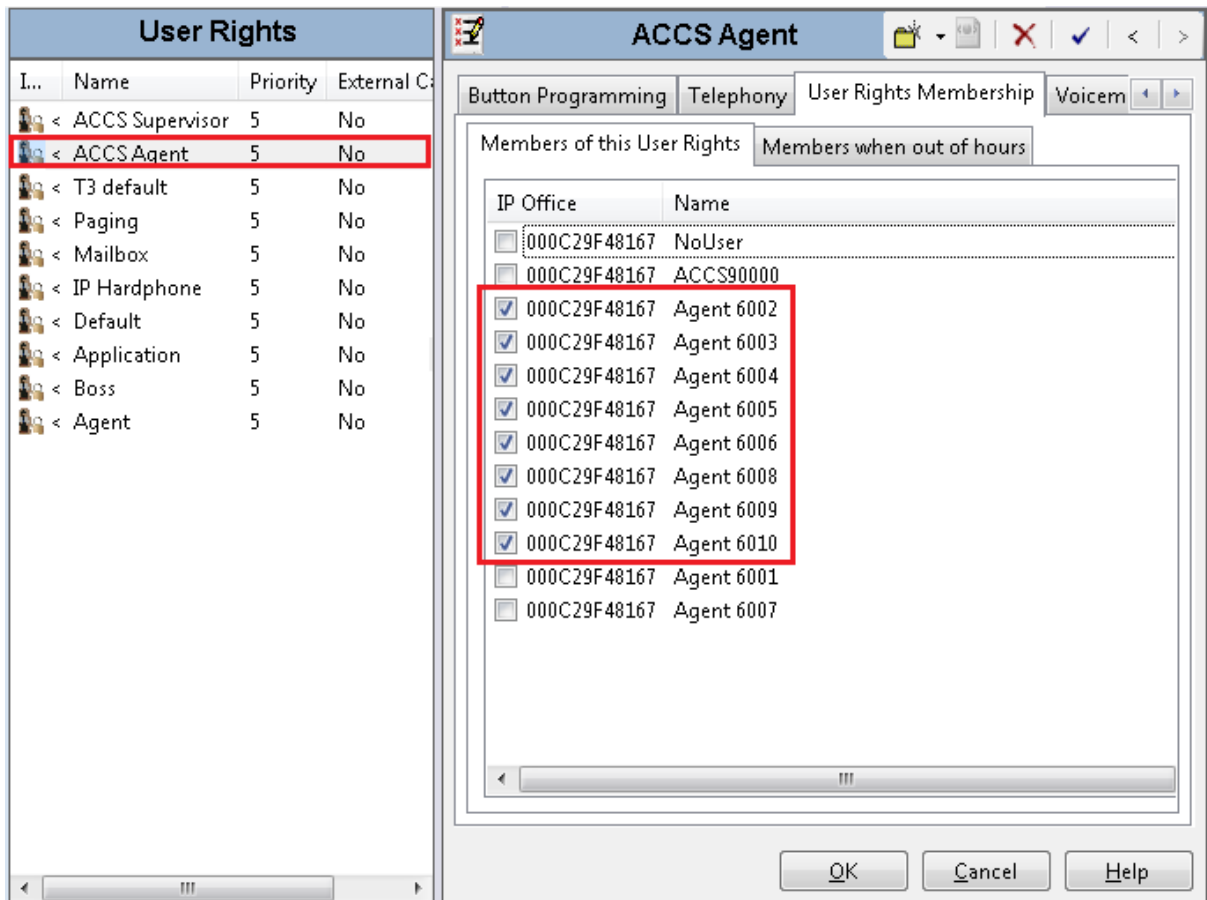
1. Using IP Office Manager, select the IP Office server in the **Configuration** pane.
2. In the Configuration pane, under the **Solution** node, select **User Rights**.
3. In the middle pane, select **Application**.

4. Ensure the Avaya Contact Center Select SIP User Extension is assigned to the **Application** — **User Rights**.



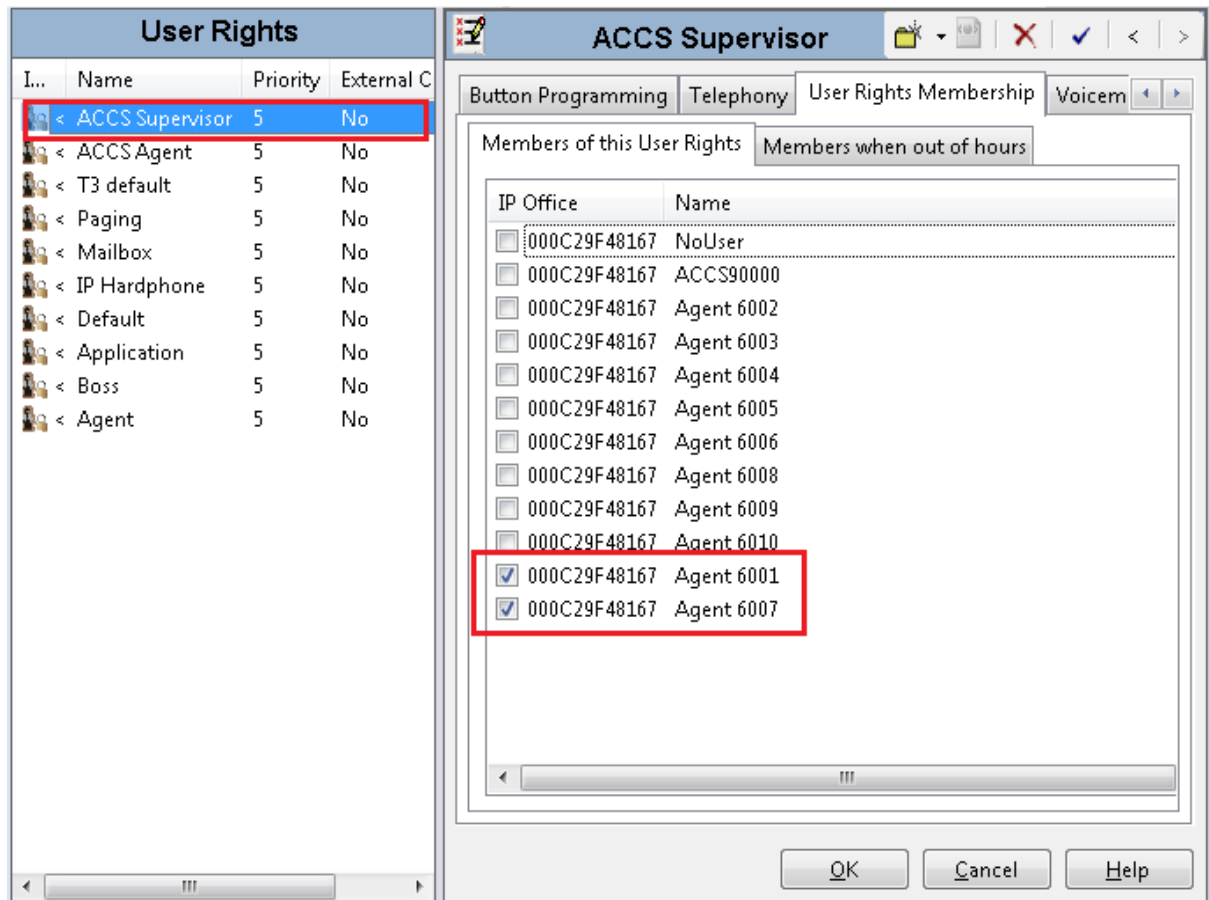
5. In the middle pane, select **ACCS Agent**.

6. Ensure the Avaya Contact Center Select agents are assigned to the **ACCS Agent — User Rights**.



7. In the middle pane, select **ACCS Supervisor**.

8. Ensure the Avaya Contact Center Select agents are assigned to the **ACCS Supervisor** — **User Rights**.



Appendix A: VMware Best Practices

VMware Best Practices for performance

The following sections describe some of the Best Practices for VMware performance and features.

BIOS settings

For details on BIOS settings to improve the environment for latency-sensitive workloads for an application, see the Best Practices for Performance Tuning of Latency-Sensitive Workloads in vSphere VMs technical white paper at <http://www.vmware.com>.

The following are the best performance BIOS settings for a few specific servers from the VMware-certified server list. In general, turn off power-saving server options for optimal performance. Consult the manufacturer technical data for your particular server.

Intel Virtualization Technology support

Intel CPUs require EM64T and Virtualization Technology (VT) support in the chip and in the BIOS to run 64-bit virtual machines.

All Intel Xeon processors feature:

- Intel Virtualization Technology
- Intel Extended Memory 64 Technology
- Execute Disable Bit

Ensure that VT is enabled in the host system BIOS. The feature might be called VT, Vanderpool Technology, Virtualization Technology, VMX, or Virtual Machine Extensions.

Note:

The VT setting is locked (either on or off) at boot time. After enabling VT in the system BIOS, save your changes to the BIOS settings and exit. The host server reboots, and the BIOS changes takes effect.

Other suggested BIOS settings

Servers with Intel Nehalem class and newer Intel Xeon CPUs also offer two power management options: C-states and Intel Turbo Boost.

- Disabling C-states lowers latencies to activate the CPUs from halt or idle states to full power on.

- Intel Turbo Boost steps up the internal frequency of the processor if the workload requires more power. The default for this option is enabled. Do not change the default.

These settings depend on the OEM make and model of the server. The BIOS parameter terminology for current Dell and HP servers are described in the following sections. Other server make and models can have other terminology but equivalent BIOS controls.

Dell PowerEdge Servers — BIOS settings

When the Dell server starts, you select F2 to display the system setup options. The following are the recommended BIOS settings for the Dell PowerEdge servers:

- Set the Power Management Mode to **Maximum Performance**.
- Set the CPU Power and Performance Management Mode to **Maximum Performance**.
- Under Processor Settings, set **Turbo Mode** to **enable**.
- Under Processor Settings, set **C States** to **disabled**.

HP ProLiant Servers — BIOS settings

The following are the recommended BIOS settings for the HP ProLiant servers:

- Set the Power Regulator Mode to **Static High Mode**.
- Disable **Processor C-State Support**.
- Disable **Processor C1E Support**.
- Disable **QPI Power Management**.
- Enable **Intel Turbo Boost**.

VMware networking best practices

There are many different ways of configuring networking in a VMware environment. Review the VMware networking best practices documentation before deploying Avaya applications on an ESXi host. This section is not a substitute for the VMware documentation. For improved performance and best practice, Contact Center uses Network Adapter type VMXNET 3.

The following are some suggested networking best practices:

- Separate network services to achieve greater security and performance. Create a vSphere *Standard Switch* with dedicated NICs for each service. Separate VMware Management, iSCSI (SAN traffic), and VM networks to separate physical NICs. If separate switches are not possible, consider port groups with different VLAN IDs.
- All physical NICs that are connected to the same vSphere *Standard Switch* must be connected to the same physical network.
- Configure all VMkernel vNICs to the same MTU (IP Maximum Transmission Unit).
- Configure Contact Center to use Network Adapter type VMXNET 3.

For more information about VMware networking best practices, refer to the VMware documentation.

VMware Tools

VMware Tools are included as part of the application OVA. The tools are a suite of utilities that enhances the performance of the guest operating system on the virtual machine and improves the management of the virtual machine.

The tools provide:

- VMware Network acceleration
- Host to Guest time synchronization
- Disk sizing
- Startup/Shutdown

 Note:

Do not upgrade the VMware tools software which is packaged with each OVA unless instructed to do so by Avaya.

Network Time Protocol and time configuration

For accurate time keeping, use the Network Time Protocol (NTP) as a time source instead of the ESXi hypervisor.

The NTP servers can be local to the LAN or over the Internet. If the NTP servers are on the Internet, the corporate firewall must open UDP port 123 so that NTP service can communicate with the external NTP servers.

Troubleshooting VMware

Virtualization platform performance issues can result with Contact Center performance problems. The virtualization platform includes the host and the running virtual machines on the host. Contact Center performance problems can include but are not limited to high CPU usage, link instability, defaulted or abandoned calls.

You must logically and systematically investigate any Contact Center performance issues to rule out virtualization performance problems. All deviations from the published specifications must be investigated and resolved before the Contact Center software investigation is initiated. For more information, refer to the VMware vSphere documentation.

To support troubleshooting VMware resourcing issues, collect information about the following VMware Key Performance Indicators (KPIs).

VMware vSphere Host KPIs:

- Physical CPU
 - PCPU - Physical CPU usage.

- CPU load average - Average CPU load average of host.
- Physical Memory
 - SWAP/MB - Memory swap usage statistics.

VMware vSphere Virtual Machine (VM) KPIs:

- vCPU
 - CPU RDY - Time VM was ready to run, but was not provided CPU resource.
 - CPU WAIT - Percentage of time spent in the blocked or busy wait state.
 - AMIN - Reservation allocated.
 - ASHRS - CPU shares allocated.
 - CPU CSTP - Amount of time a Symmetric Multi-Processing (SMP) VM was ready to run, but was delayed due to co-vCPU scheduling contention.
- Disk I/O
 - GAVG - Average guest operating system read latency per read operation.
 - DAVG/rd - Average device read latency per read operation.
 - DAVG/wr - Average device write latency per write operation.
 - RESETS/s - Number of commands reset per second.
 - ABRTS/s - Number of disk commands abandoned per second.
- Network
 - %DRPTX - Percentage of packets dropped when transmitting.
 - %DRPRX - Percentage of packets dropped when receiving.
- Memory
 - MCTLSZ - Amount of physical memory reclaimed memory balloon statistics.

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