



Deploying IP Office Server Edition Solution IP Office 8.1

15-604134
December 2012

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Using a cell, mobile, or GSM telephone, or a two-way radio in close proximity to an Avaya IP Telephone might cause interference.

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Chapter 1: Introduction

Purpose

This document provides deployment procedures for installing and configuring a solution based on a verified reference configuration. It includes installation, configuration, initial administration, troubleshooting, and basic maintenance checklists and procedures.

Intended audience

This document is intended to be used by anyone who is responsible for deploying a solution at a customer site. The checklists and procedures are based on a verified reference configuration. This document does not include optional or customized aspects of a configuration.

Document changes since last issue

The following changes have been made to the document since the last issue:

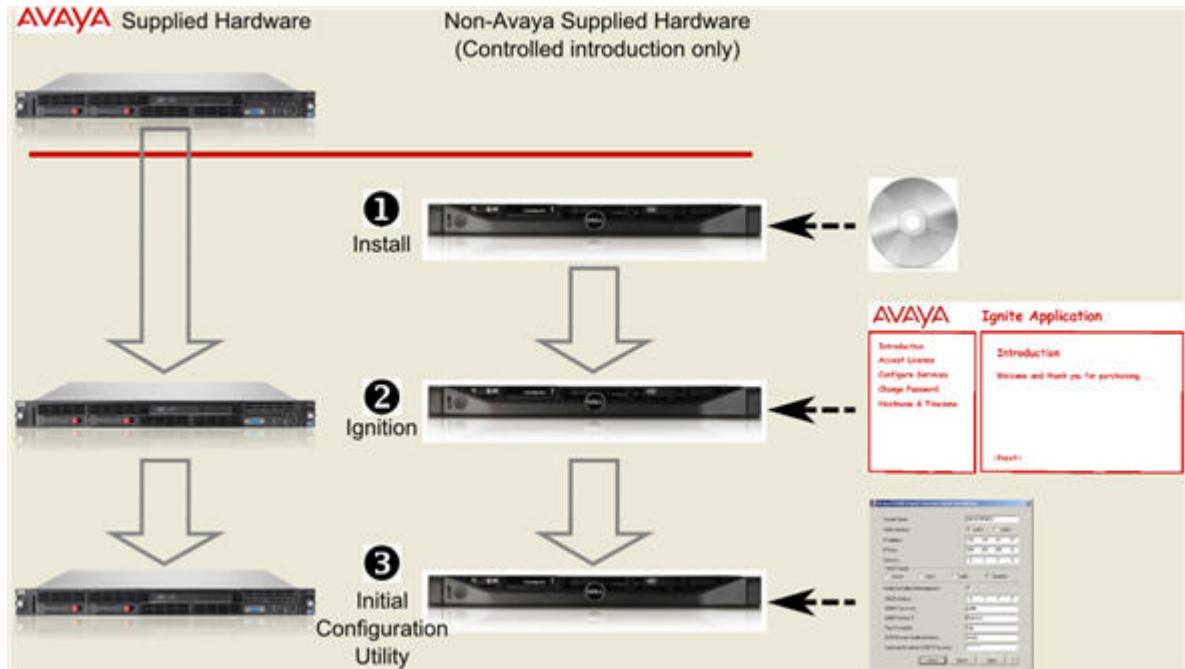
- Server Edition certificate management
- Preferred / Advanced edition comparison
- Expansion system - V2 / Linux comparison
- LAN Support
- ICU data retention

Related documents

	Document	Document ID
1	IP Office Manager	15-601011
2	Administering Voicemail Pro	15-601131
3	Administering one-X Portal for IP Office	15-601139
4	Installing one-X Portal for IP Office	15-601140
5	Avaya IP Office Implementing Voicemail Pro	15-601064
6	Avaya IP Office SSL VPN Solutions	—
7	IP Office Server Edition Reference Configuration	15-604135
8	IP Office Server Edition Solution Overview	15-604133

Deploying an IP Office Server Edition Solution

About this task



* Note:

You can install the software for an IP Office Server Edition Solution only on the servers that Avaya supports. Avaya does not provide support for the software for an IP Office Server Edition Solution that you install on any other servers. For more information, about the servers that Avaya supports, see the *Reference Configuration* document.

To deploy an IP Office Server Edition Solution the key steps that you need to perform are:

Procedure

1. If you have not purchased a pre-installed server from Avaya, then install IP Office Server Edition Solution on IP Office Server Edition server.
2. Configure the role of the server using the ignition process.
3. Configure the server using the Initial Configuration Utility.
4. Add the optional components such as Server Edition Secondary and Server Edition Expansion System.
5. Upgrade to the latest Server Edition Software release if a new version is available.

6. Add the licenses for Server Edition Secondary and Server Edition Expansion System.
 7. Administer the various components using the Web Control and IP Office Server Edition Manager.
-

Chapter 2: Installing IP Office Server Edition server

Server Edition Primary server

The Server Edition Primary is a server where you can add up to 500 users, IP trunking, and 128 conference channels. The primary server is the only hardware component that you need to deploy an IP Office Server Edition Solution. The primary server manages all the components of the IP Office Server Edition Solution, as and when you scale up.

You can configure a 270393/DL360 and a 270395/DL120 as a Server Edition Primary server. On a 270393/DL360 server you can add 500 users and on a 270395/DL120 server you can add 250 users. For more information about capacity and specifications, see *IP Office Server Edition Reference Configuration* document.

Installing or upgrading IP Office Server Edition server

You can install or upgrade the IP Office Server Edition manually using the install DVD. If you have purchased a pre-installed IP Office Server Edition server, then you can skip this step and proceed to *Configuring IP Office Server Edition using the ignition process*.

Before you begin

You need IP Office Server Edition installation DVD and IP Office Server Edition server.

Tip:

You can order the latest version of the IP Office Server Edition installation DVD from Avaya or download the latest version from [http:// support.avaya.com](http://support.avaya.com).

For more information about the specification of the server, see *IP Office Server Edition Reference Configuration* guide.

About this task

Note:

In this installation process the system purges everything that is already on the server including the operating system and all user data.

To install or upgrade the IP Office Server Edition:

Procedure

1. Insert the installation DVD in the DVD drive of the of the IP Office Server Edition server.
2. Restart the IP Office Server Edition server.

*** Note:**

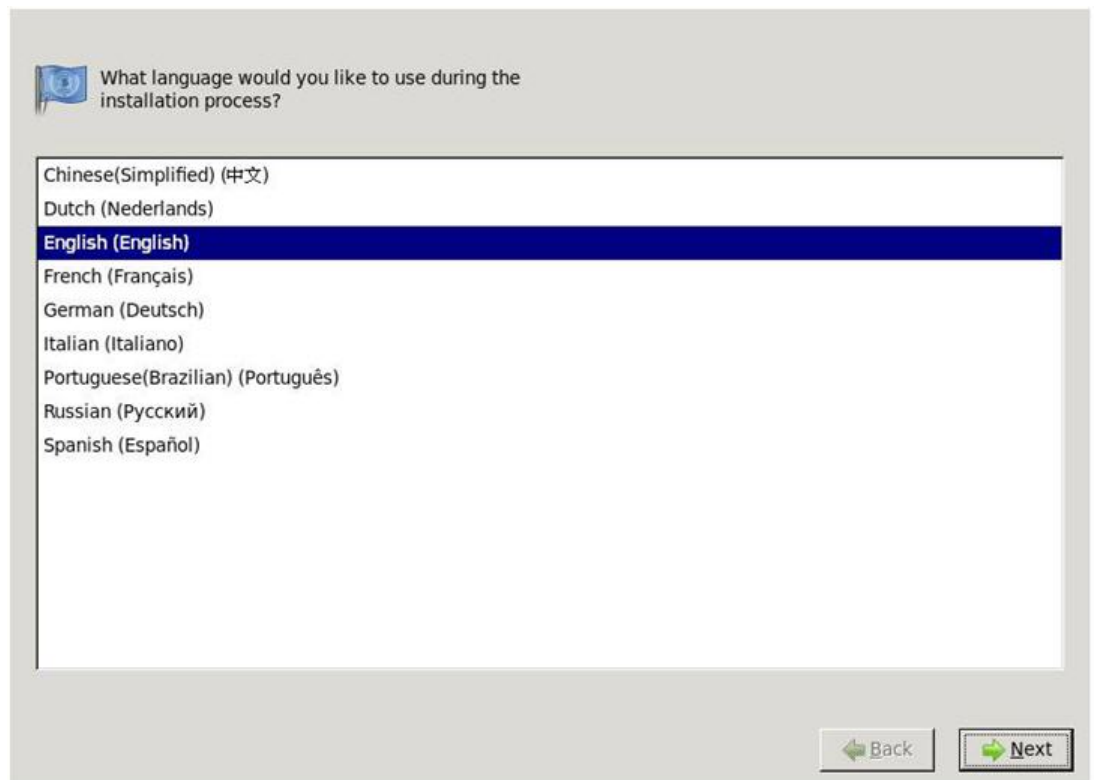
To restart the IP Office Server Edition server, always use Web Control. For more information, see [Restart the server using Web Control](#) on page 102. For a new installation, turn off the power supply to the server.

The system restarts and boots from the Server Edition installation DVD.

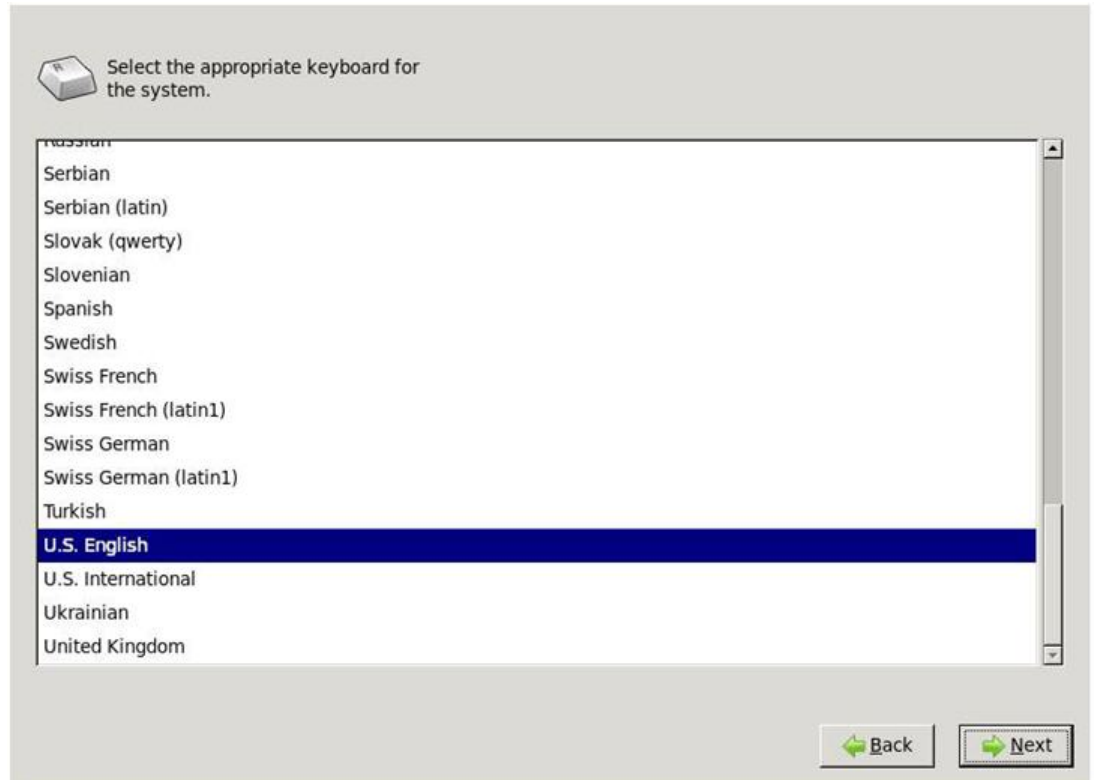
*** Note:**

If the system does not restart or boot from the Server Edition installation DVD, then verify the boot order in BIOS settings.

3. Click **Change Language** to select the language that you would like to use during the installation or upgrade process.



4. Click **Next**.
5. Select the type of keyboard you would like to use for the system.



6. Click **Next**.
7. Select the language in which you would like to read the End User License Agreement (EULA).
8. Click **OK**.
9. Click **Yes, I have read, understood and accepted the terms of Avaya EULA**.
 - Click **No, I decline** if you do not agree with Avaya EULA. The system cancels the software installation process.



10. Click **Next**.

The system prompts you to install or upgrade. If you are installing IP Office Server Edition on a server in which IP Office Server Edition is already installed, then the system displays the details of the applications that are already installed on a IP Office Server Edition server. The system also displays the details of the applications that the system will install.

Related topics:

[Installing IP Office Server Edition server](#) on page 17

[Adding a Secondary server](#) on page 33

[Adding a Server Edition Expansion System \(V2\)](#) on page 37

[Adding a Server Edition Expansion System \(L\)](#) on page 39

[Operating system support](#) on page 52

[Adding a license](#) on page 52

[Configuring IP Office Server Edition systems in Avaya one-X Portal for IP Office](#) on page 69

[Upgrading the components in the IP Office Server Edition Solution](#) on page 97

[Upgrading the system using a DVD](#) on page 98

[Restarting the server using Web Control](#) on page 102

Installing IP Office Server Edition server

Before you begin

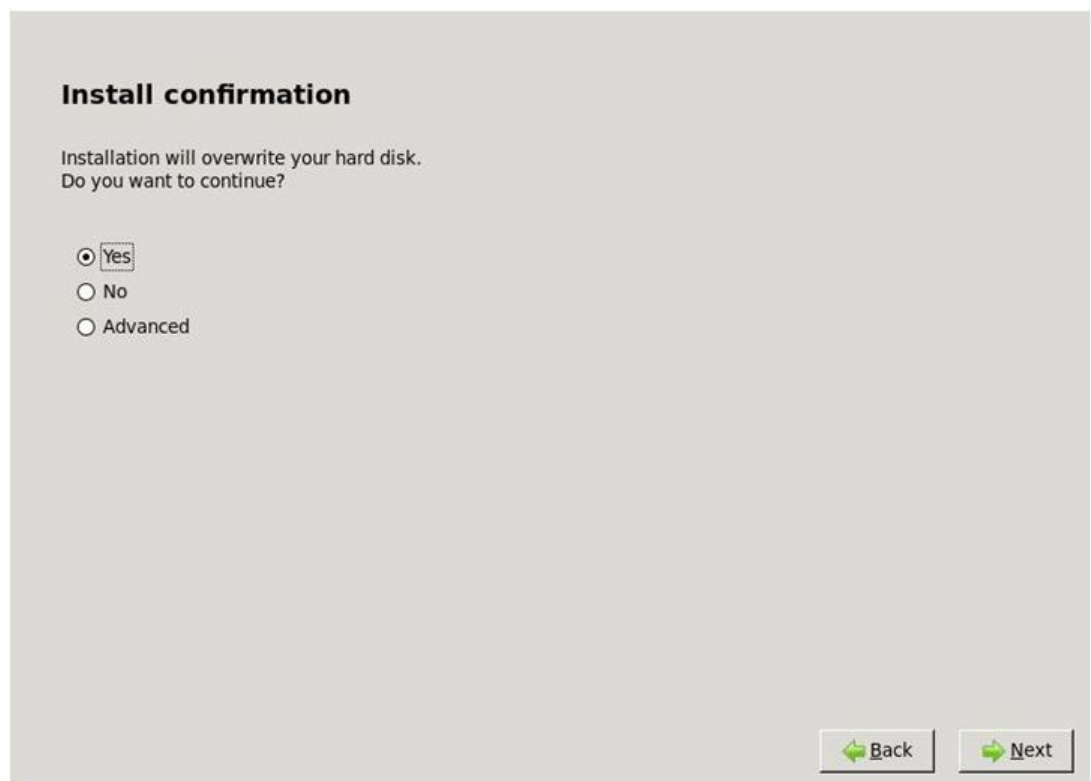
Ensure that you have completed all the steps in [Installing or upgrading IP Office Server Edition server](#) on page 13.

About this task

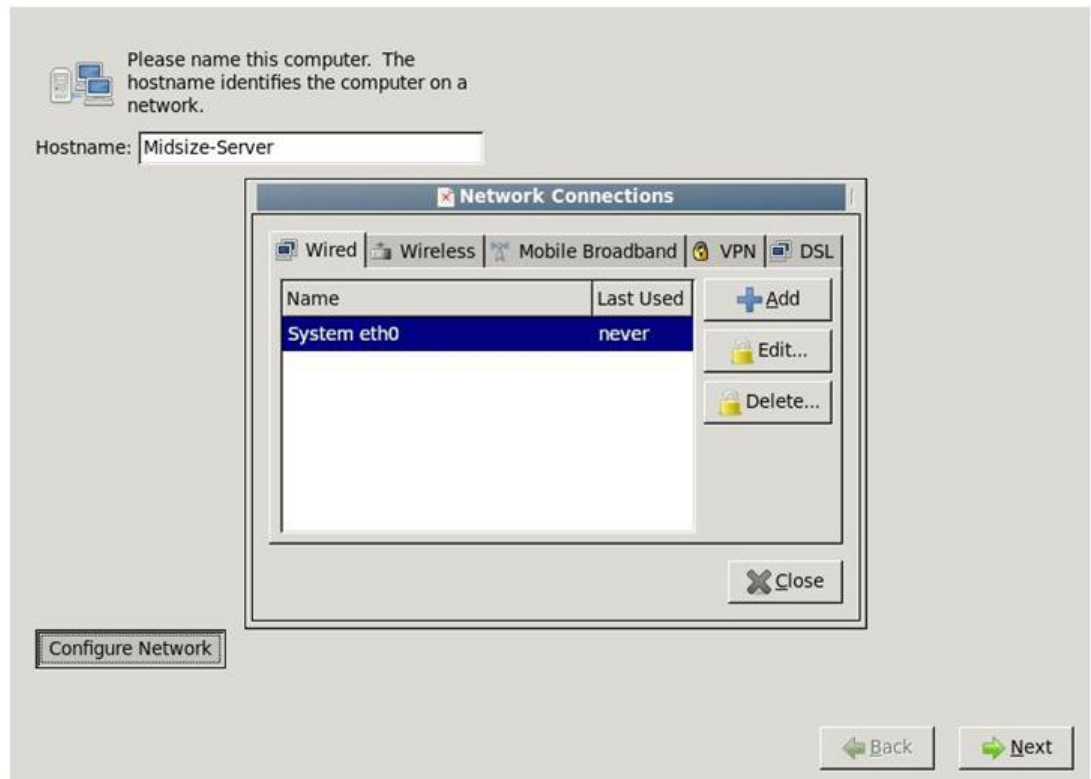
To install the IP Office Server Edition:

Procedure

1. Select **Install** if you want the system to replace the applications that are already installed.
2. Click **Next**.
3. Do one of the following:
 - Select **Yes** if you want to continue with the installation.
 - Select **No** if you do not want to continue with the installation.
 - Select **Advanced** if you want to configure addition settings such as hardware partitioning.



4. Click **Next**.
5. Type the name of the IP Office Server Edition server in the **Hostname** field.
The system identifies the IP Office Server Edition by the name that you type in the **Hostname** field. The server advertises this name in the network. Ensure that the **Hostname** is unique within the network domain. It can be a string of characters that is 63 characters in length. The characters can be upper case or lower case letters A through Z, digits 0 through 9, the minus sign (-), and the period (.).
6. Click **Configure Network**.



The system displays the network interfaces that are connected to the IP Office Server Edition in the **Network Connections** window.

*** Note:**

You cannot configure the VPN network interfaces using the **VPN** tab in IP Office Server Edition.

7. Select the network connection that the system has identified.
 - To edit the configuration of the network connection click **Edit**. You can assign the IP address for the network connection using the DHCP.
 - To delete the network connection click **Delete**.

The default configuration settings for the network connection for *System eth0* are as follows:

- Connection name: System eth0
- IP address: 192.168.42.1
- Netmask: 255.255.255.0
- Gateway: 0.0.0.0

The default configuration settings for the network connection for *System eth1* are as follows:

- Connection name: System eth1
- IP address: 192.168.43.1
- Netmask: 255.255.255.0
- Gateway: 0.0.0.0

8. Click **Close** to close the **Network Connections** window.
9. Click **Next**.
10. Type the password for the root user in **Root Password** field.



11. Retype the password in the **Confirm** field.
The system displays a warning message if the strength of the password is weak.

*** Note:**

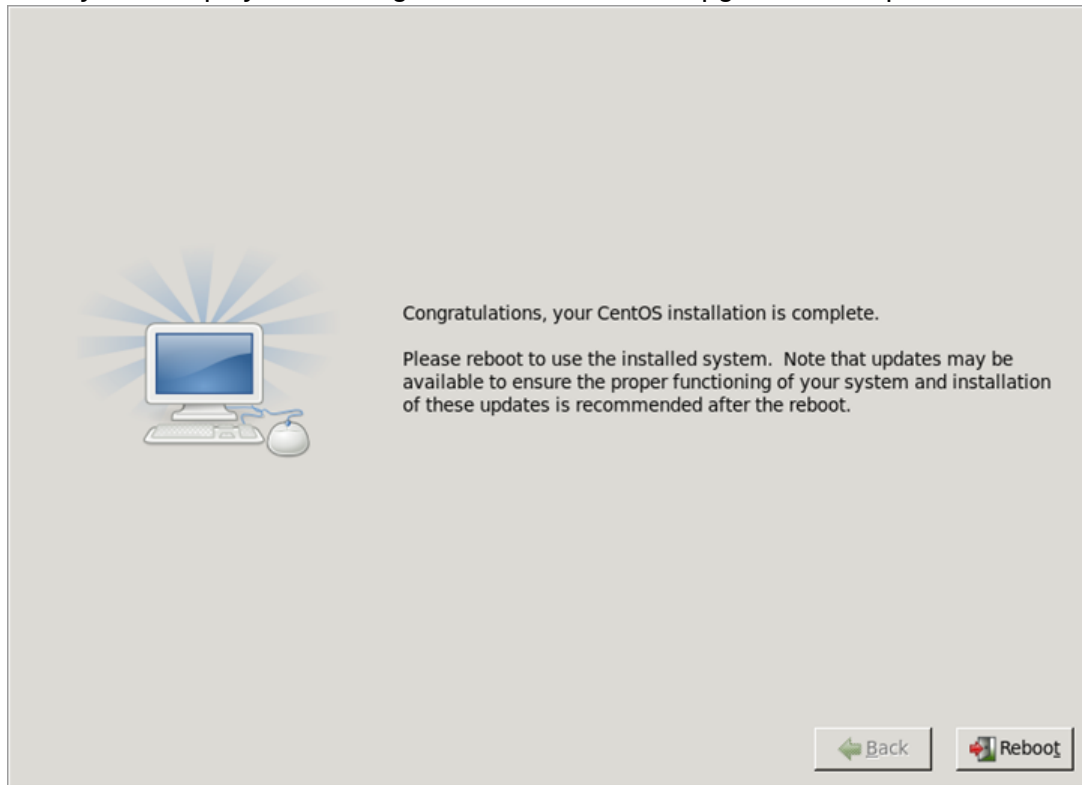
Make a note of the password that you set for root user because you cannot recover or reset the password for a root user later during the installation, if you forget the password.

12. Click **Next**.

The system displays the progress of the installation. The installation process can take up to 30 minutes

Result

The system displays a message if the installation or upgrade is complete.



Next steps

Remove the installation DVD from the DVD drive and click **Reboot**. Log in to the sever using the web browser on another computer in the network.

Configuring IP Office Server Edition using the ignition process

The system displays the Ignition menu the first time you log into the Web Control of the Linux based IP Office Server Edition server. You can set and confirm various key settings such as the role of the server. For example, you can set the role of the server as primary, secondary, expansion, or Avaya one-X® Portal for IP Office.

 Note:

You can run the Ignition process only once and you cannot rerun the Ignition process unless you re-install the server completely.

If the Ignition process is not completed. For example, if you click the **Cancel** button. The system displays the Ignition menu when you login the next time.

 Note:

The default configuration settings for an Avaya server on which IP Office Server Edition is already installed is as follows:

- DHCP Mode: Off
- IP address (eth0/LAN1): 192.168.42.1
- IP address (eth1/LAN2): 192.168.43.1
- Netmask: 255.255.255.0
- Gateway: 0.0.0.0
- Hostname: The eth0 MAC address of the server
- DNS1: Blank
- DNS2: Blank
- Root Password: Administrator

The default configuration settings for the server on which you install the IP Office Server Edition manually are the values that you set during the installation process.

Before you begin

You can access the Web Control using a variety of browsers. Some of the browsers that you can use to access Web Control are:

- Internet Explorer version 8 and version 9
- FireFox version 13
- Google Chrome version 18

- Opera version 11
- Safari version 5

*** Note:**

You must not access Web Control using the mobile versions of these browsers.

About this task

To start the ignition process:

Procedure

1. On a client computer, start the browser and type *https://<IP address of IP Office Server Edition> : 7070*



The system displays the SID of the IP Office Server Edition server only when you log in for the first time using the browser. You can also select the language in which you want to proceed with the ignition process.

2. Log in as *Administrator*.

The user name is *Administrator* and the default password is *Administrator*. You must change the default password later to ensure that the system is secure.

The system displays the introduction page.



3. Click **Next**.



4. In the **Accept License** page select **I Agree**.

5. Click **Next**.

AVAYA IP Office Server Edition - Ignition

Introduction
Accept License
● **Server Type**
Configure Network
Time & Companding
Change Password
Review Settings

☒ **Primary** Enables Core, one-X Portal and Voicemail Pro.
Recommended: Dual 2.4GHz 4-core CPU, 12GB RAM, 300GB HDD, 2x Ethernet ports, 1x DVD, 1x USB

☐ **Secondary** Enables Core and Voicemail Pro.
Recommended: Dual 2.4GHz 4-core CPU, 12GB RAM, 300GB HDD, 2x Ethernet ports, 1x DVD, 1x USB

☐ **Expansion** Enables Core only.
Recommended: Single 3.1GHz 4-core CPU, 12GB RAM, 250GB HDD, 2x Ethernet ports, 1x DVD, 1x USB

☐ **one-X Portal** Enables one-X Portal only.
Recommended: Single 3.1GHz 4-core CPU, 12GB RAM, 250GB HDD, 2x Ethernet ports, 1x DVD, 1x USB

⚠ Using a different server specification without Avaya approval may affect performance.

Cancel Previous Next

To go back to the previous page, click **Previous**. If you do not want to proceed with the ignition process click **Cancel**.

6. In the **Server Type** page select the role of the server.

★ **Note:**

You cannot reset the type of server that you select after the ignition process is complete.

7. Click **Next**.

The system displays the default network configurations. Ensure that the network configuration details match that of the server for which assigned the role, else update the network configuration details.

The screenshot shows the 'Configure Network' step in the AVAYA IP Office Server Edition Ignition process. On the left is a sidebar with navigation links: Introduction, Accept License, Server Type, **Configure Network** (highlighted with a green dot), Time & Companding, Change Password, and Review Settings. The main area is titled 'IP Office Server Edition - Ignition' and shows 'Network interface: eth0'. It contains three sections: 'Assign IP Address' with fields for IP Address (192.168.1.5) and Netmask (255.255.255.0); 'Assign System Gateway' with a Gateway field (192.168.1.1); and 'Assign DNS Servers' with fields for Primary and Secondary DNS. Below these is a 'Hostname' field with the value 'Midsize-Server'. At the bottom are 'Cancel', 'Previous', and 'Next' buttons.

8. In the **Configure Network** page click **Next**.

The screenshot shows the 'Time & Companding' step in the AVAYA IP Office Server Edition Ignition process. The sidebar on the left now highlights 'Time & Companding' with a green dot. The main area is titled 'IP Office Server Edition - Ignition' and contains two sections: 'Use NTP' with a checked checkbox, an NTP Server field (0.pool.ntp.org), and date/time fields (2012-04-05 / 17 : 52); and 'Companding' with radio buttons for 'μ-law' and 'A-law' (selected). At the bottom are 'Cancel', 'Previous', and 'Next' buttons.

9. In the **Time & Companding** page:

- a. Select **Use NTP**.

*** Note:**

The system displays the **Use NTP** option in the Time & Companding page only when you assign the role of a server as Avaya one-X® Portal for IP Office or primary server. Ensure that you select **Use NTP** for the primary server.

- b. Select the type of **Companding**.

*** Note:**

The system does not display the **Companding** option in the Time & Companding when you assign the role of a server as Avaya one-X® Portal for IP Office.

Typically μ -law is for North America and Japan, A-law in Europe and other parts of the world. If you are not sure about the option that you need to select, please consult your service provider.

- c. Click **Next**.

AVAYA IP Office Server Edition - Ignition

It is strongly recommended that you change the root password.

☐ Use existing password

☒ Change password

New Password:

New Password (verify):

Password complexity requirements:

- must contain at least 8 characters.
- maximum character sequence length must be 4.

Cancel Previous Next

10. In the **Change Password** page:

- Select **Use existing password**.

*** Note:**

Change the password to ensure that the system is secure. However, to ensure that the Administrator password is in sync with the other passwords

of IP Office Server Edition Solution Avaya recommends that you change the password after configuring the IP Office Server Edition server.

- To change the existing password:

- Select **Change password**.
- Type a password in the **New Password** field.
- Retype a password in the **New Password (verify)** field.

Ensure that the password you type confirms to the requirements that are specified under **Password complexity requirements**.

*** Note:**

You can also change the password and the password complexity requirements anytime after the ignition process using the Web Control Panel.

- Click **Next**.

The system displays the details of the IP Office Server Edition server.

You can review the settings that you selected during the ignition process. To print the details of the IP Office Server Edition server, click **Print**.

IP Office Server Edition - Ignition	
System Identification:	6eec9af99edf1d24a0ca28d34b43fcbcd73f3740
Server Type:	Primary
IP:	192.168.1.5
Netmask:	255.255.255.0
Gateway:	192.168.1.1
Primary DNS:	
Secondary DNS:	
Hostname:	Midsize-Server
Timezone:	Europe/London
Use NTP:	Saving network settings
NTP Server:	0.pool.ntp.org
Companding:	A-law
Password:	Do not change

Print

Cancel Previous Apply

- Click **Apply**.

The system commits the settings after you click, **Apply**.

Result

The server restarts and the system displays the Web Control login page.

Next steps

Launch IP Office Server Edition Manager.

Launching IP Office Server Edition Manager

You can launch IP Office Server Edition Manager using the Web Control of the IP Office Server Edition server. In an IP Office Server Edition Solution where you have configured a Server Edition Secondary for resilience, you cannot launch IP Office Server Edition Manager using the Web Control of the Server Edition Secondary server, unless the Server Edition Primary server is down.

Note:

When you launch IP Office Server Edition Manager using the Web Control of the Server Edition Secondary server, you can manage only the systems that are online. After the Server Edition Primary server is up, you must synchronize the offline and online configurations.

Before you begin

To launch IP Office Server Edition Manager using Web Control install the Java Runtime Environment (JRE) Oracle version 1.6.x or 1.7.x

About this task

To launch the IP Office Server Edition Manager using the Web Control:

Procedure

1. Log in as *Administrator*.
2. In the **Home** tab click **Manage**.

Result

The system checks if the IP Office Server Edition Manager and Voicemail Pro client is not installed. The system also checks for the version of the IP Office Server Edition Manager and Voicemail Pro client that is installed. The system prompts you to download and install the latest version of IP Office Server Edition Manager and Voicemail Pro client:

- If version of the IP Office Server Edition Manager and Voicemail Pro client is not the latest.
- If IP Office Server Edition Manager and Voicemail Pro client is not installed.

Next steps

- Click **Yes** if you want to launch the current version IP Office Server Edition Manager that the system has detected.
- Download the latest version of IP Office Server Edition Manager that the system displays and install IP Office Server Edition Manager.

Note:

In the final step of the installation process, do not select the run Manager option.

Restart the browser after installing IP Office Server Edition Manager.

After you install the IP Office Server Edition Manager, to launch the IP Office Server Edition Manager directly from a personal computer, select **Start >Programs >IP Office >Manager**.

Related topics:

[Operating system support](#) on page 52

[Upgrading the components in the IP Office Server Edition Solution](#) on page 97

[Upgrading the system using a DVD](#) on page 98

[Restarting the server using Web Control](#) on page 102

Configuring IP Office Server Edition server using IP Office Server Edition Manager

This is the third and final stage in commissioning the IP Office Server Edition using the initial configuration utility in the IP Office Server Edition Manager.

Note:

You do not have to have to configure the Avaya one-X[®] Portal for IP Office using the initial configuration utility in the IP Office Server Edition Manager.

About this task

To configure IP Office Server Edition using IP Office Server Edition Manager:

Procedure

1. Launch IP Office Server Edition Manager.

2. Set the configuration of IP Office Server Edition server in Avaya IP Office Initial Configuration window.

- a. Set the **System Type** as **Server Edition Primary**, **Server Edition Secondary**, or **Server Edition Expansion**.
- b. Select **Retain Configuration Data** to retain the existing configuration data.
If you do not select **Retain Configuration Data**, the system sets the default
- c. Set the name to identify the system in the **System Name** field.
Typically to identify the configuration by the location or the name of the company. The Gatekeeper feature uses this name to identify the system. The name must be unique within any network of system. The **System Name** field is unique and you cannot use characters such as <, >, |, \0, :, *, ?, . or /.
- d. Set the default telephony and language settings for the system in the **Locale** field.
- e. Set the device IP of the system in the **Services Device ID** field.
The system displays this ID for the system in the Server Edition and System Inventory pages.
- f. Select the LAN interface for the system in the **LAN Interface** section.
- g. Set the IP address of the server in the **IP Address** field.
- h. Set the IP mask address of the server in the **IP Mask** field.
- i. Set the gateway address of the server in the **Gateway** field.
- j. Set the **DHCP Mode**.

- k. Type the IP address of the Server Edition Secondary server in the **Server Edition Secondary** field.
- l. Type the IP address of the DNS server in the **DNS Server** field.
- m. Click **Save** to save the configuration details that you set for the system.

For more details about setting the initial configuration in IP Office Server Edition Manager, see the *Initial Configuration Menus* section of the *IP Office Manager* document.

Chapter 3: Provisioning Server Edition Secondary server

Server Edition Secondary server

The Server Edition Secondary is an optional server where you can add an additional 500 users, IP trunking, and 128 conference channels. The secondary server provides resilience to the users, phones, hunt groups and voicemail configured on the primary server. The secondary server also provides resilience to the users and phones configured on an expansion system. The secondary server is the management access point when the primary server is offline.

You can configure a 270393/DL360 and a 270395/DL120 as a Server Edition Secondary.

 Note:

You must configure both the Server Edition Primary and Server Edition Secondary on either HP DL360G7 or HP DL120G7. You cannot have a combination of HP DL120G7 and HP DL360G7.

For more information about capacity and specifications, see *IP Office Server Edition Reference Configuration* document.

Adding a Secondary server

Before you begin

1. Install the IP Office Server Edition on the server that you want to add as a Server Edition Secondary server. If you have purchased a pre-installed IP Office Server Edition server, then you can skip this step and proceed to *Configuring IP Office Server Edition using the ignition process*
2. Set the role of the server as *Secondary* server in the ignition process.
3. Launch IP Office Server Edition Manager from the Web Control of the Server Edition Primary server.

About this task

To add a Secondary server to IP Office Server Edition Solution using the IP Office Server Edition Manager:

Procedure

1. Click **Secondary Server** in the **Add** section of the **Server Edition** window.
2. Enter the IP address of the Secondary server or browse for the secondary server in the **Add Secondary Server** dialog box.
3. Click **OK**.

If you have not configured a Server Edition Secondary server, then you can create an offline configuration. The system saves a copy of offline configuration in Server Edition Primary server. After you configure the Server Edition Secondary server, you can select the offline configuration that you saved.

- Click **Yes** if you want to create an offline configuration for the system.
- Click **No** if you do not want to create an offline configuration for the system.
- Click **Discard** if you do not want to add the configuration of the system.

For more information on creating an offline configuration, see the *IP Office Manager* document.

Result

The system displays the details of the Secondary server in the **Server Edition** window.

* Note:

When you configure the Server Edition Secondary server online, the system displays the status of the device as green in the **Server Edition** window. For more information on device and link status, see the *IP Office Manager* document.

When you add a Server Edition Secondary or a Server Edition Expansion System, you must administer Avaya one-X® Portal for IP Office to connect to the new system. For more information, see the *Configuring IP Office Server Edition systems in Avaya one-X® Portal for IP Office* section of this document.

Next steps

Add the licenses for the Server Edition Secondary server.

Related topics:

[Installing or upgrading IP Office Server Edition server](#) on page 13

[Adding a Server Edition Expansion System \(V2\)](#) on page 37

[Adding a Server Edition Expansion System \(L\)](#) on page 39

[Adding a license](#) on page 52

[Configuring IP Office Server Edition systems in Avaya one-X Portal for IP Office](#) on page 69

Removing a Secondary server

Before you begin

- Ensure that there are no active calls.
- Ensure that Voicemail Pro is not active on the Server Edition Secondary server.

Use Voicemail Pro client and switch the Voicemail Pro to the Server Edition Primary server.

- Ensure that phones and users are not active on the Server Edition Secondary server.

Use the System Status Application and switch the phones and users to the Server Edition Primary server.

About this task

To remove a secondary server that is a part of IP Office Server Edition Solution using IP Office Server Edition Manager:

Procedure

1. In the **Server Edition** window, right-click secondary server.
2. Select **Remove**.
3. Click **Yes** to confirm.
The system reboots the secondary server that you removed from the IP Office Server Edition Solution.

Result

The system does not list the secondary server in the **Server Edition** window.

Next steps

Save the changes that you made to the configuration.

Note:

If you do not save the configuration, when you reopen the configuration, the system lists the secondary server in the **Server Edition** window, and the status of the *Primary Link* as *Primary to Secondary*.

Chapter 4: Provisioning a Server Edition Expansion System

Server Edition Expansion System

The Server Edition Expansion System is an adjunct call system that you can add to a Server Edition Primary. The Server Edition Expansion System can be a Server Edition Expansion System (V2) that uses the IP500 V2 hardware or Server Edition Expansion System (L) that is based on the HP DL120G7 hardware. Server Edition Expansion System (L) supports only IP network and a maximum of an additional 500 users. The Server Edition Expansion System (V2) supports both analogue, TDM and IP networks, a maximum of an additional 384 users, and data features such as IP routes, NAT, Firewall, and IPsec. You can add up to 30 expansion systems to Server Edition Primary server and it can be any combination of Server Edition Expansion System (V2) or Server Edition Expansion System (L).

Adding a Server Edition Expansion System (V2)

Before you begin

1. Install the IP Office Server Edition on the server that you want to add as a Server Edition Expansion System server. If you have purchased a pre-installed IP Office Server Edition server, then you can skip this step and proceed to *Configuring IP Office Server Edition using the ignition process*
2. Set the role of the server as *Expansion* server in the ignition process.
3. Launch IP Office Server Edition Manager.
4. Configure the server using the initial configuration utility of the IP Office Server Edition Manager.

Note:

You can convert an existing IP500 V2 to Server Edition Expansion System (V2). For more information on converting an IP500 V2 to Server Edition Expansion System (V2), see the *IP500 V2 Conversion* section of the *IP Office Manager* document.

You can also configure the server using the initial configuration utility of the IP Office Server Edition Manager, save the configuration as offline and then configure the server using the ignition process.

About this task

To add a Server Edition Expansion System (V2) to IP Office Server Edition Solution using the IP Office Server Edition Manager:

Procedure

1. Click **Expansion System** in the **Add** section of the **Server Edition** window.
2. Enter the IP address of the expansion system or browse for the expansion system in the **Add Expansion System** dialog box.
3. Click **OK**.

If you have not configured a Server Edition Expansion System server, then you can create an offline configuration. The system saves a copy of offline configuration in Server Edition Primary server. After you configure the Server Edition Expansion System server, you can select the offline configuration that you saved.

- Click **Yes** if you want to create an offline configuration for the system.
- Click **No** if you do not want to create an offline configuration for the system.
- Click **Discard** if you do not want to add a configuration for the system.

For more information on creating an offline configuration see the *IP Office Manager* document.

4. Configure the expansion system using the initial configuration utility.
For more details about setting the initial configuration in IP Office Server Edition Manager, see the *IP Office Manager* document.

Result

The system displays the details of the new Server Edition Expansion System in the **Server Edition** window.

* Note:

When you configure the Server Edition Expansion System server online, the system displays the status of the device as green in the **Server Edition** window. For more information on device and link status, see the *IP Office Manager* document.

When you add a Server Edition Secondary or a Server Edition Expansion System, you must administer Avaya one-X® Portal for IP Office to connect to the new system. For more information, see the *Configuring IP Office Server Edition systems in Avaya one-X® Portal for IP Office* section of this document.

Next steps

Add the licenses for the Server Edition Expansion System server.

Related topics:

[Installing or upgrading IP Office Server Edition server](#) on page 13

[Adding a Secondary server](#) on page 33

[Adding a Server Edition Expansion System \(L\)](#) on page 39

[Adding a license](#) on page 52

[Configuring IP Office Server Edition systems in Avaya one-X Portal for IP Office](#) on page 69

Adding a Server Edition Expansion System (L)

Before you begin

1. Install the IP Office Server Edition on the server that you want to add as a Server Edition Expansion System server. If you have purchased a pre-installed IP Office Server Edition server, then you can skip this step and proceed to *Configuring IP Office Server Edition using the ignition process*.
2. Set the role of the server as *Expansion* server in the ignition process.
3. Launch IP Office Server Edition Manager.
4. Configure the server using the initial configuration utility of the IP Office Server Edition Manager.

About this task

To add a Server Edition System (L) to IP Office Server Edition Solution using the IP Office Server Edition Manager:

Procedure

1. Click **Expansion System** in the **Add** section of the **Server Edition** window.
2. Enter the IP address of the expansion system or browse for the expansion system in the **Add Expansion System** dialog box.
3. Click **OK**.

If you have not configured a Server Edition Expansion System server, then you can create an offline configuration. The system saves a copy of offline configuration in Server Edition Primary server. After you configure the Server Edition Expansion System server, you can select the offline configuration that you saved.

- Click **Yes** if you want to create an offline configuration for the system.
- Click **No** if you do not want to create an offline configuration for the system.
- Click **Discard** if you do not want to add a configuration for the system.

For more information on creating an offline configuration see the *IP Office Manager* document.

4. Configure the expansion system using the initial configuration utility.
For more details about setting the initial configuration in IP Office Server Edition Manager, see the *IP Office Manager* document.

Result

The system displays the details of the new Server Edition Expansion System in the **Server Edition** window.

* Note:

When you configure the Server Edition Expansion System server online, the system displays the status of the device as green in the **Server Edition** window. For more information on device and link status, see the *IP Office Manager* document.

When you add a Server Edition Secondary or a Server Edition Expansion System, you must administer Avaya one-X® Portal for IP Office to connect to the new system. For more information, see the *Configuring IP Office Server Edition systems in Avaya one-X® Portal for IP Office* section of this document.

Next steps

Add the licenses for the Server Edition Expansion System server.

Related topics:

[Installing or upgrading IP Office Server Edition server](#) on page 13

[Adding a Secondary server](#) on page 33

[Adding a Server Edition Expansion System \(V2\)](#) on page 37

[Adding a license](#) on page 52

[Configuring IP Office Server Edition systems in Avaya one-X Portal for IP Office](#) on page 69

Removing an expansion system

Before you begin

Ensure that there are no active calls in the expansion system.

About this task

To remove an expansion system that is a part of IP Office Server Edition Solution using IP Office Server Edition Manager:

Procedure

1. In the **Server Edition** window, right-click the expansion system that you want to remove.

2. Select **Remove**.
3. Click **Yes** to confirm.
The system reboots the expansion system that you removed from the IP Office Server Edition Solution.

Result

The system does not list the expansion system that you removed in the **Server Edition** window.

Next steps

Save the changes that you made to the configuration.

* Note:

If you do not save the configuration, when you reopen the configuration, the system lists the expansion system in the **Server Edition** window, and the status of the *Primary Link* as *Primary to System*.

Server Edition Expansion System (V2) versus Server Edition Expansion System (L)

The following table compares the key features in Server Edition Expansion System (V2) and Server Edition Expansion System (L).

Feature	Server Edition Expansion System (V2)	Server Edition Expansion System (L)	Server Edition Expansion System (L) Comments
Operating system	IP Office OS – Multos	Linux Centos	
Endpoint Support	Maximum 384 from: Analogue Digital SIP H.323 IP DECT Wi-Fi	Maximum 500 from: SIP H.323 IP DECT Wi-Fi	Analogue supported through SIP ATA
Trunk Support	Analogue (max 204) T1/E1 CAS (max 8) T1/E1 PRI (max 8) So/To BRI (max 16) SIP (max 125) H.323 (max 125)	Maximum 250/125 from: SIP H.323	Analogue supported through SIP ATA 250 is for DL360 125 is for DL120 IP trunk capacity is registered trunks, not channels

Feature	Server Edition Expansion System (V2)	Server Edition Expansion System (L)	Server Edition Expansion System (L) Comments
Media Server/ Processing	Provided by additional DSP (VCM) modules. Up to 148 physical DSP channels	Integrated media server: Up to 1400 logical media channels	Media channels used for - 2 party calls - conferencing - transcoding
Codecs	G.711 A/mu G.729a/b G.723 G.722 T.38	G.711A/mu G.729a G.722	
Conferencing	Base platform DSP: 128 Conference channels, 64 party maximum	Integrated media server: 128 Conference channels, 64 party maximum	
Administration	IP Office Manager Web Management System Manager (B5800)	IP Office Manager Web Management Web Control	Web Management used for on-boarding
Licensing ID	SD Card Can be moved	System ID Fixed to hardware	
IPSec/L2TP/PPP	Supported	Not supported	
CTI WAV	Supported	Not supported	CTI Pro is supported
LAN 1/LAN 2	See, <i>IP Office Server Edition LAN support</i> section	See, <i>IP Office Server Edition LAN support</i> section	
PKI trust domains	Not supported in Server Edition Supported only in Essential/Preferred/ B5800	Not supported	Certificate management or PKI not supported on Web Control
Music On Hold	Analogue extrn input Audio jack Wav file Beep	Wav file Wav directory Beep	Wav directory up to 255 files
Rated performance			
Call processing (BHCC)	7200	14400 (DL360) 7200 (DL120)	7,200 with one-X Portal users active
Maximum concurrent direct media calls	384	500	

Feature	Server Edition Expansion System (V2)	Server Edition Expansion System (L)	Server Edition Expansion System (L) Comments
Maximum concurrent RTP Relay calls	60	256 (DL360) 128 (DL120)	
Maximum concurrent TDM<> IP calls	120	n/a	
Maximum concurrent transcoding calls	74 (148/2)	256 (DL360)	Maximum concurrent transcoding calls

Configuration data

You can migrate a Server Edition Expansion System (V2) and run the ICU on existing systems without reapplying the configuration data, and you can also retain maximum possible configuration areas.

*** Note:**

Only experienced technicians should attempt to convert configuration settings using CSV import or export . Avaya recommends you to use ICU for all conversions.

The following table lists what the system retains and modifies, and what you should use when manually converting a configuration using CSV import or export:

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
System	Numerous change	Numerous change, same as default	Partial	Resets Server Edition mode	No	Should not allow whole system settings to be migrated.
				Removes many ICU changes that result in the following issues: • Licensing • Network • Directory	Some	The only way to preserve settings within the system record is to use the ICU on a live

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
				- Time - Server Edition mode		configuration. Sets only necessary values.
Line	All IP trunks removed. Server Edition SCN trunks added	All SCN trunks removed. Server Edition SCN trunks added	Partial	No SCN trunks allowed	Yes	Serious issues can arise.
				Line numbering duplication	Yes	Line renumber is not solution wide in IP Office Manager.
				No Analog/ Digital on Linux		Only if Server Edition Expansion System (V2) to Server Edition Expansion System (L) is considered.
Unit	No	No	No	None – unit entries are regenerated	No	Pointless migration.
Extension	IP extensions deleted Analog/ digital Extensions un-numbered	No	Yes	Duplicate extension numbers	Yes	Resolvable in Server Edition manager.
				Duplicate extension IDs	Yes	Resolvable in Server Edition manager.
				No Analog/ Digital on Linux		Only if Server Edition Expansion System

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
						(V2) to Server Edition Expansion System (L) is considered.
User	All users deleted	No changes	Yes	Duplicate user names	Yes	Resolvable in Server Edition manager.
				Duplicate user extns	Yes	Resolvable in Server Edition manager.
				CCR Agent settings	Yes	Resolvable in Server Edition manager.
Hunt Group	Delete all - Except on Primary	Delete all	No	Non SCN hunt groups not supported	Yes	
				Hunt groups only on Primary	Yes	
Short code	Feature codes deleted - Except on Primary	No changes	Yes	Existing global feature Short codes stop being global	Depends	The system removes any common feature short code that is not part of the migrated configuration. Resolvable in Server Edition manager. If Server Edition manager is

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
						in 'Consolidated' mode, the system prompts you to synchronize the common items in the Server Edition Primary server.
RAS	No changes	No changes	Yes			
ICR	Delete all	No changes	Yes	Existing global ICRs stop being global	Depends	The system removes any common ICR that is not part of the migrated configuration. Resolvable in Server Edition manager. If Server Edition manager is in 'Consolidated' mode, the system prompts you to synchronize the common items in the Server

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
						Edition Primary server.
License	Delete all	No changes	Yes	Some licenses are not supported	Yes, after it is saved and loaded from IP Office.	Resolvable in Server Edition manager.
Time Profile	Delete all	No changes	Yes	Existing global Time Profiles stop being global	Depends	Server Edition manager allows per device Time Profiles, the system removes any Time Profile that maps to a common device. Resolvable in Server Edition manager. If Server Edition manager is in 'Consolidated' mode, the system prompts you to synchronize the common items in Server Edition Primary server.

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
Firewall Profile	No changes	No changes	Yes			Only for Office Server Edition Expansion System (V2) does not support Server Edition Expansion System (L).
IP Route	Add gateway route	Add gateway route	Yes			
User Rights	Delete all - Except on Primary	No changes		Existing global user rights stop being global	Depends	Server Edition manager allows per device user rights, the system removes any Time Profile that maps to common user rights. Resolvable in Server Edition manager. If Server Edition manager is in 'Consolidated' mode, the system prompts you to synchronize the common

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
						items in Server Edition Primary server.
E911	No changes	No changes	No			E911 not formally supported
ARS	Add default entry for primary/ secondary	Add default entry for primary/ secondary	Yes	Existing Call routing	No	Resolvable in Server Edition manager.
Security Settings	Increase security level	Increase security level	Yes	ICU may not work if PKI trust domain active	No	PC running ICU would require to be in PKI trust domain. May have to be changed manually if security setting extensively modified.
Call log	No changes	No changes	Yes		No	Internal 'configuration' file on SD Card mapped to users. Not deleted on upgrade or change of mode from Standard to Server Edition.
DHCP allocation	No changes	No changes	Yes		No	Internal 'configuration' file on

Config Area	ICU Operation : 'Retain cfg' not checked	ICU Operation : 'Retain cfg' checked	Migration be allowed?	Potential migration issues	SE Manager Detect/ Correct?	Comments
						SD Card containing DHCP allocations. Not deleted on upgrade or change of mode from Standard to Server Edition.

Chapter 5: Configuring IP Office Server Edition Solution

IP Office Server Edition Solution

After you configure all the required components in an IP Office Server Edition Solution use the IP Office Server Edition Manager to manage and configure additional settings.

 Warning:

You should ensure the Multi-Site Network (SCN) links between Server Edition devices are either all LAN1, or all LAN2. Failure to adhere to this can reduce efficiency and limit some functionality. Additionally, full application and telephony functionality is available through LAN1 for all Linux servers. There is limited access through LAN2 for one-X Portal client voicemail playing and launch of IP Office Manager from Web Control. For more information, see *IP Office Server Edition LAN support* section of this guide.

 Warning:

You must run the CLI commands only if you are an Avaya support personnel. You must not install any third party applications on IP Office Server Edition components.

IP Office Server Edition Manager

IP Office Server Edition Manager is an application that you can use to manage all the components of IP Office Server Edition Solution. You can launch the IP Office Server Edition Manager using the Web Control.

This chapter covers only some of the key settings that you need, to configure for the IP Office Server Edition server using the IP Office Server Edition Manager. For example:

- Adding licenses
- Getting the System ID (SID)
- On boarding the IP Office Server Edition server
- Activating resilience

- Adding users, extensions, hunt groups
- Creating and applying templates

*** Note:**

For more information about the default Initial Configuration Utility, obtaining the licenses, configuring Incoming call routing, Outgoing call routing, setting time profiles, System directory, administering the system offline, setting up resilience, creating users, extensions, hunt groups using the auto create option, configuring the security settings, converting an existing IP500 V2 system to Server Edition Expansion System (V2), see the *IP Office Server Edition Mode* section of the *IP Office Manager* document.

Operating system support

Server support

The following server operating systems support IP Office Server Edition Manager:

- Windows Server 2003 (32 bit only)
- Windows Server 2008 Service Pack 2 (32 and 64 bit)

Client support

The following client operating systems support IP Office Server Edition Manager:

- Windows Vista Enterprise Service Pack 2 (32 and 64 bit)
- Windows XP Professional Service Pack 3 (32 bit only)
- Windows 7 (32 and 64 bit)

Adding a license

The license keys are unique strings based on the features that are activated and the unique identity of the system. The unique identity for IP500 V2 expansion system is the Feature Key serial number and the System ID for a Linux system.

Before you begin

You need one IP Office Server Edition license for Server Edition Primary, Server Edition Secondary, and one license for each of the Server Edition Expansion System (L) and Server Edition Expansion System (V2). You need to configure these licenses in the Server Edition Primary server.

For more information about licenses, see the *Licenses* section of the *IP Office Manager* document.

About this task

The system recognizes the features that are active only based on the license keys. To add the license using the IP Office Server Edition Manager:

Procedure

1. Select the system for which you want to add the license in the navigation pane.
2. Right-click **License**.
3. Select **New**.
You can also add a new license by clicking the **Create a New Record** icon and selecting **License** in the detailed pane.
4. Type the license key in the **License Key** field.
5. Click **OK**.
The system displays the name of the license in the **License Type** and the status as *Unknown* in the **License Status** fields.
6. Click the **Save Configuration** icon.
7. Close and reopen the configuration.
After you reopen the configuration the system displays the status as *Valid* in the **License Status** field in the detailed pane.

Result

The system displays the new license that you added under **License** in the navigation pane.

Related topics:

[Installing or upgrading IP Office Server Edition server](#) on page 13

[Adding a Secondary server](#) on page 33

[Adding a Server Edition Expansion System \(V2\)](#) on page 37

[Adding a Server Edition Expansion System \(L\)](#) on page 39

[Configuring IP Office Server Edition systems in Avaya one-X Portal for IP Office](#) on page 69

Getting the System ID

System ID

The System ID (SID) is a unique string of characters or the serial number that the IP Office Server Edition uses. The serial number is prefixed with **FK** in the physical System SD card for IP Office Server Edition.

For Server Edition Expansion System (V2) the SID is on the SD card. For Server Edition Primary, Server Edition Secondary, and Server Edition Expansion System (L) the SID is printed on the label of the server case.

Getting the SID using Web Control

About this task

Each of the Server Edition systems validates the license against a single system only. You can get the SID of the Server Edition Primary, Server Edition Secondary, and Server Edition Expansion System (L) of a IP Office Server Edition Solution using the Web Control.

To get the SID using the Web Control:

Procedure

1. Log in as *Administrator*.
 2. Click **Settings**.
 3. Select the **System** tab.
 4. The system displays **System ID (SID)** and **Licensing Mode** in the **System Identification** section.
-

Getting the SID using the IP Office Server Edition Manager

About this task

To get the SID:

Procedure

1. In the navigation pane, select the system for which you want the SID.
2. In the **System** tab, the system displays the SID in the **System Identification** field.

For more information on using the IP Office Server Edition Manager, see the *IP Office Manager* document.

Using Web Manager for on boarding

IP Office Web Management is a browser-based management application used for on boarding the IP Office Server Edition server.

About this task

To launch Web Management using Web Control:

 Note:

You can also launch the Web Management using the IP Office Server Edition Manager. For more information, see the *IP Office Manager* document.

Procedure

1. In the **Home** tab hover the cursor over the system for which you want to launch **Web Management**.
 2. Click **Web Management** link.
-

Result

The system launches **Web Management** in the browser.

On boarding

On boarding is a process through which you can register a system for remote support and maintenance from Avaya. Use the IP Office Web Manager interface to do the on boarding. This section is a short summary about on boarding.

For more details on how to configure and administer SSL VPN services, see the *Avaya IP Office SSL VPN Solutions Guide*.

Before you begin

Launch the *Web Management* application.

About this task

To start the on boarding process:

Procedure

1. Log in as Administrator.
The default password for *Administrator* is *Administrator*
2. On board the system.
 - a. Download the *inventory.xml* file from the system.
This file is required to register the system for support.
 - b. Register the system.
Register the system on the Avaya Global Registration Tool Web site and upload the inventory file. After the system is registered, you receive an on boarding file for the system. This file contains configuration settings for the SSL VPN service link.
 - c. Upload an on boarding file.
The system uses the information within the file to update the system configuration.

Result

After the on boarding process is complete the Avaya support team can remotely manage the system.

Activating resilience

IP Office Server Edition Solution offers resilience to IP Office.

Before you begin

You can activate resilience only if you have configured Server Edition Secondary in IP Office Server Edition Solution.

About this task

When you add a secondary server to IP Office Server Edition Solution, the resilience for primary and secondary servers are active by default. However, when you add an expansion system to the IP Office Server Edition Solution, resilience options for the expansion system are not active by default.

You can activate resilience for users or extension configured on an expansion system to either a Server Edition Primary or Server Edition Secondary only. You cannot split the resilience for

an expansion system between the Server Edition Primary and Server Edition Secondary. You cannot activate the resilience for an expansion system to another expansion system.

To activate resilience using the IP Office Server Edition Manager:

Procedure

1. Click **Resilience Administration** in the **Server Edition** window.
2. Select the resilience settings that you would like to activate in the **Resilience Administration** window.
3. Click **OK**.

 Note:

The voice network trunk from the primary server to the secondary server retains voicemail backup to secondary regardless of the IP Phone and hunt group resilience that you choose. The IP Office Server Edition Manager updates the relevant settings in device configurations.

 Note:

You can activate the resilience for an expansion system either on a primary server or a secondary server only. You cannot activate the resilience for an expansion system on both the primary server and secondary server.

For more information about resilience, see the *Setting Up Resilience* section of the *IP Office Manager* document.

Adding a user

By default, no users are present on IP Office Server Edition systems. You can add a user to a Server Edition Primary, Server Edition Secondary, or Server Edition Expansion System that hosts the physical extension so that the users can log in to the extension to make or receive calls.

You can configure a maximum of 500 users on each of Server Edition Primary, Server Edition Secondary, and Server Edition Expansion System (L). You can configure a maximum of 384 users on a Server Edition Expansion System (V2).

Over an entire IP Office Server Edition Solution you can configure a maximum of 1000 users.

You can also add users using the auto create feature in IP Office Server Edition Manager. For more information, see the *Configuration Settings* section of the *IP Office Manager* document.

About this task

To add a user using the IP Office Server Edition Manager:

Procedure

1. In the navigation pane, select the system that hosts the extension to which you want to add a user.
2. Right-click **User**, and select **New**.
3. Enter the configuration settings for the user.

 Note:

Ensure that the user name and the extension number is unique. No two users can have the same user name and extension numbers.

If the extension number does that you specify for a user does not match the existing base extension number of an extension on the same system, The system prompts you to create a new record for an H323 or SIP extension.

For more information on the configuration settings for the user, see the *Configuration Settings* section of the *IP Office Manager* document.

4. Click **OK**.

Result

The system displays the new user under **User** in the navigation pane.

Adding an extension

An extension is associated with a base extension (directory) number and any settings of a user with the same directory number. Users with a login code can change extensions by logging in and out, so the directory number is not fixed to an extension. When you set a *base extension* number for an extension to associate a default user of that extension when no users log in to that extension.

You can configure a maximum of 500 extensions on each of Server Edition Primary, Server Edition Secondary, and Server Edition Expansion System (L). You can configure a maximum of 384 extensions on a Server Edition Expansion System (V2).

Over an entire IP Office Server Edition Solution you can configure a maximum of 1000 extensions.

You can also add extensions using the auto create feature in IP Office Server Edition Manager. For more information, see the *Configuration Settings* section of the *IP Office Manager* document.

About this task

To add an extension using the IP Office Server Edition Manager:

Procedure

1. In the navigation pane, select the system for which you want to add an extension.
2. Right-click **Extension**, and select **New**.
3. Enter the configuration settings for an extension.
For more information see the *Configuration Settings* section of the *IP Office Manager* document.
4. Click **OK**.

Result

The system displays the new extension under **Extension** in the navigation pane.

Adding a hunt group

A hunt group is a collection of users who are accessible through a single directory number. Any available member of the group can answer the calls to that hunt group. You can set the order in which calls are presented to the users.

You can add a maximum of 200 hunt groups in an IP Office Server Edition Solution. You can add a maximum of 2000 users across 200 hunt groups and in each hunt group you can add a maximum of only 500 users.

About this task

To add a hunt group using the IP Office Server Edition Manager:

Procedure

1. In the navigation pane, select the system for which you want to add a hunt group.
2. Right-click **Hunt Group**, and select **New**.
3. Enter the configuration settings for the hunt group.
For more information on the configuration settings for hunt group, see the *IP Office Manager* document.
4. Click **OK**.

Result

The system displays the new hunt group under **Hunt Group** in the navigation pane.

Creating a template

You can create a template for users, extensions, hunt groups, services, tunnels, firewall profiles, time profiles, IP routes, ARS forms, and lines. The system stores these templates by default in the Server Edition Primary server. You can use these templates to add new users, extensions, hunt groups, services, tunnels, firewall profiles, time profiles, IP routes, ARS forms, and lines.

About this task

To create a template using the IP Office Server Edition Manager:

Procedure

1. In the navigation pane, select the profile that you would like to create.
2. Right-click the profile and select **New**.
3. In the detailed pane, enter the details for the profile you selected.
For more information on users, extensions, hunt groups, services, tunnels, firewall profiles, time profiles, IP routes, ARS forms, lines and their settings, see the *IP Office Manager* document.
4. Click **OK**.
5. Click **Export as Template (Binary)** in the detailed pane.
6. Save the template for the profile that you created in the default folder named *template*.
Typically the default location is C:\Program Files\Avaya\IP Office\Manager\Manager_files\template

Applying a template

Before you begin

The templates for profiles such as users, extensions, hunt groups, services, tunnels, firewall profiles, time profiles, IP routes, ARS forms, and lines must be created.

About this task

For more information about the templates and how to apply templates, see the *IP Office Server Edition mode* section in the *IP Office Manager* document.

To apply the templates that you created for the profiles using the IP Office Server Edition Manager:

Procedure

1. In the navigation pane, select the profile you want to create.
2. Right-click the profile and select **New from Template (Binary)**.
3. Select the template that you would like to apply for the profile.
To select a template from a folder where you have saved the template click **Open from file**.

Result

The system displays the new profile in the navigation pane.

Configuring VLAN using Web Control

About this task

To create a Virtual LAN (VLAN) using Web Control:

Procedure

1. Select **Settings > System**
2. In the **Network** section, select the network interface where you want to create a VLAN from the **Network Interface** drop-down list.
3. Click **Create Subinterface**.
The system displays Create New Subinterface dialog box.
4. Type the Id for the VLAN in **VLAN Id** field.
The Id of the VLAN that you create must be an integer between 1 and 4094.
5. Set the IP address and the subnet mask for the VLAN.
 - Select **Use DHCP** to assign the IP address and subnet mask for the LAN automatically using DHCP.
 - Clear **Use DHCP** if you do not want to assign the IP address and subnet mask for the LAN using DHCP.
 - i. Type the IP address of the VLAN in **IP Address** field.
 - ii. Type the subnet mask in the **Subnet Mask** field.
6. Click **Create**.

IP Office Server Edition LAN support

There are some differences between the functionality of the LAN interfaces of the Server Edition Expansion System (L) and IP500 V2 based Server Edition Expansion System (V2) platforms. Some of the differences are:

- No IPsec, PPP, NAT or NAPT support on Server Edition Expansion System (L).
- No firewall or IP routing support on Linux – all traffic is routed between LAN1 and LAN2 . In addition, the LAN2 interface of the Server Edition Expansion System (L) has fewer capabilities than LAN1.
- Avaya one-X® Portal client cannot listen to voicemail messages.
- You cannot launch the IP Office Server Edition Manager from Web Control.
- The system cannot access the external MAPI and SMTP voicemail server through LAN2. Use the LAN1 of Server Edition Expansion System (L) for all ethernet traffic and disconnect LAN2.

The following table details the LAN supported features for Server Edition Expansion System (V2) and Server Edition Expansion System (L) platforms in IP Office Release 8.1:

Feature	IP500 V2 LAN1	IP500 V2 LAN2	Linux LAN1	Linux LAN2	Notes
Interface L1-L4					
Interface Support	✓	✓	✓	✓	
Physical<> logical interface mapping	Fixed: 'LAN'	Fixed: 'WAN'	✓	✓	
Speed	10/100	10/100	10/100/1000	10/100/1000	
Duplex	Full/half	Full/half	Full/half	Full/half	
802.1Q VLAN support	✗	✗	✓	✓	Static VLAN assignment through administration IP500 V2 strips any received VLAN tag
DSCP/ToS	✓	✓	✓	✓	Linux LAN2 uses LAN1 DSCP settings – any

Feature	IP500 V2 LAN1	IP500 V2 LAN2	Linux LAN1	Linux LAN2	Notes
					LAN2 settings are ignored
Default gateway/ route	✓	✓	✓	✓	Linux through ignition or Web Control
Proxy ARP	✓	✓	✗	✗	IP500 V2 acts as an L3 router
IP Multicast	✓	✓	✗	✗	
Inter LAN					
Firewall	✓	✓	✗	✗	No configurable firewall between Linux LAN interfaces
IP Routes	✓	✓	✗	✗	No configurable IP routing between Linux LAN interfaces
NAT/NAPT	✓	✓	✗	✗	
PPP	✓	✓	✗	✗	
Clients					
1XP client – basic	n/a	n/a	✓	✓	
1XP client – VM listen	n/a	n/a	✓	✗	
One-X Communicator Preferred	n/a	n/a	✓	✓	
One-X Communicator Preferred – VM listen	n/a	n/a	✓	✗	
Flare Communicator	✓	✓	✓	✓	
SoftConsole	✓	✓	✓	✓	
VMPro – MAPI Link	n/a	n/a	✓	✗	Two way MS Exchange VM Integration

Feature	IP500 V2 LAN1	IP500 V2 LAN2	Linux LAN1	Linux LAN2	Notes
VMPro – SMTP	n/a	n/a	✓	✗	One way IMAP/Exchange VM integration
Administration					
IP Office Manager	✓	✓	✓	✓	
SSA	✓	✓	✓	✓	
SysMon	✓	✓	✓	✓	
Web Control	n/a	n/a	✓	✓	
VMPro Client	n/a	n/a	✓	✓	
Admin launch from Web Control	n/a	n/a	✓	✗	Launch of IP Office Manager, SSA, Voicemail Pro client from Web Control
Protocols					
DHCP	✓	✓	✓	✓	Client and server
BOOTP	✓	✓	✗	✗	
TFTP	✓	✓	✓	✓	
HTTP/S	✓	✓	✓	✓	Client and server, including embedded file management, web services, phone files
SCP	✗	✗	✓	✓	Backup/restore
PPP	✓	✓	✗	✗	PPP not supported by Linux
IPsec	✓	✓	✗	✗	IPsec not supported by Linux
VLAN (L2TP/PPTP)	✓	✓	✗	✗	VLAN not supported by Linux
RIPv2	✓	✓	✗	✗	RIP/OSPF not supported by Linux
SSLVPN	✓	✓	✓	✓	

Feature	IP500 V2 LAN1	IP500 V2 LAN2	Linux LAN1	Linux LAN2	Notes
NTP	✓	✓	✓	✓	Client and server operation
TIME	✓	✓	✗	✗	RFC 868
TSPI	✓	✓	✓		CTI interface for TAPI and one-X Portal
SNMP	✓	✓	✓	✓	Traps and MIBs, v1 only
SMDR	✓	✓	✓	✓	Emission and collection
DNS	✓	✓	✓		
FTP	n/a	n/a	✓	✗	Linux remote upgrade protocol
					VMPro backup protocol
Telephony					
H.323 trunks (including SCN)	✓	✓	✓	✓	LAN1 and LAN2 should not be mixed for SCN. Should be all LAN1 or all LAN2
H.323 phones	✓	✓	✓	✓	Phones must be configured with 'local' registrar IP address – for example, not possible to access LAN2 registrar through LAN1
H.323 Remote worker phone	✓	✓	✓	✓	
IP DECT	✓	✓	✓	✓	
SIP trunks	✓	✓	✓	✓	
SIP phones	✓	✓	✓	✓	
STUN	✓	✓	✓	✓	
IP Office softphone	✓	✓	✓	✓	
One-X Communic	✓	✓	✓	✓	

Feature	IP500 V2 LAN1	IP500 V2 LAN2	Linux LAN1	Linux LAN2	Notes
ator Essential					

Chapter 6: Launching the applications

Launching Voicemail Pro client

Before you begin

Launch IP Office Server Edition Manager on the Server Edition Primary server using the Web Control.

About this task

To launch Voicemail Pro client using IP Office Server Edition Manager:

Procedure

1. In the **Server Edition** window select the server for which you want to launch the Voicemail pro client.

Note:

You can launch Voicemail Pro client only for an active Voicemail Pro server. You cannot launch Voicemail Pro client for a backup Voicemail Pro server.

2. Click **Voicemail Pro Client** in the **Open** section of the **Server Edition** window.

Result

The system launches **Voicemail Pro Client** for the server that you selected.

Launching SSA

You can use System Status Application (SSA) to monitor the status of a system.

Before you begin

The component of the IP Office Server Edition Solution for which you want to launch SSA must be online.

About this task

To launch SSA using Web Control:

 Note:

You can also launch SSA using IP Office Server Edition Manager. For information about launching SSA using IP Office Server Edition Manager, see the *IP Office Server Edition mode* section of the *IP Office Manager* document.

Procedure

1. In the **Home** tab hover the cursor over the system for which you want to launch SSA.
2. Click **Launch SSA** link.

Result

The system launches SSA.

Chapter 7: Configuring one-X Portal

Configuring Avaya one-X[®] Portal for IP Office users

To ensure that the users configured in the Server Edition Manager are able to use the Avaya one-X[®] Portal for IP Office you need to configure Avaya one-X[®] Portal for IP Office.

Before you begin

About this task

By default Avaya one-X[®] Portal for IP Office is installed on the Server Edition Primary server. However, to support more than 200 users then you need to configure Avaya one-X[®] Portal for IP Office as a standalone server.

Install and configure a server as Avaya one-X[®] Portal for IP Office in the ignition process.

Configure users in the IP Office Server Edition server or restore the user data from the existing Avaya one-X[®] Portal for IP Office.

To configure Avaya one-X[®] Portal for IP Office users:

Procedure

1. Launch the IP Office Server Edition Manager.
2. Add the *Office Worker* or *Power User* licenses.
3. Enable Avaya one-X[®] Portal for IP Office services for the users configured in the IP Office Server Edition.

For more details on enabling Avaya one-X[®] Portal for IP Office services for the users, see the *IP Office Manager* document.

Configuring IP Office Server Edition systems in Avaya one-X[®] Portal for IP Office

To ensure that all users can use the services of Avaya one-X[®] Portal for IP Office you need to configure all the Server Edition Expansion Systems and Server Edition Secondary of the IP Office Server Edition Solution in Avaya one-X[®] Portal for IP Office server.

Before you begin

Install and configure the server as an Server Edition Expansion System in the ignition process.

About this task

To configure the Server Edition Expansion System in Avaya one-X® Portal for IP Office server.

Procedure

1. Login as *Administrator*.
2. In the left panel select **Configuration > Providers**
3. Configure the details of the Server Edition Expansion System as Telephony (CSTA) provider and (DSML IP-Office) provider.

For more information about how to configure the details of the Server Edition Expansion System as Telephony (CSTA) provider and (DSML IP-Office) provider, see the *Administration* section of the *Implementing Avaya one-X® Portal for IP Office* document.

Related topics:

[Installing or upgrading IP Office Server Edition server](#) on page 13

[Adding a Secondary server](#) on page 33

[Adding a Server Edition Expansion System \(V2\)](#) on page 37

[Adding a Server Edition Expansion System \(L\)](#) on page 39

[Adding a license](#) on page 52

Configuring administration access for Avaya one-X® Portal for IP Office

Before you begin

Install and configure a server as Avaya one-X® Portal for IP Office in the ignition process.

About this task

To configure the administration access for Avaya one-X® Portal for IP Office using the Web Control Panel.

Procedure

1. On a client computer, start the browser and type *https://<IP address of Server Edition>:9443/onexportal-admin.html*.

2. Login as *Administrator*. The default user name is *Administrator* and the password is *Administrator*.
To ensure that your system is secure always change the default password.
3. Set the initial configuration of Avaya one-X® Portal for IP Office.
For details about setting the initial configuration, see the *Implementing Avaya one-X® Portal for IP Office* document.
After you set the initial configuration the system prompts you to change the *Administrator* password.
4. Type the new password in the **New Password** field of the Administrator Default Password Check dialog box
5. Retype the password in the **New Password (Typed Again)** field.
6. Click **Change Password**.

Next steps

Initialize the AFA login.

Initializing AFA login for Avaya one-X® Portal for IP Office

You need an AFA login to perform backup and restore operations for Avaya one-X® Portal for IP Office.

About this task

To configure an AFA login using the Web Control:

Procedure

1. On a client computer, start the browser and type *https://<IP address of Server Edition>:8080/onexportal-afa.html*.
2. Login as *Superuser*. The default user name is *Superuser* and password is *MyFirstLogin1_0*.
3. Type the name you want the system to display in Avaya one-X® Portal for IP Office in the **Display Name** field.
4. Type the new password in the **Password** and **Confirm Password** fields.
5. Set the location on the server where you want the system to store the backup files in the **Backup Folder**.

*** Note:**

Even if you are taking a backup and restore from an FTP or local folder on a computer, the system uses the location on the server that you set for storing the files temporarily.

Backing up and restoring one-X Portal

Backing up Avaya one-X[®] Portal for IP Office

About this task

You can backup the Avaya one-X[®] Portal for IP Office database, Presence and Mobility settings on a local server, an FTP server, or a local drive. You can take a backup manually through the Avaya one-X[®] Portal for IP Office Administration Web page. You can take unlimited sets of the backup files. The system sets a limit on space used to backup file on a local drive. To backup Avaya one-X[®] Portal for IP Office:

Procedure

1. Click **one-X Portal Administration** in the **Home** page of the Web Control.
 2. Log in as *Superuser*.
For more information on logging in as *Superuser*, see the *Administering one-X Portal for IP Office* document.
 3. Click **DB Operations**.
 4. Click **Backup**.
For more information about backup settings, see *Administering one-X Portal for IP Office* document.
-

Restoring Avaya one-X[®] Portal for IP Office

Before you begin

Ensure that you shutdown all the services on the server.

About this task

You can restore Avaya one-X® Portal for IP Office database, Presence and Mobility settings from a local server, an FTP server, or a local drive. To restore Avaya one-X® Portal for IP Office:

Procedure

1. Click **one-X Portal Administration** in the **Home** page of the Web Control.
 2. Log in as *Superuser*.
For more information on logging in as *Superuser*, see the *Administering one-X Portal for IP Office* document.
 3. Click **DB Operations**.
 4. Click **Restore**.
For more information on restore settings, see the *Administering one-X Portal for IP Office* document.
-

Administering a separate Avaya one-X® Portal for IP Office

Server Edition Primary supports a maximum of 200 active Avaya one-X® Portal for IP Office users. You can disable the Avaya one-X® Portal service on the Server Edition Primary server and dedicate a separate Avaya one-X® Portal for IP Office to support more than 200 users.

Before you begin

Take a backup of the existing user data.

Install and configure the server as Avaya one-X® Portal for IP Office in the ignition process.

About this task

To administer a separate Avaya one-X® Portal for IP Office on the Server Edition Primary server using Web Control:

Procedure

1. In the **Settings** tab select **General**.
2. In the **one-X Portal Settings** section clear **Use Local IP**.
3. Select **System > Services**.
4. Click **Stop** to stop the services of Avaya one-X® Portal for IP Office on the Server Edition Primary server.
5. Clear **Auto Start** for Avaya one-X® Portal for IP Office on the Server Edition Primary server.

The system disables the Avaya one-X® Portal for IP Office on the Server Edition Primary server.

6. Go to **Settings > General**.
7. In the **one-X Portal Settings** section, type the IP address of the separate Avaya one-X® Portal in the **Remote IP** field.
8. Click **Save**.
9. In the **Home** tab click **one-X Portal Administration**.

Result

The system launches the Avaya one-X® Portal for IP Office administration login page in the browser.

Next steps

Restore the user data in the separate Avaya one-X® Portal for IP Office.

Chapter 8: Configuring Voicemail Pro

Configuring Voicemail Pro

The Voicemail Pro application provides the basic mailbox services for all users and hunt groups created in the IP Office configuration. In a setup where there is a single IP Office and Voicemail Pro server you need not do any configuration. This section describes only the minimum steps that Avaya recommends to ensure that the Voicemail Pro server operates correctly and is secure.

For more details about IP Office and Voicemail Pro configuration, such as enabling TTS, or enabling exchange integration, see the *Implementing Voicemail Pro on Linux* and *Administering Voicemail Pro* manuals.

About this task

Add the Voicemail Pro licenses in the IP Office Server Edition Manager.

Note:

A single instance of Server Edition provides only two Voicemail Pro channels. The number of Voicemail Pro channels that the system displays depends on the number of instances of Server Edition. If you have licenses for any additional channels, you must add those licenses as well.

Installing Voicemail Pro client

Before you begin

Login as an *Administrator* using the Web Control.

About this task

Note:

If you have not installed the latest version of Voicemail Pro client, the system prompts you to install the latest version when you click **Manage** in the **Home** Page of the Web Control.

To download the latest version of Voicemail Pro client using the Web Control:

Procedure

1. Click **AppCenter** tab.
2. In the **Download Applications** section, click the .exe file link for Voicemail Pro client.
3. Download the .exe file and run the .exe file to install Voicemail Pro client.

Next steps

Login to the Voicemail Pro server using Voicemail Pro client.

Logging into Voicemail Pro server

Before you begin

To log into a Voicemail Pro server you should configure an *Administrator* user name and password on the Voicemail Pro server. The default user name for Voicemail Pro server is *Administrator* and the password is *Administrator*.

Note:

To ensure that the system is secure you must always change the default password.

About this task

To log into Voicemail Pro server using Voicemail Pro client, do the following:

Procedure

1. Click **Start**.
2. Select **Program >IP Office > Voicemail Pro Client**.
The system displays Select Voicemail Pro Client Mode window. If you started the client before, the system attempts to start in the same mode that you used earlier. If you start the client for the first time, the system displays the Select Voicemail Pro Client Mode dialog box.
3. Select **Online**.
The system displays VmPro Login dialog box.
4. Type *Administrator* in the **User Name** field.
5. Type the pass word in the **User Password** field.
The default password is *Administrator*.
6. Type the IP address of the voicemail server in the **Unit Name \ IP Address** field.
You can also click **Browse** to search for theVoicemail Pro server in the local network.

7. Click **Login**.

 Note:

After three unsuccessful attempts to login as an *Administrator* the system locks the *Administrator* account for an hour.

Next steps

Change the default password for the Voicemail Pro *Administrator* account.

1. In the Voicemail Pro client, select **File > Change Password**.
2. Type the new password in the **New Password** and **Verify New Password** fields.
3. Click **OK**.

Backing up and restoring voicemail

Backing up Voicemail Pro

You can take a backup of voicemail, user settings & greetings, call flows, modules and conditions, module recordings, campaigns, and system settings on a local drive. You can take backup once everyday, every week or every month.

About this task

To take a backup of the voicemail server do the following:

Procedure

1. Launch Voicemail Pro client.
2. Log in as *Administrator*.
3. Select **Administration > Preferences > General**.
4. Click the **Housekeeping** tab.
5. Click **Backup Now**.

The system displays the various backup options. For more information on the backup settings, see the *Administering Voicemail Pro* document.

6. Click **OK** to start backup.
-

Restoring Voicemail Pro stored on IP Office Server Edition server

You can restore the voicemails, user settings & greetings, call flows, modules and conditions, module recordings, campaigns, and system settings that were backed up on a local drive.

Before you begin

Ensure that you shutdown all the services on the server.

About this task

To restore a backup file that is stored on the IP Office Server Edition server:

Procedure

1. Login as an Administrator into the IP Office Server Edition using the Web Control Panel.
2. Select **Settings > General**.
3. Select **Restore** in the **Backup and Restore**.

* Note:

You can only restore the backup files for the voicemail using the Web Control Panel. You can restore a complete backup data set. You cannot select a particular item that needs to be restored.

Result

The system displays a list of backup files, select the backup file you want to restore.

Migrating Voicemail Pro to IP Office Server Edition

Related topics:

[Backing up an existing Voicemail Pro server](#) on page 78

[Restoring Voicemail Pro not stored on IP Office Server Edition server](#) on page 79

[Backup and restore limitations](#) on page 80

Backing up an existing Voicemail Pro server

When you replace an existing Voicemail Pro server with IP Office Server Edition server you must take a backup of all the settings, prompts and messages from the existing server. If the existing server is a Linux based server, you must use SSH file transfer to retrieve the backup files from the server. If the existing server is a Windows based server you copy the backup

files on a folder in the server and then use the SSH file transfer to migrate the back up files to IP Office Server Edition server

About this task

To take backup of an existing Voicemail Pro server:

Procedure

1. Log in to the Voicemail Pro server using Voicemail Pro client.
You can use the **File> Voicemail Shutdown > Suspend Calls** to display the number of voicemail sessions that are active. You can stop any new sessions or end the sessions before to take a backup.
2. Select **Preferences >General**.
3. Click the **Housekeeping** tab.
4. Select **Backup Now**.
5. Select all the backup options for a complete backup and click **OK**.
The time take to complete a backup varies depending on the number of mailboxes and messages that the Voicemail Pro server supports.
The system creates a backup of folder. The name of the folder includes the date and time of the backup and Immediate. For example,
VMPPro_Backup_26012011124108_Immediate.

Next steps

Shutdown the voicemail server:

1. Select **File>Voicemail Shutdown > Shutdown**.
2. Select **Shut Down Immediately**.

Restoring Voicemail Pro not stored on IP Office Server Edition server

Before you begin

Ensure that you shutdown all the services on the server.

About this task

To restore a backup file that is not stored on the IP Office Server Edition server:

Procedure

1. Connect to the IP Office Server Edition using an SSH File transfer tool.
 - a. Type the IP address of the IP Office Server Edition server in the **Host Name** field.

- b. Type the **User Name** as Administrator.
- c. Set the **Protocol** as **SFTP/SSH**.
- d. Set the **Port** as **22**.

When you connect to the IP Office Server Edition using an SSH File transfer tool for the first time the system prompts you to accept the trusted key. Accept the trusted key.

- e. Type the password for the *Administrator*. The default password for the *Administrator* is Administrator.
2. Copy the backup folder in the `/opt/vmpro/Backup/Scheduled/OtherBackups`.
 3. Login as an Administrator into the IP Office Server Edition using the Web Control Panel.
 4. Select **Settings > General**.
 5. Select **Restore** in the **Backup and Restore**.

 Note:

You can only restore the backup files for the voicemail using the Web Control Panel. You can restore a complete backup data set. You cannot select a particular item that needs to be restored.

Result

The system displays a list of backup files, select the backup file you want to restore.

Backup and restore limitations

If you have created extra folders on the Voicemail Pro server, in IP Office Server Edition server these folders are not included in the restore process. Instead the extra folders need to be copied manually. For example, if you created a folder containing custom prompts for use in call flows in addition to the default language folders used for prompts, then the system does not backup or restore the custom folder. To resolve this, the extra folders must be backed up and restored manually. In the following example, a folder *Custom* is manually copied from an existing server to create a backup. It is then manually restored.

Before you begin

Using SSH file transfer tool copy the folder *Custom* from `/opt/vmpro` in the old server to your computer to create a backup of the folder.

About this task

To restore the *Custom* folder, using an SSH file transfer tool, copy the folder to the `/home/Administrator` folder on the IP Office Server Edition server:

Procedure

1. Login to the command line interface of the system using the root user password. You can log in directly on the IP Office Server Edition server or remotely using an SSH File transfer tool.
 - Log in directly to the IP Office Server Edition server:
 - i. At the Command: prompt, type `login`
 - ii. At the `login:` prompt, type `Administrator`
 - iii. At the Password: prompt, type the default password `Administrator`
 - Log in as Administrator using the SSH file transfer tool.
 - . The default password is `Administrator`
2. In a new terminal window at the command prompt, type `admin`
The system prompts for a password. The default password is `Administrator`
3. At the `Admin >` prompt, type `root`
4. Type the root password. The default password is `Administrator`
The system displays the root user prompt. For example, `root@<name of the`

```
*****
*           IP Office for Linux           *
*                                         *
*      WARNING: Authorised Access Only      *
*****

Welcome Administrator it is Wed Jun 13 05:05:03 BST 2012
> admin
Please enter password:
Admin> root
Password:
[root@localhost ~]#
```

server>

5. Type `cd /home/Administrator`
6. Type `mv Custom /opt/vmpro`

Next steps

Using the SSH file transfer tool, verify that the *Custom* folder has been copied to `/opt/vmpro`

Chapter 9: Configuring passwords

Changing the Administrator password

About this task

You can administer all the systems configured in IP Office Server Edition Solution using the browser based Web Control. The components that you can administer are the Server Edition Primary, Server Edition Secondary, and Server Edition Expansion System (L).

To change the Web Control *Administrator* password:

Procedure

1. On a client computer, start the browser and type `https:// <IP address of the Server> :<port number>`.
The default port number is 7070. You can change the port number after logging in as *Administrator*. To change the port number select **Settings >General**.
2. In the IP Office Server Edition logon page, click **Change password**.
3. Type the current password of the *Administrator* in the **Old Password** field.
4. Type the new password of the *Administrator* in the **New Password** field.

Note:

Ensure that the password that you set conforms to the requirements listed under **Password complexity requirements**.

5. Retype the new password of the *Administrator* in the **Confirm Password** field.
6. Click **Ok**.

Next steps

After you change the common configuration Administrator password for the servers using the IP Office Server Edition Manager you must also update the same password for *Administrator* account of the Server Edition Primary and Server Edition Secondary servers using the Web Control.

Changing root user password

About this task

You can change the password of the *root user* for a Linux server using the Web Control panel.

Procedure

1. On a client computer, start the browser and type `https:// <IP address of the Server> :<port number>`.
2. Log in as *Administrator*.
3. Select **Settings >System**
4. Type the new password in the **New Password** field of the **Change Root Password** section.

 Note:

Ensure that the password that you set conforms to the requirements listed under **Password complexity requirements**.

5. Retype the password in the **Confirm New Password** field.
6. Click **Save**.

Related topics:

[Setting password complexity rules](#) on page 84

Setting password complexity rules

You can configure Web Control and root user password complexity rules that the system applies for new passwords. The system applies these rules when you change the Web Control password and the root user password. The system displays the password rules when you change the password.

You can configure the password complexity rules for IP Office *Administrator* account using IP Office Server Edition Manager. For more information, see the *Security Mode* section of the *IP Office Manager* document.

About this task

To set the password complexity rules:

Field name	Description
Minimum password length	You can set the minimum length of new passwords. The sum of characters set in the other fields might impact the value that you set in this field. The value that you can set for this field is 31 characters.
Minimum number of uppercase characters	You can set the number of uppercase alphabetic characters that the new passwords must contain.
Minimum number of lowercase characters	You can set the number of lowercase alphabetic characters that the new passwords must contain.
Minimum number of numeric characters	You can set the number of numeric characters that the new passwords must contain.
Minimum number of special characters	You can set the number of non-alphanumeric characters that the new passwords must contain.
Allow character sequences	You can enable this option to set the character sequences such as 1234 or 1111 or abcd, in new passwords without any restriction.
Maximum allowed sequence length	You can set the maximum length of any character sequence.  Note: You can set the maximum length of any character sequence only if you have not enabled Allow character sequences.

Procedure

1. On a client computer, start the browser and type `https:// <IP address of the Server> :<port number>`.
 2. Log in as *Administrator*.
 3. Select **Settings > System**.
The system displays the current password rules in the **Password Rules Settings** section.
 4. Set the values in each of the fields as required.
 5. Click **Save**.
-

Changing the Security Administrator password for Server Edition server

About this task

You can administer all the components of IP Office Server Edition Solution using the IP Office Server Edition Manager.

Note:

You must change the password of each IP Office Server Edition servers separately.

To change the password:

Procedure

1. Select **File >Advanced > Security Settings**.
2. In the Select IP Office window select the server for which you want to change the *Security Administrator* password.
3. Click **OK**.
4. Type the name of the *Security Administrator* in **Service User Name** field.
5. Type the password of the *Security Administrator* in **Service User Password** field.
The default user name is *security* and password is *securitypwd*.
6. Select **General** in the navigation pane.
7. In the **Security Administrator** section, click **Change**.
8. Type the current password of the *Security Administrator* in the **Old Password** field.
9. Type the new password of the *Security Administrator* in the **New Password** field.
10. Retype the new password in the **Re-Enter Password** field.
11. Click **OK**.

For more information on using the IP Office Server Edition Manager, see the *IP Office Manager* document.

Changing the passwords of common configuration Administrator

Before you begin

You must have the user name and password for each of the systems in IP Office Server Edition Solution to access the security configuration.

About this task

You can create a common user name and password for the multiple systems in IP Office Server Edition Solution to obtain access to the system configurations using IP Office Server Edition Manager:

Procedure

1. Select **Tools > Server Edition Service User Management**.
2. In the **Select IP Office** window, select the systems for which you want to create a common configuration account.
3. Click **OK**.
4. Type the user name and password to access the security configuration of each of the system that you have selected.

To use the same user name and password for the selected systems, select **Use above credentials for all remaining, selected IPOs**. The user name is *security* and password is *securitypwd*. You must change the default password later to ensure that the system is secure.

To use different user name and password for each of the selected systems, clear **Use above credentials for all remaining, selected IPOs**.
5. The system displays the list of all the systems in IP Office Server Edition Solution and an indication if they already have an **Service User Status** account.
6. To change the password, click **Change Password**.
7. Click **Update Password**.
8. Type the common password in the **New User Password** field.
9. Retype the password in the **Re-enter New User Password** field.
10. Click **OK**.
11. Click **Close**.

Next steps

After you change the common configuration Administrator password for the servers using the IP Office Server Edition Manager you must also update the same password for *Administrator*

account of the Server Edition Primary and Server Edition Secondary servers using the Web Control.

Chapter 10: Configuring alarms and log files

Configuring alarms

About this task

The system reports events occurring on the various IP Office applications and the control units. The system uses various methods of reporting events in addition to the real-time and historical reports available through the System Status Application (SSA). You can create multiple event destinations each specifying which events and alarms to include, the method of reporting to use such as SNMP, Syslog or Email, and where to send the events. You can configure up to five alarm destinations for SNMP, two alarm destinations for Syslog, and three alarm destinations for SMTP email.

All the components of IP Office Server Edition Solution forward the alarms using Syslog to the Server Edition Primary server and are a part of the server logs. You can view and download these logs using the Web Control. You can configure the system to send alarms to another location using IP Office Server Edition Manager.

To configure alarms using the IP Office Server Edition Manager:

Procedure

1. Select **System** in the navigation pane.
2. Select the **System Events** tab.
3. Type the configuration details in the **Configuration** tab.
4. Add the destination for the events in the **Alarms** tab.

For more information on the fields and the configuration settings, see the *System Events* section of the *IP Office Manager* document.

5. Click **OK**.
-

Configuring the age of the log files

About this task

The system notifies you the status of the application service or the server in the event of any failure or outage. The system displays the notifications along with time stamps and records them in a log file. To configure the number of days that these log files need to be retained in the system using Web Control:

Procedure

1. Select **Setting > General**.
2. In the **Watchdog** section, type the number of days in the **Log files age (days)** field.

 Note:

The system does not apply the number of days that you set in the **Log files age (days)** field to the log files that are already archived.

Viewing the log files

About this task

You can view the log files of the various applications that the IP Office Server Edition supports. The system displays only those log files that are logged after you archived the logs. You can also view the actions of other users who are logged in using the Web Control. To view the log files using Web Control:

Procedure

Select **Logs > View**.

- To view the logs of an application, select the application listed in the **Application** drop down list under the **Application Log** table.

The system displays the details of the actions performed by other users in the **Audit Log** table.

Downloading the log files

The system archives the log files of the applications in *.tar.gz* format in the **Debug Files** section.

About this task

To download the log files using Web Control:

Procedure

1. Select **Logs > Download**.
The system displays the files that you need for debugging in the **Debug Files** section and log files in the **Logs** section.
2. Click the file to download.

 Note:

The process for the download and the location to which the system downloads the files depends on the browser that you use to access the Web Control.

Chapter 11: Backing up and restoring the primary server

Backing up IP Office Server Edition server

To recover a failed server or a failed server upgrade the system backs up the configuration of the server, application and user data in a single file set locally or remotely. You can use this backup file to restore the server or a failed server upgrade. The system backs up the configuration of the application to a local drive, in a predefined directory. You can take a backup of the primary server on a local drive or a remote file server, which can optionally be the secondary server.

About this task

You can take a backup of the primary server on a local drive or a remote file server using Web Control Panel:

Procedure

1. Click **Settings**.
 - To take a backup on a local drive, select **Local** in the **Backup & Restore Settings**.
 - To take a backup on a remote file server, type the URL of the remote server or specify a location on the local drive in the **URL** field in the **Backup & Restore Settings**.

* Note:

If you have configured a secondary server in IP Office Server Edition Solution, the system displays the URL of the secondary server in the **URL** field and displays the **Username** as *Administrator*. Type the password of the *Administrator* for the secondary server in the **Password** and **Confirm Password** fields.

2. Click **Save** in the **Backup & Restore settings** section.
 3. Click **Home**.
 4. Click **Backup** in the **IP Office Server Edition Primary Backup & Restore Actions** section.
-

Result

The system backs up the primary server in the location that you specified in the **Backup & Restore Settings** section.

Restoring IP Office Server Edition server

You can restore the primary server using the backup file on a local drive or a remote file server, which can optionally be the secondary server.

Before you begin

Ensure that you shutdown all the services on the server.

About this task

You can restore the primary server using the backup file on a local drive or a remote file server using Web Control:

Procedure

1. Click **Settings**.
 - To restore using the backup file on a local drive, select **Local** in the **Backup & Restore Settings**.
 - To restore using the backup file on a remote file server, type the URL of the remote server in the **URL** field in the **Backup & Restore Settings**.

 Note:

If you have configured a secondary server in a Server Edition network, the system displays the URL of the secondary server in the **URL** field and displays the **Username** as *Administrator*. Type the password of the *Administrator* for the secondary server in the **Password** and **Confirm Password** fields.

2. Click **Save** in the **Backup & Restore Settings** section.
3. Click **Home**.
4. Click **Restore** in the **IP Office Server Edition Primary Backup & Restore Actions** section.

 Note:

You must restore the Voicemail Pro server after you restore the Server Edition Primary server. The Server Edition Primary server restores only those Voicemail Pro backup files that are stored on the Server Edition Primary server when you take a backup of the Server Edition Primary server.

Result

The system restores the primary server using the backup file from the location that you specified in the **Backup & Restore settings** section.

Restoring a failed IP Office Server Edition server

Before you begin

Ensure that you shutdown all the services on the server.

About this task

To restore a failed IP Office Server Edition server:

Procedure

1. Install the IP Office Server Edition server.
For more information about installing, configuring IP Office Server Edition using ignition process and IP Office Server Edition Manager, see Chapter 2 of this document.
2. Restore the following:
 - a. Restore the Server Edition Primary server.
 - b. Restore the Voicemail Pro server.
 - c. Restore the Avaya one-X® Portal for IP Office server.
3. Add the Server Edition Secondary server.
4. Add the Server Edition Expansion System.

Related topics:

[Installing or upgrading IP Office Server Edition server](#) on page 13
[Configuring IP Office Server Edition using the ignition process](#) on page 21
[Configuring IP Office Server Edition server using IP Office Server Edition Manager](#) on page 29
[Adding a Secondary server](#) on page 33
[Adding a Server Edition Expansion System \(V2\)](#) on page 37
[Adding a Server Edition Expansion System \(L\)](#) on page 39
[Restoring Avaya one-X Portal for IP Office](#) on page 72
[Restoring Voicemail Pro stored on IP Office Server Edition server](#) on page 78
[Restoring IP Office Server Edition server](#) on page 94

Chapter 12: Upgrading

Upgrading the components in the IP Office Server Edition Solution

When you download a new version of the software in the repository server for update files, the system displays an  update available icon for the servers, in the **Servers** section.

Before you begin

Ensure that you upgrade an existing IP 500 V2 that is not version 8.1 or later using the IP Office Manager. However, when you install a new Server Edition Expansion System, or a Server Edition Secondary server you can upgrade the Server Edition Expansion System and the Server Edition Secondary server to the same version as the rest of the components of the IP Office Server Edition Solution using Web Control.

About this task

You can upgrade the primary, secondary, and the expansion server of IP Office Server Edition Solution using the Web Control.

Note:

Ensure that the version of the software on all the components of the IP Office Server Edition Solution such as the Server Edition Primary, the Server Edition Secondary, the Server Edition Expansion System, and the separate one-X Portal for IP Office are the same.

Procedure

1. On a client computer, start the browser and type `https:// <IP address of the Server> :<port number>`.
The default port number is 7070.
2. Logon as *Administrator*.
3. Select **Solution Management**.
4. In the **Solution Upgrade File** section type `https://IP address of the host server:port number/abe-x.x.x-x.iso` in the **URL of file containing updates** field.
5. Click **Save File**.

The system displays the status of the file download. If you do not want to download the file click **Cancel**.

6. In the **Solution Upgrade Actions**:

- a. Click **Update Primary**, to upgrade the primary server.
- b. Click **Update Secondary**, to upgrade the secondary server.
- c. Click **Update Expansions**, to upgrade all the expansion servers.

When you upgrade any of the components of the IP Office Server Edition Solution that has the latest version of the software, then the system does not upgrade or restart those components.

The system displays the latest version of the servers in the **Servers** section.

Upgrading the system using a DVD

Before you begin

Ensure that you have completed all the steps in [Installing or upgrading IP Office Server Edition server](#) on page 13.

About this task

To upgrade the IP Office Server Edition:

Procedure

1. Select **Upgrade**.
The system preserves the user data when you upgrade.
2. Click **Next**.
The system displays details such as the location of *upgrade.log* file.
3. Click **Next**.
The system displays the progress of the upgrade. The upgrade process can take up to 30 minutes

Result

The system displays a message if the installation or upgrade is complete.



Next steps

Remove the installation DVD from the DVD drive and click **Reboot**. Log in to the sever using the web browser on another computer in the network.

Chapter 13: Shutting down a system

Shutting down a Server Edition Expansion System (V2) using the IP Office Server Edition Manager

You can shut down a Server Edition Expansion System (V2) using the IP Office Server Edition Manager.

About this task

Warning:

- Do not remove the power cords or turn off the power input to the system to shut down the system.
- All user calls and services that are in progress stop. After you shut down, you cannot use the system to make or receive any calls until you restart the system.
- To restart a system after you shut down indefinitely, or to restart a system before the timed restart, turn on the power supply to the system again.

To shut down a system using IP Office Server Edition Manager:

Procedure

1. Select **File > Advanced > System Shutdown**.
2. In the **Select IP Office** window, select the system that you want to shutdown.
3. In the **System Shutdown Mode** dialog box:
 - Select **Indefinite**, to shut down the system for an indefinite time.
 - Select **Timed** and set the time to restart after the system is shut down.

If you shut down the system for an indefinite time, you must turn off the power to the system and then turn on the power supply again to restart the system.

4. Click **OK**.

For more information on using the IP Office Server Edition Manager, see the *IP Office Manager* document.

Shutting down a Linux server using Web Control

About this task

To shut down a server using the Web Control:

Procedure

1. On a client computer, start the browser and type `https:// <IP address of the server> :<port number>`.
 2. Log on as *Administrator*.
 3. Select **System**.
 4. In the **System** section, click **Shutdown**.
 5. In the **Warning** dialog box, click **Yes** to confirm that you want to shut down the system.
The system displays the login page. Do not log in again because the system is in the process of stopping the services.
 6. After the server is shut down you can turn off the power to the server.
-

Restarting the server using Web Control

To ensure that the system saves the configuration file always restart the system using Web Control.

About this task

To restart a server using the Web Control:

Procedure

1. On a client computer, start the browser and type `https:// <IP address of the server> :<port number>`.
2. Log on as *Administrator*.
3. Select **System**.
4. In the **System** section, click **Reboot**.
5. In the **Warning** dialog box, click **Yes** to confirm that you want to reboot the system.

The system displays the login page. Do not log in again because the system is in the process of stopping the services.

Shutting down a system

Chapter 14: Troubleshooting

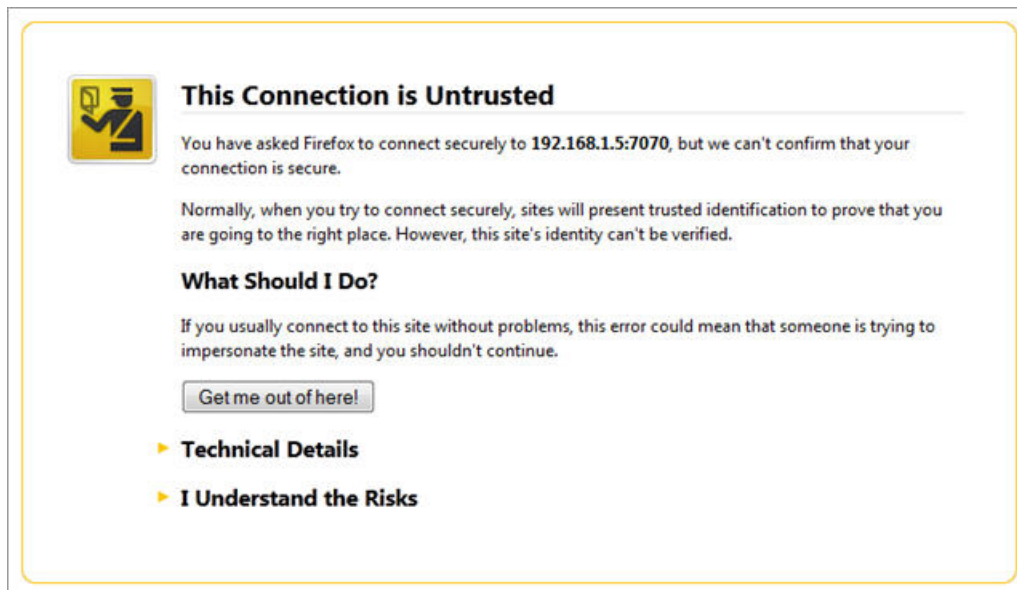
Warning message

When you open a web browser and type `https://<IP address of Server Edition server>`, the system displays the following warning message:

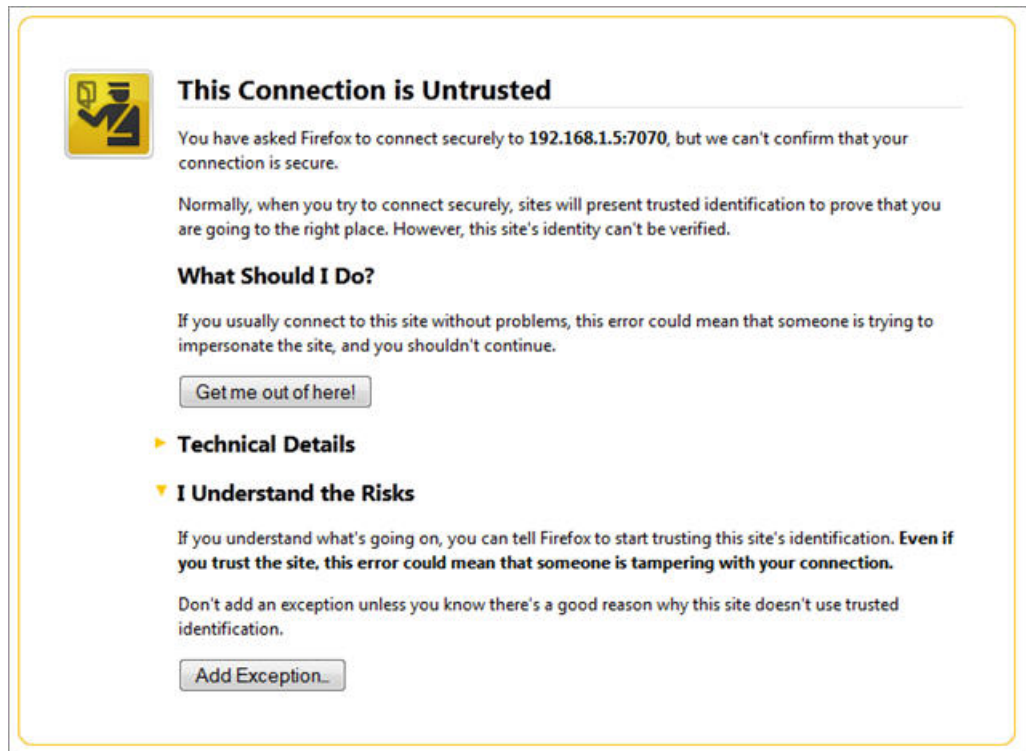
This Connection is Untrusted

*** Note:**

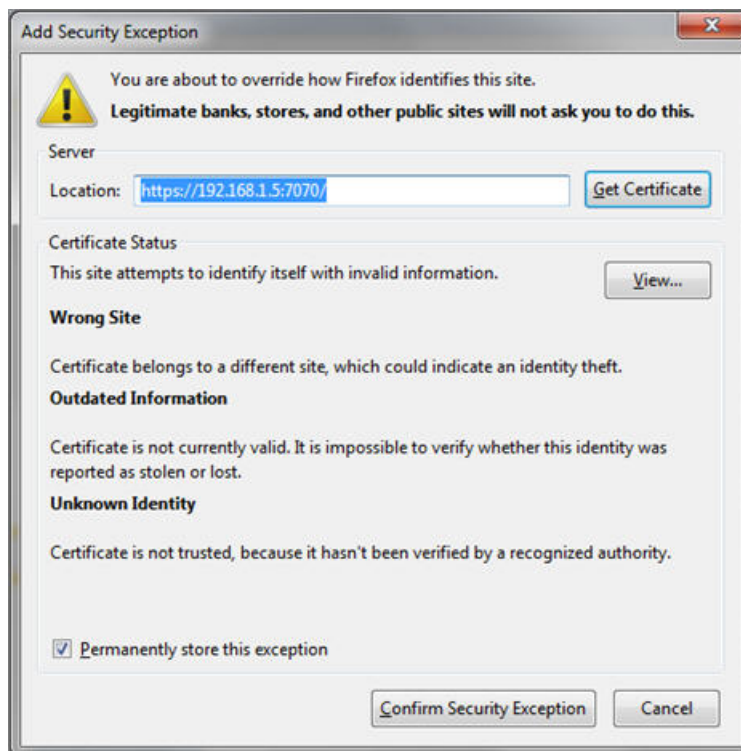
These are the images that the system displays when you open a Firefox browser.



1. Click **I Understand the Risks**.



2. Click **Add Exception.**



3. Click **Confirm Security Exception.**

The system displays IP Office Server Edition login page.

Unable to login. IP Office is under Server Edition Manager Administration.

When you attempt to configure an IP Office Server Edition system that is managed by an IP Office Server Edition Manager using the IP Office Standard Manager, the system displays an error message:

Unable to login. IP Office is under Server Edition Manager Administration

1. Go to **File >Advanced > Security Settings**.
2. Select the IP Office Server Edition system, in the Select IP Office window.
3. Click **OK**.
4. Type the name of the *Security Administrator* in the **Service User Name** field.
5. Type the name of the *Security Administrator* in the **Service User Password** field.
The default user name is *security* and password is *securitypwd*.
6. Select **Services** in the navigation pane.
7. In the Service: Configuration section, set the **Service Access Source** field as *Unrestricted*.
8. Click **OK**.
9. Select **File > Save Security Settings**.
The system unlocks the access for the *Administrator*.
10. Open the configuration and log in as *Administrator*.

All systems appear online in the Web Control of the primary server, but unable to upload the one or more configurations using the IP Office Server Edition Manager.

All systems appear online in the Web Control of the primary server, but appear offline in the IP Office Server Edition Manager.

Solution:

Ensure that there is a bidirectional IP connectivity from IP Office Server Edition Manager personal computer to the devices for the TCP ports 50802–50815.

All systems appear online in IP Office Server Edition Manager, but appear offline on the Web Control of the primary server.

All systems appear online in IP Office Server Edition Manager but appear offline on the Web Control of the primary server.

Solution:

- Ensure that the password of the *Administrator* account on each of the Server Edition Expansion System is same as the *Administrator* password of Server Edition Primary server in the Web Control.
- Ensure that the *Administrator* account on each of the Server Edition Expansion System is the member of Administrator rights group.
- Ensure that there is a bidirectional connectivity from the Server Edition Primary server to the Server Edition Expansion System and Server Edition Secondary server for the TCP ports 8443 and 9080.

Debugging steps

This sections lists the key steps that you need perform to obtain information.

Warning:

You must run the CLI commands only if you are an Avaya support personnel.

About this task

The key steps are:

Procedure

1. Check and report the status of the application.
The status of the application such as: running, stopped, stuck in starting, and stopping.
2. Check the usage of memory.
Check for details such as: the memory that is available on the system and the amount of memory that each application uses.
3. Check for the notifications.
When you restart an application the system displays the notification.

4. View and download the log files.

For more information about viewing and downloading the log files, see *Chapter 10* of this guide.

Related topics:

[Viewing the log files](#) on page 90

[Downloading the log files](#) on page 91

[Logging in as a root user](#) on page 109

[Checking memory usage](#) on page 110

Logging in as a root user

Before you begin

Download and install SSH Secure Shell.

About this task

To login as a root user using SSH Secure Shell.

Procedure

1. Connect to the IP Office Server Edition using an SSH File transfer tool.
 - a. Type the IP address of the IP Office Server Edition server in the **Host Name** field.
 - b. Type the **User Name** as Administrator.
 - c. Set the **Protocol** as **SFTP/SSH**.
 - d. Set the **Port** as **22**.

When you connect to the IP Office Server Edition using an SSH File transfer tool for the first time the system prompts you to accept the trusted key. Accept the trusted key.
 - e. Type the password for the *Administrator*. The default password for the *Administrator* is Administrator.
2. In a new terminal window at the command prompt, type `admin`
The system prompts for a password. The default password is Administrator
3. At the `Admin >` prompt, type `root`
4. Type the root password. The default password is Administrator

The system displays the root user prompt. For example, root@<name of the

```
*****
*           IP Office for Linux           *
*                                         *
*      WARNING: Authorised Access Only      *
*****

Welcome Administrator it is Wed Jun 13 05:05:03 BST 2012
> admin
Please enter password:
Admin> root
Password:
[root@localhost ~]#
```

server>

Checking memory usage

To debug a case you need to check the memory that the system uses.

Before you begin

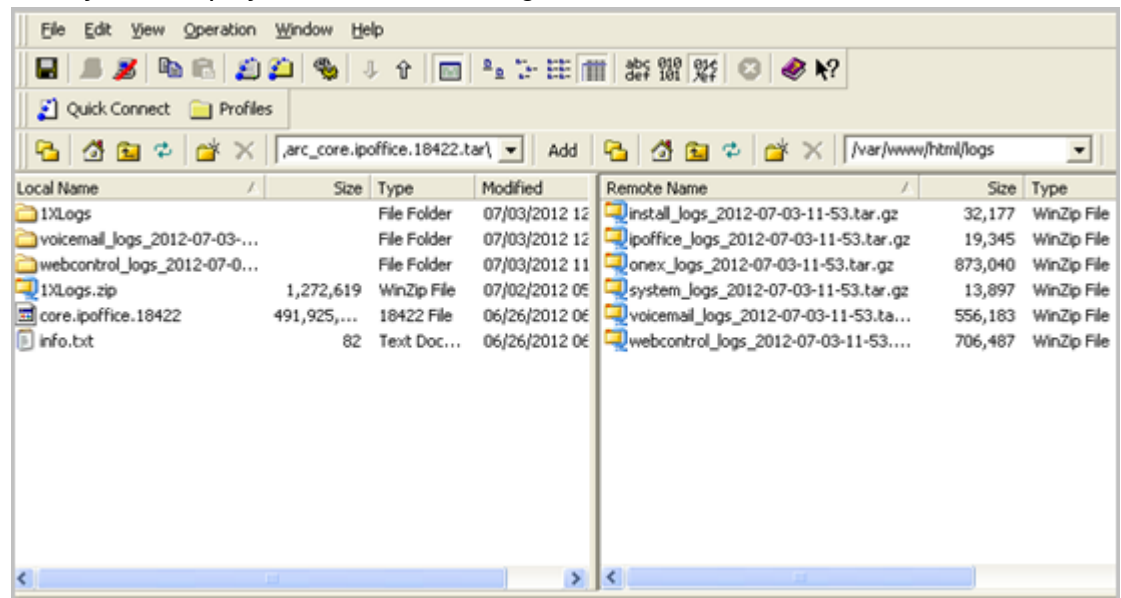
Log in as *Administrator* using SSH Secure File Transfer client

About this task

Procedure

1. Type the path of the system logs folder in the Remote View of the File Transfer window.
The path is /var/www/html/logs.

The system displays the list of all the logs.



2. Move the *system_logs < time and date stamp> tar.gz* file from the Remote View to a location in the Local View of the File Transfer window.
3. In the local computer extract the *system_logs < time and date stamp> tar.gz* file.
4. Go to the tmp folder located in the *system_logs < time and date stamp> tar* that you extracted.
5. Open the *avayasyslog.txt* file.

Result

The system displays the details of memory usage in the table that follows the text + free.

```

/dev/sda2:
+ /sbin/hdparm -I '/dev/hd*'
/dev/hd*: No such file or directory
+ df -h
Filesystem                size      used Avail use% Mounted on
/dev/mapper/rootvg-rootvol 38G       11G     26G   30% /
tmpfs                     1004M        0 1004M    0% /dev/shm
/dev/sda1                  512M       38M    449M    8% /boot
+ tree
      total        used        free      shared    buffers
Mem:    2055876    1995232    60644         0       6116
128240
-/+ buffers/cache:    1860876    195000
Swap:    1048568    101172    947396
+ ps -eo rss,cmd --sort=rss
  RSS CMD
    0 [kthreadd]
    0 [migration/0]
    0 [ksoftirqd/0]
    0 [migration/0]

```

IP Office Server Edition certificates

IP Office Server Edition server uses the following X.509 certificates to identify secure web server and administrative interfaces.

Linux Web Control identity certificate

IP Office Server Edition server uses the Linux Web Control identity certificate for:

- Browser access to Web Control.
- Secure Shell access (SSH v2).

IP Office identity certificate

IP Office Server Edition server uses the IP Office identity certificate for:

- Access through IP Office Manager IP Office Server Edition Manager.
- Browser access to Web Management for on boarding.

Avaya one-X® Portal for IP Office identity certificate

IP Office Server Edition server uses the Avaya one-X® Portal for IP Office identity certificate for:

- Browser access to Avaya one-X® Portal for IP Office when you choose to use HTTPS.

Identity certificates

Default identity certificates

- After ignition all Linux Web Control identity certificates are the same; self-signed, expired and issued to 'Avaya inc.'
- On initial start-up, the system generates IP Office identity certificate that is self-signed, valid for seven years and issues it to 'ipoffice-xxxxxxxxx.avaya.com' where xxxxxxxx is a unique identifier for that IP Office.
- After ignition, all Avaya one-X® Portal for IP Office identity certificates are the same; self-signed, valid till 2013 and issued to Avaya one-X® Portal for IP Office.

Administering identity certificates

- You can administer the Linux Web Control identity certificate using the Linux command. For more information see, *Administering Linux based web server* section of this guide.
- You can administer the IP Office identity certificate using Security Mode in IP Office Manager. For more information see, *Security Administration* section of *IP Office Manager* document.
- You cannot administer the Avaya one-X® Portal for IP Office identity certificate.

PKI and trust domains

IP Office Server Edition does not support PKI authorization and trust domains.

* Note:

Ensure the following:

- Do not set security level of any IP Office services to *Secure, High*.
- Set Received Certificate Checks (Management Interfaces) to only *None*.
- Set Received Certificate Checks (Telephony Endpoints) to only *None*.

Related topics:

[Administering Linux based web server](#) on page 113

Administering Linux based web server

Before you begin

Log in to the Linux based web server as root user.

About this task

To generate a unique valid self-signed certificate for the Linux based server do the following:

Procedure

1. To stop Web Control, type `service webcontrol stop`

```
Admin> root
Password:
[root@ServerEdition ~]# service webcontrol stop
Web control interface stopped
[root@ServerEdition ~]#
```

2. To generate a 1024 bit key, type `openssl genrsa -des3 -out server.key 1024`

```
[root@ServerEdition ~]# openssl genrsa -des3 -out server.key 1024
Generating RSA private key, 1024 bit long modulus
.+++++
.....+++++
e is 65537 (0x10001)
Enter pass phrase for server.key: █
```

3. Type a pass phrase for the `server.key` .
Re-type the pass phrase when the system prompts you to enter the pass phrase for verification.
4. Type `openssl req -new -key server.key -out server.csr` to generate a certificate signing request.

```
Enter pass phrase for server.key:
Verifying - Enter pass phrase for server.key:
[root@ServerEdition ~]# openssl req -new -key server.key -out server.csr
Enter pass phrase for server.key:
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [XX]: █
```

5. Type the details that the system prompts you for information that will be incorporated in the certificate.

```
Enter pass phrase for server.key:
Verifying - Enter pass phrase for server.key:
[root@ServerEdition ~]# openssl req -new -key server.key -out server.csr
Enter pass phrase for server.key:
You are about to be asked to enter information that will be incorporated
into your certificate request.
What you are about to enter is what is called a Distinguished Name or a DN.
There are quite a few fields but you can leave some blank
For some fields there will be a default value,
If you enter '.', the field will be left blank.
-----
Country Name (2 letter code) [XX]:GB
State or Province Name (full name) []:[Berkshire]
Locality Name (eg, city) [Default City]:Newbury
Organization Name (eg, company) [Default Company Ltd]:Avaya
Organizational Unit Name (eg, section) []:AvayaSE
Common Name (eg, your name or your server's hostname) []:SE1234
Email Address []:avaya@avaya.com

Please enter the following 'extra' attributes
to be sent with your certificate request
A challenge password []:
An optional company name []:
[root@ServerEdition ~]# █
```

*** Note:**

You can leave the parameters *A challenge password* and *An optional company name* blank.

6. Type `cp server.key server.key.org` and `openssl rsa -in server.key.org -out server.key` to remove pass phrase from the key.

The system prompts you to enter the pass phrase that you set for the key.

```
[root@ServerEdition ~]# cp server.key server.key.org
[root@ServerEdition ~]# openssl rsa -in server.key.org -out server.key
Enter pass phrase for server.key.org:
writing RSA key
[root@ServerEdition ~]#
```

7. To generate a self-signed certificate that is valid for about 5 years, type `openssl x509 -req -days 1781 -in server.csr -signkey server.key -out server.crt`

Where the parameter `—days` is number of days for which the certificate is valid.

```
[root@ServerEdition ~]# cp server.key server.key.org
[root@ServerEdition ~]# openssl rsa -in server.key.org -out server.key
Enter pass phrase for server.key.org:
writing RSA key
[root@ServerEdition ~]# openssl x509 -req -days 1781 -in server.csr -signkey server.key
Signature ok
subject=/C=GB/ST=[Berkshire]/L=Newbury/O=Avaya/OU=AvayaSE/CN=SE1234/emailAddress=avaya@newbury.co.uk
Getting Private key
[root@ServerEdition ~]#
```

8. To concatenate the key and the certificate, type `cat server.key > server.pem` and `cat server.crt >> server.pem`
9. To update the certificate for Web Control, type `cp server.pem /opt/webcontrol/certificate/`

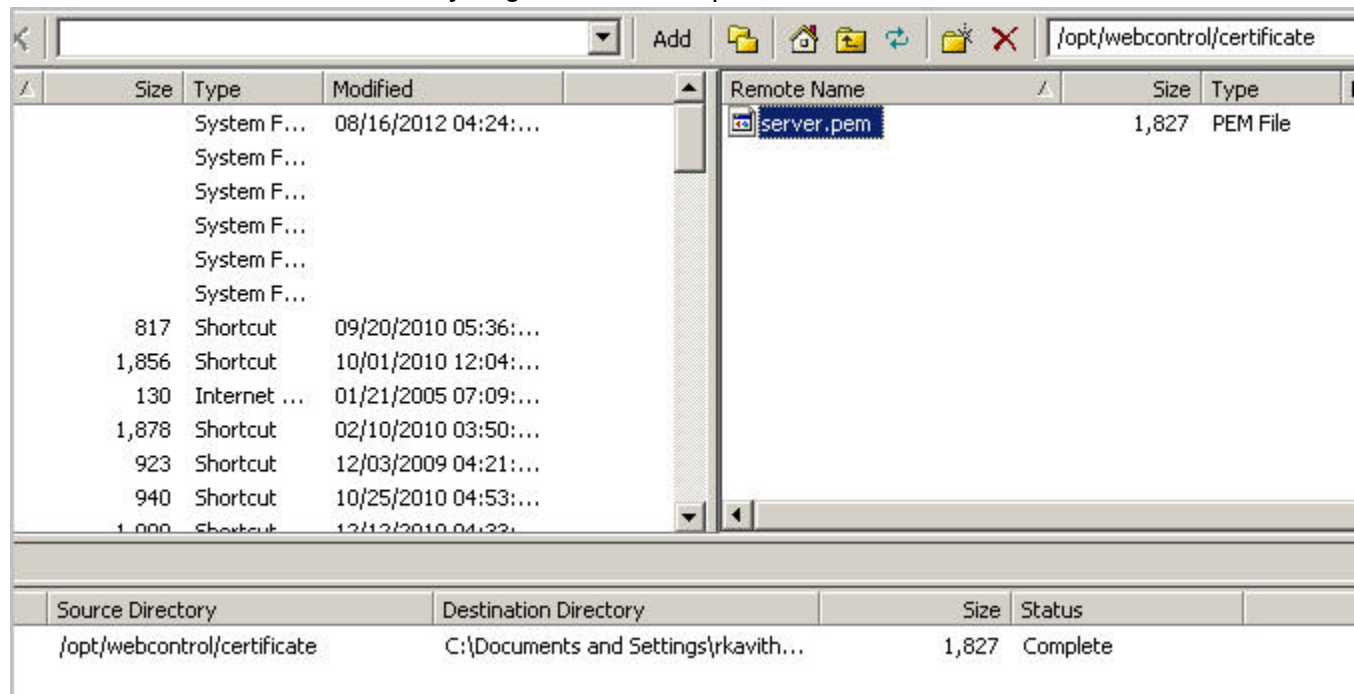
If you want to overwrite the certificate that already exists, type `y`, when the system prompts you.

```
[root@ServerEdition ~]# cat server.key > server.pem
[root@ServerEdition ~]# cat server.crt >> server.pem
[root@ServerEdition ~]# cp server.pem /opt/webcontrol/certificate/
cp: overwrite '/opt/webcontrol/certificate/server.pem'? y
```

10. To exit as root user, type `exit`

Result

You can locate the certificate that you generated in /opt/webcontrol/certificate



Example

You can identify certificate that was created externally, based on the following :

- The certificate and corresponding private key must be in a single PEM formatted file
- The content of the certificate should be: - X.509 V3 - RSA key size 1024 or 2048 bit
- Common name or the distinguished name must be used for subject and issuer fields, not the alternate name

The H323 phones do not automatically register back to the Primary server

```
server.pem - Notepad
File Edit Format View Help
-----BEGIN RSA PRIVATE KEY-----
MIICXAIBAAKBgQCsm3Qv0Bzd4CirkzG0BxyReqjT4Em3prjo2ybnxCPXJQu29IM2
rUyuqusVPox+6AioXYPOvddtro7XfpVYXUnWlhkLITQGwYJWEZyJOEHA1fDFBX0B
RXd4Swu08Pedjdqyy2p9u6PwPGYk17QrBFmwo60Iy+1lOeos4+pS3e47gQIDAQAB
AoGAD6pcNSqxnPUHNws7Ip2M3LdBM1mb1ysuhRO+yDJov+wA0C4I6qF34DJq+5ad
GrF8d6t1FxFrXuyC0jCehvKSLNP19C7A4EhYogdT4OYZJzFL8AA5FmBaNmYAToH8
fcjXkI75MQig0sXo4JEJiWBQa47RiYuodewNeL2q3PgDB0ECQqDiYdWZrDarxnnE
VTx+f4EVRTrEXGouX/2t0gegcm8iBxiASACofGEZGXJrG3tCfuJAiN8nw1BXGUXG
h9UrP8DNAkEAWtCJ8cm3DHwDlp466H9lEfCgxrEXjwDKX2Y+hI42oLJ2Q3wC3Y/7
2JkHY2Gp/xDeMsNo80A1qP8naLiHcfdvHQJBAIobvwkFKpk8wRatQD3ooHBHjKMh
PkhxBrYofGSQBA4qPp0zNR967p4yNkQR3qXoHEQ6z0V3E8h31dvYV8yRYS ECQD/v
MbxALgVSCV7sIgKP0i4L17hOLpi0Opj8p1jIos91CFfdphaumGUC5a/CjG47OYDK
EnU3QR1H0sJlUpUwsf0CQFFEdIixcmQXNs04nBpox3rPCxYGrEvUwX7UDRW1iTLw
Mx4/wWgMi3w4TzUuz+tC17nyqvF1Pn1FjUk2k0Xw4OM=
-----END RSA PRIVATE KEY-----
-----BEGIN CERTIFICATE-----
MIICiTCCAfiCCQDC+1hanyKh0ZANBgkqhkiG9w0BAQUFAwCBiDELMAkGA1UEBhMC
R0IXFDASBgNVBAGMCltcZXJrc2hpcmVdMRAwDgYDVQQHDAAdoZXdxJ5MQ4wDAYD
VQQKDAVBdmF5YTEQMA4GA1UECwwHQXZheWFTRETPMA0GA1UEAwwGU0UxMjM0MR4w
HAYJKoZIhvcNAQkBFg9hdmF5YUBhdmF5S5j5b20wHhcnMTIwODIyMTewMDQ1whcN
MTcwNZA4MTEwMDQ1wJCBiDELMAkGA1UEBhMCR0IXFDASBgNVBAGMCltcZXJrc2hpc
cmVdMRAwDgYDVQQHDAAdoZXdxJ5MQ4wDAYDVQQKDAVBdmF5YTEQMA4GA1UECwwH
QXZheWFTRETPMA0GA1UEAwwGU0UxMjM0MR4wHAYJKoZIhvcNAQkBFg9hdmF5YUBh
dmF5S5j5b20wGZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAKybdC/QF13gKKuT
ODQFFJF6qNPg5bemuojbJufFw9c1C7b0gzatTK6q6xU+hf7oCKhdg869122ujtcw
1vhdsdYUGQshNAbBgnARnIk4QCDV8MUffQFFd3hJa7Tw952N2pjLan27o9Y8ZiTX
tCsEWbA7rQjL7WU56izj61Ld7jUBAgMBAAEwDQYJKoZIhvcNAQEFBQADgYEABB7H
r5AtNY4krjLv0tkyi4DMJ2ZatPnoJ2U0y3JbEzfkmk3Rt1jf9KZaso5M0kmd7yOX
QWouGb7Lv6Fu/kQ3yBj+PEMVlQEFJixx2wfwTMzutfc90YQsixw06EdgIrScqPBX
sjZx0ZJ7baEMwUQv2w0ZAAGmVrTJB7a18SZvjY=
-----END CERTIFICATE-----
```

Related topics:

[Logging in as a root user](#) on page 109

The H323 phones do not automatically register back to the Primary server

IP Office Server Edition Solution provides resilience to some of the functions. When the Primary server is non functional the Secondary server provides resilience. The system temporarily logs the users of the H323 phones logged on the Primary server to the Secondary server. However, even after the Primary server is functional the users of the H323 phones remain logged on the Secondary server.

Solution

To ensure that the H323 phone users are logged back to the Primary server, reset the H323 phones.

Unable to export template

After you change the common configuration Administrator password for the servers using the IP Office Server Edition Manager, when you export a template from Server Edition Primary server, Server Edition Secondary, or Server Edition Expansion System (L). The system displays an error message : HTTP request failed:401 Unauthorized

Solution

About this task

After you change the common configuration Administrator password for the servers using the IP Office Server Edition Manager you must also update the same password for *Administrator* account of the Server Edition Primary and Server Edition Secondary servers using the Web Control.

Procedure

Change the password for *Administrator* account using Web Control.

For more information, see [Changing the Administrator password](#) on page 83.

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