



# **Configuration Backup Restore**

June 2010

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# Chapter 1: Configuration Backup Restore

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## Configuration Backup Restore overview

The Configuration Backup Restore application allows you to backup and restore device configurations, and configure multiple devices. To exchange information with devices in the network, Configuration Backup Restore uses the following protocols:

1. Secure Copy Protocol (SCP)
2. File Transfer Protocol (FTP)
3. Trivial File Transfer Protocol (TFTP)

### **Important:**

When using FTP or SCP protocols, an appropriate server must be installed on an accessible management station, and the user name, password, and path to the server must be specified in the **File Transfer Protocols** tab of the **Options** dialog box.

Configuration Backup Restore allows you to manually back up device configurations, schedule periodic automatic back up of device configurations, reinstall the back up device configuration to the device.

Device configurations are saved in files which are stored in a library. A configuration file can be downloaded to any appropriate device. For example, if you saved the configuration of an Avaya G250 Device, it can only be downloaded to an Avaya G250 Device. You can also select a group of devices to which you can download a single configuration file. This can result in a consistent configuration of the devices in your network.

### **Note:**

In this documentation help system, 'uploading' always refers to information being copied from the device to the application, and 'downloading' always refers to information being copied from the application to devices.

### **Related topics:**

[What's new in this release](#) on page 6

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## What's new in this release

There are no new features in the Network Management Release 6.0.

The new features that were supported in the previous release, Network Management Release 5.2 service pack are listed below.

The Avaya Network Configuration Manager application's name has been changed to the Configuration Backup Restore. It was known as the Avaya Network Configuration Manager till Release 5.0.

The Network Management Release 5.2 service pack in support of the Avaya Aura™ Communication Manager Release 5.2 introduces the following new features for the Communication Manager Branch Edition 2.0:

Support for new devices:

- Avaya Aura™ Communication Manager Branch G430 Telephony Server
- Avaya Aura™ Communication Manager Branch G450 Telephony Server

This release also supports the Avaya G430 H.248 Media Gateway.

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## Basic tasks

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### Starting CBR

1. To start the Configuration Backup Restore from the server on which Configuration Backup Restore is installed, select **Tools > Avaya Configuration Backup and Restore Manager**  
Configuration Backup Restore opens.
2. To start CBR from a web browser:
  - a. Using Microsoft Internet Explorer, go to the Launch Products page, and click **Configuration Manager** in the Maintenance section.  
The system displays the Login dialog box.
  - b. In the **User Name** box, enter your user name.
  - c. In the **Password** box, enter your password.

- d. Click **Login**.  
The system displays the Configuration Backup Restore window.

---

## Managing jobs

The Scheduled Jobs dialog box (**Actions > Jobs > Scheduled Jobs**) enables you to manage backup and restore jobs created with the Backup Wizard or Restore Wizard. Using the Scheduled Jobs dialog box, you can create, edit, and delete backup jobs and delete existing restore jobs.

The top of the **Scheduled Jobs** dialog box contains a list of all scheduled periodic backup and scheduled restore jobs configured on the network.

Field	Description
<b>Name</b>	The name of the backup or restore job. Restore job names are generated and begin with "Restore."
<b>Next Backup</b>	The date and time at which the backup job is scheduled to run next. Contains "None" for restore jobs.
<b>Period</b>	The basis for the recurrence pattern of the job. Possible periods are: <b>Daily</b> The backup is performed every x days. <b>Weekly</b> The backup is performed every x weeks. <b>Monthly</b> The backup is performed every x months. <b>Restore</b> A one-time scheduled restore job.
<b>Devices</b>	A list of the names of devices backed up or restored.
<b>User</b>	The name of the person who created or last modified the backup or restore job.

To create a new backup job, click **New job**. The Backup Wizard opens with the [Creating a backup job](#) on page 8.

 **Note:**

Restore jobs cannot be created using the **New Job** button. Start the [Creating a restore job](#) on page 8 to create a new restore job.

To edit a backup job:

 **Note:**

Restore jobs cannot be edited using the **Edit** button. Delete the job and then start the [Creating a restore job](#) on page 8 to create a new restore job.

1. Select a job from the list of jobs.
2. Click **Edit**. The Backup Wizard opens with the [Creating a backup job](#) on page 8. The system displays the parameters of the selected backup job in the Backup Wizard screens.

To delete a backup or restore job:

1. Select a job from the list of jobs.
2. Click **Delete**. A confirmation dialog box opens.
3. Click **Yes**. The job is deleted.

**Related topics:**

[Creating a backup job](#) on page 8

[Creating a restore job](#) on page 8

## Creating a backup job

You can do the following with the backup wizard:

- Back up the configurations of all or some of the devices in your network.
- Schedule periodic automated backups. This can help you maintain an archive of your devices' configurations over time.
- Change the parameters of existing backup jobs.

 **Note:**

If you configure a backup job from a workstation working via remote access, the backup files are saved on the server.

- 
1. Select **Actions** > **Backup**.
  2. Click **New** in the Jobs dialog box.
  3. Use the panels in the wizard to create backup policy for your configurations.
- 

## Creating a restore job

You can do the following with the restore wizard:

- Restore the configurations of one or more of the devices in your network.
- Schedule delayed restores during convenient off hours

Existing restore jobs cannot be edited. If you need to make a change, you will have to delete the existing job and create a new one.

 **Note:**

If you configure a restore job from a workstation working via remote access, the backup files must have been saved on the server.

- 
1. Select **Actions** > **Restore**.
  2. Use the panels in the wizard to configure the restore job.
- 

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## Saving device configurations

Configuration Backup Restore enables you to manually save the configurations of selected devices and to create backup jobs for automatically saving the configuration of all or some of the devices listed in the Device Table. The Device Table lists discovered devices and displays information about them.

- 
1. Select a device in the Device Table.

 **Note:**

You can upload the configurations of several devices by selecting them before you open the Upload dialog box.

2. Select **Actions** > **Upload**.  
The Upload dialog box opens displaying one row for each configuration type found in the selected device.
  3. Select the configuration types you want to upload.
  4. Click **Upload**.  
The system displays a progress bar above the **Upload** button, and the upload begins.  
The progress bar next to each configuration type shows the progress of the upload of that configuration. The progress bar that appears above the **Upload** button shows the progress of the entire upload.
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## Using tooltips

Configuration Backup Restore includes a tooltip feature that allows you to display additional information about devices and software versions. Tooltips are available in the following places:

## Device View

To display additional information about a device, place the cursor anywhere on the device's row. After about one second, the system displays a tooltip with information about the device. The following information displays:

- Device Name** Name of the device (as known to Configuration Backup Restore). (From the **Name** column of the Device Table.)
- Device IP** IP address of the device. (From the **IP** column of the Device Table.)
- Module Number** The slot in which the module is located in the device. For stackable devices, this is the module's position in the stack. (From the **Module** column of the Device Table.)
- Version** The software version running on the device at the current time.
- Last Operation** The last configuration operation performed on the device. (From the **Last Operation** column of the Device Table.)

Device Name:	135.64.24.164
Device IP:	135.64.24.164
Module Number:	1
Version:	4.1.6
Last Operation:	<b>None</b>

File name:	135.64.24.164_Module_1_ModuleConfig_1193373429734
Version	4.1.6

To toggle the status of the tooltips feature, select **View > ToolTip**.

## Library View

To display information about a configuration file, place the cursor over a configuration file in the Library View. After about one second, a tooltip appears with information about the selected configuration. The following information displays:

- File Name** The command line interface (CLI) name of the configuration file. (From the **File/Desc** column of the Library Table.)
- Version** The software version running on the device at the time of the file creation.

---

## The device table

### Information displayed in the device table

The Device Table displays the following information about each device:

<b>Name</b>	Name of the device (as known to Configuration Backup Restore).
<b>IP</b>	IP address of the device.
<b>Module</b>	The slot in which the module is located in the device. For stackable devices, this is the module's position in the stack.
<b>Type</b>	The type of device.
<b>Last Operation</b>	The last configuration operation performed on the device. Options are:
<b>Upload</b>	The device's configuration was uploaded manually.
<b>Backup</b>	The device's configuration was uploaded using an immediate backup.
<b>Backup: &lt;Job Name&gt;</b>	The device's configuration was automatically uploaded by the <Job Name> periodic backup job.
<b>Download</b>	A configuration file was downloaded manually to the device.
<b>Restore</b>	A configuration file was downloaded using an immediate restore.
<b>Restore: &lt;Job Name&gt;</b>	A configuration file was automatically downloaded by the <Job Name> restore job.
<b>Time</b>	The date and time at which the last operation occurred.
<b>By</b>	The owner of the last operation.

### Device table filtering

You can filter the Device Table in order to reduce the number of devices currently displayed. This can make it easier to work by eliminating devices from the display. You can later add these devices back to the list by removing the filter, without having to re-discover the devices.

When filtering, you can select:

- Devices by name, IP address, or group.
- Families of devices and specific module types. Under each product family name, one or more module types are listed. To display module types, click the handle next to the product family.

When you select a product family, all the module types are automatically selected. You can then clear any module types that you do not want to select.

To filter the Device Table:

1. Select **Actions** > **Filter**.
2. To filter by **Select Criteria**, enter the **Device Name** and/or **IP Address** and/or select a group from the **Select Group** drop-down list.
3. To filter by **Device Type**, select the check boxes of the device and modules types you want to see in the Device Table. Clear the check boxes of the device and module

types you do not want to appear in the Device Table. To select all device and module types, select **All**.

4. Click **Apply**. The filter is activated and the dialog box closes.



**Note:**

When the filtering criteria are active, the system displays  in the Status Line.

## The library view

### The library table

The Library Table lists the configuration files in the library. The Library Table is used for downloading configurations to appropriate devices.

The Library Table displays the following information about each file in the library:

<b>Name/Desc</b>	Name of the device (from the platform) from which the file was uploaded.
<b>IP</b>	IP address of the device from which the file was uploaded.
<b>Module</b>	The slot in which the module is located in the device from which the file was uploaded. For stackable devices, this is the module's position in the stack.
<b>Device Type</b>	The type of device.
<b>Software</b>	The software version running on the device at the time of the file creation.
<b>File Type</b>	The file type. Indicates whether the file is a Running Configuration file or a Startup Configuration file.
<b>Job Name</b>	The name of the job that created the configuration file.
<b>Time</b>	The date and time at which the configuration file was created or last modified.
<b>Created By</b>	The source of the configuration file. Options are:
<b>Upload</b>	The configuration file was created by an immediate backup job.
<b>Edit</b>	The configuration file was created or modified using the File Editor.
<b>Unknown</b>	The source of the configuration file is unknown.
<b>User</b>	The name of the person who created or last modified the configuration file.
<b>File</b>	The command line interface (CLI) name of the configuration file.

 **Note:**

Files for Avaya Aura™ Communication Manager Branch are encrypted and cannot be edited, compared, or deleted.

### Library table filtering

By default, all of the configuration files in the library are displayed in the Library Table. Filtering the files displayed in the Library Table can help you focus on the files with which you want to work.

When filtering, you can select:

- Devices by name, IP address, or group.
- Families of devices and specific module types. Under each product family name, one or more module types are listed. To display module types, click the handle next to the product family.

When you select a product family, all the module types are automatically selected. You can then clear any module types that you do not want to select.

Files by backup job name, date, and types.

To filter the Library Table:

Select **Actions** > **Filter**. The Filter dialog box opens.

1. To filter by **Select Criteria**, enter the **Device Name** and/or **IP Address** and/or select a group from the **Select Group** drop-down list.
2. To filter by **Device Type**, select the check boxes of the device and modules types you want to see in the Library Table. Clear the check boxes of the device and module types you do not want to appear in the Library Table. To select all device and module types, select **All**.
3. To filter by **File Types**, select the check boxes of the file types you want to see in the Library Table. Clear the check boxes of the file types you do not want to appear in the Library Table.
4. Click **Apply**. The filter is activated and the dialog box closes.

 **Note:**

When the filtering criteria are active, the system displays  in the Status Line.

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## Configuring the FTP server

### Prerequisites

Before you can configure the FTP server in Configuration Backup Restore, you must first install the FTP server on the Network Management system.

 **Important:**

By default, the Network Management installation does not install the FTP server.

1. From the FTP server, create an FTP user.
2. Set the new FTP user's home directory permissions to read and write.

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To configure the FTP server on Configuration Backup Restore

After installing the FTP server, you can configure it using the File Transfer Protocol tab of the Options dialog box of the Configuration Backup Restore as follows:

- 
1. From the **Options** dialog box, select the **File Transfer Protocol** tab.
  2. Perform the following steps in the Configuration Backup Restore application:
    - a. Set the **FTP Global Use** field to Enabled.

 **Note:**

For the Configuration Backup Restore to use the FTP protocol, enter Enabled in the FTP Global Use field.

For the Configuration Backup Restore to use the TFTP/SCP protocol, enter Disabled in the FTP Global Use field.

- b. In the **FTP User Name** field, use the same FTP user name as created in step 1.
  - c. In the **FTP Password** field, use the same password that was used to create the FTP user in step 1.
  - d. Set the **FTP Server Path** field to the home directory path of the FTP user created in step 1
- 

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## Setting Configuration Backup Restore options

Using the Options dialog box, you can configure Configuration Backup Restore options. The **General** tab of the Options dialog box enables you to configure the default downloading action and the report type and path.

The **File Transfer Protocols** tab of the Options dialog box enables you to configure the protocol to use for transferring files.

**Related topics:**

[General tab](#) on page 15

[File Transfer Protocols tab](#) on page 16

## General tab

You can use the **File > Options > General** tab to do the following:

- [Select a Report Location](#) (Default Report Path)
- [Select a Report Format](#) (Format of Report File)
- [Set the Default Action When Downloading](#)
- [Set the Program Used for Comparing Files](#) (Path to Diff Program)

To undo all changes made in the Options dialog box before they are applied, click **Refresh**. All unsaved changes to the dialog box will be discarded.

### Select a Report Location

Configuration Backup Restore reports are saved on the computer from which the application is run. If you are running Configuration Backup Restore via remote access, reports are saved on the client computer, not the server.

To select a directory to which Configuration Backup Restore reports are saved:

### Select a Report Format

Configuration Backup Restore can create text reports in one of these formats:

**CSV (Comma Separated)** The information in the table rows are separated by commas.

**Tab Delimited Format** The information in the table rows are separated by tabs.

### Set the Default Action When Downloading

You can configure the default response of Configuration Backup Restore when a download is going to start. The possible actions are:

**Request Confirmation** A confirmation dialog box opens asking you to confirm the download.

**Do Not Request Confirmation** Configuration Backup Restore will start the download without requesting confirmation.

### Set the Program Used for Comparing Files

Configuration Backup Restore enables you to compare configuration files between similar devices, or between different versions on the same device. This capability requires defining the software used to display the differences in the configuration files.

## File Transfer Protocols tab

Use the **File > Options > File Transfer Protocols** tab to configure the protocols used for transferring files with Configuration Backup Restore.

Field	Description
<b>SCP Global Use</b>	<p>The state of SCP usage for Configuration Backup Restore Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled- SCP is used for devices that support SCP. Devices that do not support SCP use FTP if FTP Global Use is enabled, otherwise TFTP is used.</li> <li>• Disabled- SCP is not used. FTP is used for all devices if FTP Global Use is enabled, otherwise TFTP is used.</li> </ul>
<b>SCP User Name</b>	A user name defined on the SCP server. This is the SCP user that Configuration Backup Restore will use.
<b>SCP Password</b>	The password defined on the SCP server for the configured SCP user. Using the utility provided with the Network Management offer, you can create a new SCP user and/or change the password for an existing SCP user. After creating a user, you can use the user for the Configuration Backup Restore.
<b>Retype SCP Password</b>	The password defined on the SCP server for the configured SCP user. The password is entered twice to ensure that it is entered correctly.
<b>SCP Server Secure Path</b>	The path to the root of the secure path configured on the SCP server.
<b>FTP Global Use</b>	<p>The state of FTP usage for Configuration Backup Restore. Possible values:</p> <ul style="list-style-type: none"> <li>• Enabled- If SCP is disabled, or SCP is not supported, then FTP is used for devices that support FTP. Devices that do not support FTP use TFTP.</li> <li>• Disabled- FTP is not used. If SCP is disabled, or a device does not support SCP, then TFTP is used.</li> </ul> <p> <b>Note:</b> To use the <b>FTP Global Use</b> field, you must install FTP Server on the Network Management Station. By default, the FTP server is not installed as a part of the Network Management installation.</p>
<b>FTP User Name</b>	A user name defined on the FTP server. This is the FTP user that Configuration Backup Restore will use.
<b>FTP Password</b>	The password defined on the FTP server for the configured FTP user.

Field	Description
<b>Retype FTP Password</b>	The password defined on the FTP server for the configured FTP user. The password is entered twice to ensure that it is entered correctly.
<b>FTP Server Path</b>	Root location of the secure path configured on the FTP Server. For more information, see <a href="#">Configuring the FTP server</a> on page 13.
<b>TFTP Server Secure Path</b>	The path to the root of the secure path configured on the TFTP server.

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## Using tooltips

Configuration Backup Restore includes a tooltip feature that allows you to display additional information about devices and software versions. Tooltips are available in the following places:

### Device View

To display additional information about a device, place the cursor anywhere on the device's row. After about one second, the system displays a tooltip with information about the device. The following information displays:

- Device Name** Name of the device (as known to Configuration Backup Restore). (From the **Name** column of the Device Table.)
- Device IP** IP address of the device. (From the **IP** column of the Device Table.)
- Module Number** The slot in which the module is located in the device. For stackable devices, this is the module's position in the stack. (From the **Module** column of the Device Table.)
- Version** The software version running on the device at the current time.
- Last Operation** The last configuration operation performed on the device. (From the **Last Operation** column of the Device Table.)

Device Name:	135.64.24.164
Device IP:	135.64.24.164
Module Number:	1
Version:	4.1.6
Last Operation:	<b>None</b>

File name:	135.64.24.164_Module_1_ModuleConfig_1193373429734
Version	4.1.6

To toggle the status of the tooltips feature, select **View > ToolTip**.

## Library View

To display information about a configuration file, place the cursor over a configuration file in the Library View. After about one second, a tooltip appears with information about the selected configuration. The following information displays:

**File Name** The command line interface (CLI) name of the configuration file. (From the **File/Desc** column of the Library Table.)

**Version** The software version running on the device at the time of the file creation.

---

## Generating Reports

Configuration Backup Restore can generate the following reports:

**Library Report** A report listing the configuration files stored in the library. (This information can be viewed in the Library Table.)

**Scheduled Jobs Report** A report listing scheduled backup jobs. (This information can be viewed in the Jobs dialog box.)

**Last Operations Report** A report listing the last upload/download operation on each device in the Device View. (This information can be viewed in the Device Table.)

Reports are saved as text files, with the fields in each item separated by commas or tabs. For more information on configuring report options, refer to [General tab](#) on page 15.

### Note:

Reports are saved on the computer from which the application is run. If you are running Configuration Backup Restore via remote access, reports are saved on the client computer, not the server.

- 
1. Select **File > Report**.  
The Report dialog box opens.
  2. Select a **Report Format**.  
For more information on report formats, refer to [General tab](#) on page 15.
  3. Select a **Report Type**.
  4. Enter a name for the report in the **Report File Name** field.
  5. Click **Generate Report**.  
The selected report is generated and saved to the specified file.
-

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## Configuration files

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### The Configuration Editor User Interface

To edit a configuration file:

1. Select an editable configuration file in the Library View.
2. Click **Editor**.
3. Select **Tools > Editor**.

The Configuration Editor opens with the selected configuration file.

The Configuration Editor consists of the following components:

- Configuration editor menus - Menus for accessing all Configuration Editor functions.
  - [Configuration Editor Toolbar](#) on page 19 - Toolbar buttons for accessing most of the Configuration Editor's functions.
  - [Editing Window](#) - A window where the text of the configuration file appears and can be edited.
  - [Status Bar](#) on page 29 - An area at the bottom of the Configuration Editor where information about the file being edited is displayed.
- 

### Configuration Editor Toolbar

The Configuration Editor toolbar provides shortcuts to the main Configuration Editor functions.

Icon	Menu item	Description
	<b>File &gt; Save</b>	Saves the edited configuration file.
	<b>Edit &gt; Undo</b>	Undoes the last action.
	<b>Edit &gt; Cut</b>	Cuts the selected text to the clipboard.

Icon	Menu item	Description
	<b>Edit &gt; Copy</b>	Copies the selected text to the clipboard.
	<b>Edit &gt; Paste</b>	Pastes the selected text from the clipboard.
	<b>Action &gt; Download</b>	Opens the Download dialog box with the edited configuration.
	<b>Help &gt; Help On</b>	Opens context-sensitive online help.

## Downloading configuration files

**Related topics:**

[Downloading](#) on page 20

[Downloading Edited Files](#) on page 22

## Downloading

 **Note:**

When you download a file, the protocol used appears in the log. For information about configuring the download protocol, refer to the [File Transfer Protocols tab](#) on page 16.

1. In the Library Table, select the configuration file you want to download to one or more devices.
2. Select **Actions > Download**.
3. Select modules or devices to which you want to download the selected configuration file.

The Possible Destinations list contains a list of all modules and devices to which it is appropriate to download the selected configuration file. The configuration file will only be downloaded to modules and devices in the Selected Destinations list.

Use the following buttons to move destinations from one list to the other.

Button	Purpose
	Move specific (highlighted) destinations from <b>Possible Destination</b> to <b>Selected Destinations</b> .

Button	Purpose
	Move all destinations from <b>Possible Destination</b> to <b>Selected Destinations</b> .
	Move specific (highlighted) destinations from <b>Selected Destinations</b> to <b>Possible Destination</b> .
	Move all destinations from <b>Selected Destinations</b> to <b>Possible Destination</b> .

4. Configure the reset after download option.

Some devices need to be reset after a download in order for the downloaded configuration to take effect. Using the Download dialog box, you can instruct the device to be reset when the download is completed.

- To automatically reset the device after the download, select the Reset After Download check box.
- If you do not want the device to reset after the download, clear the Reset After Download check box.

5. Click **Download**.



**Note:**

If Default Action When Downloading is configured to Do Not Request Confirmation, the Download Confirmation dialog box does not open.

- If the modules or devices in the Selected Destinations list exactly match the module or device from which the configuration file was uploaded, a confirmation dialog box opens with information about the configuration file and the selected devices.
- If the modules or devices in the Selected Destinations list do not exactly match the module or device from which the configuration file was uploaded, the system displays a warning message at the bottom of the dialog box. For example, this can occur when the device types are the same, but the modules or devices have different expansion modules or when a configuration file has been edited manually.

6. After reading the following caution statement, click **Proceed** to download the configuration file to the selected devices.



**Caution:**

Click **Cancel** now if you do not wish to proceed with the download. Once the download process begins, it cannot be stopped.

If an inappropriate configuration file is downloaded to a module or device, you may lose contact with the device's agent.

If the configuration was manually edited, the Download Warning dialog box opens. The Download Warning dialog box will also allow you to cancel the download.

The selected configuration file is downloaded to the modules or devices in the Selected Destination list.

---

## Downloading Edited Files

If a configuration file was opened from the Download dialog box, you can return to the Download dialog box directly from the Configuration Editor.

To download the edited configuration file to a device:

---

Select **Actions** > **Download**.

For more information on downloading, refer to [Downloading](#) on page 20.

---

---

## Editing Configuration Files

Configuration Backup Restore provides the ability to edit configuration files manually. The Configuration Editor is a simple text editor that opens with the selected configuration file. Each line of a configuration file corresponds to a single CLI (command line interface) command. For information on CLI commands, refer to the device's User's Guide.

 **Note:**

Not all configuration files are editable. Configuration files for Avaya Aura™ Communication Manager Branch are encrypted and cannot be edited.

You can also add comments to a configuration file. Any line starting with the characters '!#' is taken to be a comment and is ignored by the device.

Configuration files contain important information about the configuration of a device. If a configuration file contains inappropriate instructions for a device, it may impair the functioning of the device. Therefore, it is advisable to use the Configuration Editor only when making minor changes to configuration files.

 **Caution:**

Configuration Backup Restore cannot verify the reliability of edited configuration files. Therefore, a warning dialog box appears every time you attempt to download a configuration that was edited manually. If you download a configuration file that has errors or is not appropriate for the device to which you download it, you may lose contact with the device's agent.

---

## Saving Configuration Files

- 
1. Select **File** > **Save**.
  2. Enter a description for the configuration file.
  3. Click **OK**.  
The configuration file is saved with a version number appended to the filename. This prevents older versions of the file from being removed from the library. The system displays a new file in the Library Table.
- 

---

## Closing the Configuration Editor

---

To close the Configuration Editor, select **File** > **Close**.

---

---

## Searching the Device Table or Library Table

You can search the Device Table to find a device or the Library Table to find a configuration file. When searching for a device, you can search using the device's Name or IP address. When searching for a configuration file, you can search using the Name or IP address of the device from which the file was uploaded.

To search the Device or Library Table:

- 
1. Click the **View** tab to open the table you wish to search.
  2. Select **Edit** > **Find**.
  3. Do one of the following:
    - Click **Find by Device IP**
    - Click **Find by Device Best Name**
  4. Click **Find**.

The device or file is highlighted in the table.

---

---

## Comparing Configuration Files

This section explains how to compare configuration files using Configuration Backup Restore. There are two ways you can compare configuration files:

1. between similar devices listed in the Device Table
2. between a current configuration file and a saved configuration

 **Note:**

Files for devices used by Avaya Aura™™ Communication Manager Branch cannot be compared as they are encrypted. The Toolbar Compare button and the Tools > Compare menu options are disabled for these devices.

- 
1. From the Device Table select the device that has the configuration file.

 **Note:**

You can also select both devices to compare from the Device Table, where the device which appears higher in the Device Table is considered the first device selected. You can re-sort the Device Table according to the device order needed. When choosing files by selecting both devices from the device table, perform step [2](#) followed by step [8](#).

2. Select **Tools > Compare**.  
The **Compare Configurations** dialog box opens.
3. From the Device Table select the device that has the configuration file.
4. Select the type of file to be compared for the selected device on the **Compare on device** drop-down list box in the **Compare Configurations** dialog box.  
The possible files for comparison changes according to the device type selected.
5. From the **With** drop-down list, select **to compare this file with a different device's configuration file**, or **from a saved version of the configuration file**.
6. Select the file type with which to compare the selected file from the **Configuration on device** drop-down list box.  
The possible files for comparison changes according to the device type selected.
7. Select the device with the file for comparison from the table on the **Compare Configurations** dialog box.
8. Click **Compare**.

Configuration Backup Restore compares the selected configuration files and opens the result in the software selected for file comparison. For more information on selecting the file comparison software, refer to [General tab](#) on page 15.

**Note:**

You must define the path to the program used to compare the files in the [General tab](#) on page 15. If the "Diff" program is not defined, you will get an error message.

## The user interface

### Related topics:

[Toolbar](#) on page 25

[View Tabs](#) on page 26

[The Log](#) on page 26

[The Table Area](#) on page 27

[Dialog Area](#) on page 29

[Status Bar](#) on page 29

[Status Line](#) on page 30

## Toolbar

The Toolbar provides shortcuts to the main Configuration Backup Restore functions.

Icon	Menu item	Description
	<b>File &gt; Report</b>	Opens the Report dialog box.
	<b>File &gt; Options</b>	Opens the Options dialog box.
	<b>File &gt; Compare</b>	Opens the Compare Configurations dialog box.
	<b>Edit &gt; Editor</b>	Opens the configuration file editor.
	<b>Edit &gt; Delete</b>	Deletes the selected row or rows from the table.
	<b>Edit &gt; Find</b>	Opens the Find dialog box.
	<b>View &gt; Log</b>	Opens the log.
	<b>Action &gt; Detect Devices</b>	Rediscovered the information in the Device Table.

Icon	Menu item	Description
	<b>Action &gt; Upload</b>	Opens the Upload Configuration dialog box.
	<b>Action &gt; Download</b>	Opens the Download Configuration dialog box.
	<b>Action &gt; Jobs</b>	Opens the Jobs dialog box.
	<b>Action &gt; Backup</b>	Starts the Backup Wizard.
	<b>Action &gt; Restore</b>	Starts the Restore Wizard.
	<b>Tools &gt; Device Manager</b>	Launches the device manager for the selected device
	<b>Help &gt; Help On</b>	Opens the help topic for the currently displayed screen or dialog box (context sensitive help).

---

## View Tabs

The **View** Tabs are used to switch between the two views in the Table Area. Click the **View** Tab for the table you wish to view.

**Backup Tab** Displays the Device Table. These are the individual devices that can be backed up.

**Restore Tab** Displays the Library View. This is the library of files that can be restored to the devices. (Files can be restored to devices of the same type, not to just the original device from which they were backed up.)

---

## The Log

Configuration Backup Restore keeps a log of all activity. New log information is appended to the end of the existing log. When you close Configuration Backup Restore, the log is erased. To view the log, select **View > Log**.

Field	Description
<b>Severity</b>	<p>The severity of the event, as follows:</p> <ul style="list-style-type: none"> <li> <b>Normal</b> A successful action, such as a completed upload or download.</li> </ul>

Field	Description
	<p> <b>Warning</b> An unsuccessful action, such as failure to discover a device.</p> <p> <b>Major</b> An event relating to a failure to upload or download to a device.</p> <p> <b>&lt;blank&gt;</b> An information message.</p>
<b>Date</b>	The date and time at which the event occurred.
<b>Source</b>	<p>The source of the event. Possible sources include:</p> <p><b>IP Address(Device)</b> The source is the device with the specified IP address.</p> <p><b>IP Address(Module Number)</b> The source is the specified module number in the device.</p> <p><b>Library</b> The source is the Configuration Backup Restore library.</p>
<b>Message</b>	A description of the event.

---

## The Table Area

The Table Area is where devices and configuration files are displayed. Specifically, you can display the device table and the library view.

To select a contiguous group of rows:

1. Click the row at the top or bottom of the group.
2. Press **Shift**, and click the row at the other extreme of the group. The two end rows and all of the rows between them are selected.

To select multiple rows that are not contiguous:

1. Click one of the rows.
2. Press **Ctrl**, and click additional rows you want to select.

To sort a table by one of its columns, click the column header. To reverse the order of the sort, click the column header again.

### The Device Table (backup tab)

The Device Table lists devices in the network and displays information about them. The Device Table is used for uploading configurations from devices and saving the configurations to files in the library.

The Device Table displays the following information about each device:

<b>Name</b>	Name of the device (as known to Configuration Backup Restore).
<b>IP</b>	IP address of the device.
<b>Module</b>	The slot in which the module is located in the device. For stackable devices, this is the module's position in the stack.
<b>Type</b>	The type of device.
<b>Last Operation</b>	The last configuration operation performed on the device. Options are:
<b>Upload</b>	The device's configuration was uploaded manually.
<b>Backup</b>	The device's configuration was uploaded using an immediate backup.
<b>Backup:&lt;Job Name&gt;</b>	The device's configuration was automatically uploaded by the <Job Name> periodic backup job.
<b>Backup:&lt;Job Name&gt;</b>	The device's configuration was automatically uploaded by the <Job Name> periodic backup job.
<b>Download</b>	A configuration file was downloaded manually to the device.
<b>Restore</b>	A configuration file was downloaded using an immediate restore.
<b>Restore:&lt;Job Name&gt;</b>	A configuration file was automatically downloaded by the <Job Name> restore job.
<b>Time</b>	The date and time at which the last operation occurred.
<b>By</b>	The owner of the last operation.

For further information on using the Device Table to upload configurations, refer to [Saving Device Configurations](#).

### The Library View (restore tab)

The Library Table lists the configuration files in the library. The Library Table is used for downloading configurations to appropriate devices.

The Library Table displays the following information about each file in the library:

<b>Name/Desc</b>	Name of the device (from the platform) from which the file was uploaded.
<b>IP</b>	IP address of the device from which the file was uploaded.
<b>Module</b>	The slot in which the module is located in the device from which the file was uploaded. For stackable devices, this is the module's position in the stack.

<b>Device Type</b>	The type of device.
<b>Software</b>	The software version running on the device at the time of the file creation.
<b>File Type</b>	The file type. Indicates whether the file is a Running Configuration file or a Startup Configuration file.
<b>Job Name</b>	The name of the job that created the configuration file.
<b>Time</b>	The date and time at which the configuration file was created or last modified.
<b>Created By</b>	The source of the configuration file. Options are:
<b>Upload</b>	The configuration file was created by an immediate backup job.
<b>Edit</b>	The configuration file was created or modified using the File Editor.
<b>Unknown</b>	The source of the configuration file is unknown.
<b>User</b>	The name of the person who created or last modified the configuration file.
<b>File</b>	The command line interface (CLI) name of the configuration file.

For more information on the Library View, refer to [The library view](#) on page 12.

---

## Dialog Area

The area to the right of the Table Area is where all dialog boxes appear. This area can be resized by dragging the vertical splitter bar with the mouse. When a dialog box opens, it replaces the current dialog box in the Dialog Area. When no dialog box is open, the Dialog Area disappears, and the **Table Area** window expands to take its place.

---

## Status Bar

The Status Bar displays the following information:

- The **Type** of device from which the original configuration file was uploaded.
- The **IP** address of the device from which the original configuration file was uploaded.
- The **Module** number of the device from which the original configuration file was uploaded.

- The **Date** the original configuration file was uploaded.
- An indicator showing whether the file was edited but not yet saved. If the configuration file in the Configuration Editor was edited but not yet saved, the system displays `modified` in the Configuration editor Status Bar.

## Status Line

The status line is at the bottom of the window where the communication status between Configuration Backup Restore and network devices and other information is displayed.

Areas of the Status Line show the following:

- Left** A message specifying whether or not the table is being filtered.
- Center** - The progress of uploads and downloads.
- When a configuration file is selected, the file type, the IP address and module number of the device from which the file was uploaded, and the date the file was created or last modified.
- Right** A status message and graphic displaying the communication status between Network and the devices on the network.

Here are the possible communication status messages:

Icon	Message	Description
	<current or final status of last operation>	Configuration Backup Restore is ready and no upload/download activity is currently in progress. (May be discovering devices.)
 (animated)	<Uploading or Downloading>	Configuration Backup Restore is uploading or downloading configuration files to or from devices.

---

## Frequently Asked Questions (FAQs)

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### Why am I not able to see my device in the Device Table view?

Your device has not been discovered in the Network Management Console. Configuration Backup Restore shows the device only if it has been discovered in the Network Management Console.

#### Solution

- 
1. Check if the subnet has been defined in the Network Management Console.
  2. If the subnet has not been defined, define a subnet in the Network Management Console.
  3. Run a discovery.  
You can see the device in the Device Table view if it is discovered in the Network Management Console.
- 

---

### How do I configure SNMP settings for the device?

Configuration Backup Restore can operate on a device using both SNMPv1 and SNMPv3 protocols, but it requires access to certain views under Avaya MIB.

For more information on configuring SNMP, see [How do I configure SNMP settings for the device?](#)

- If you use SNMPv1, define the correct write-community along with the read-community.
- If you use SNMPv3, do not use the initial – default user-configured in the Network Management Console.

 **Note:**

Read-community or initial can discover the device correctly, but fails the backup/restore operations. You can use the Avaya Secure Access Administration that is a part of the Network Management suite for creating a user in the Network Management Console.

---

## Why did my backup/restore operation fail?

Backup or restore operations may fail for various reasons. To know the reason for the failure, see the error message in the Log window. (Click **View** from the menu bar and select **Log**).

---

## How do I fix the SSH host key verification failure issue?

### Solution

---

Clear the host key cache to fix the SSH host key verification failure issue.

The SSH host key verification error occurs because of the caching issue since the host keys are cached on the gateways.

---

---

## How do I fix the SCP permission denied error?

### Solution

- 
1. Check the SCP user credentials in the **File Transfer Protocol** tab of the Options dialog box.
  2. Verify that the credentials are defined for the default user at the time of installation. You can also configure the new user manually.
- 

## Creating a new user manually

A new user can be created or the existing user can be modified using the SCP User Management tool

- 
1. Open the SCP User Management tool from Windows **Start > Avaya > Tools > SCP User Configuration**
  2. Create a new user or modify an existing user.
- 

---

## Can I create a new SCP user?

Yes. Use the following task

### Creating a new user manually

A new user can be created or the existing user can be modified using the SCP User Management tool

- 
1. Open the SCP User Management tool from Windows **Start > Avaya > Tools > SCP User Configuration**
  2. Create a new user or modify an existing user.
- 

---

## Why does my backup/restore fail while using the TFTP server?

Generally, this error occurs if the TFTP server on the gateway is disabled. Check the status and enable it on the gateway using the command line interface and retry.

---

## Can I use FTP server for Configuration Backup Restore operations?

Yes. For information on this section, refer to [Configuring the FTP server](#) on page 13.

---

## Error messages

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## Upload/Download Failed: General error occurred.

### Used protocol

FTP

### Reason

The FTP user used for upload/download operation has only read permission on the default home directory.

### Solution

Add write permission to the FTP user account. This gives full access to the FTP user to perform successful operations.

---

## Upload/Download Failed to set upload/download operation parameter

### Used protocol

FTP

### Solution

Discover the device in the Network Management Console using the SNMPv3 user and then perform the upload/download operation.

---

## Upload/Download Failed. SCP - Permission denied.

### Used protocol

SCP

## Solution

- 
1. Check the SCP user credentials in the **File Transfer Protocol** tab of the Options dialog box.
  2. Verify that the credentials are defined for the default user at the time of installation. You can also configure the new user manually.
-

## Creating a new user manually

A new user can be created or the existing user can be modified using the SCP User Management tool

- 
1. Open the SCP User Management tool from Windows **Start > Avaya > Tools > SCP User Configuration**
  2. Create a new user or modify an existing user.
- 

---

## Upload/Download Failed. SSH – host key verification failed.

**Used protocol**

SCP

## Solution

---

Clear the host key cache to fix the SSH host key verification failure issue.  
The SSH host key verification error occurs because of the caching issue since the host keys are cached on the gateways.

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