

Avaya Network Configuration Manager User Guide

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Preface

Welcome to Avaya Network Configuration Manager. Avaya Network Configuration Manager is an application that enables you to backup and restore device configurations and configure groups of devices.

This chapter provides an introduction to the structure and assumptions of this manual. It includes the following sections:

- The Purpose of This Manual A description of the goals of this manual.
- Who Should Use This Manual The intended audience of this manual.
- Organization of this Manual A brief description of the subjects contained in the various chapters of this manual.

The Purpose of This Manual

The Avaya Network Configuration Manager User Guide contains information needed to use Avaya Network Configuration Manager efficiently and effectively.

Who Should Use This Manual

This manual is intended for network managers familiar with network management and its fundamental concepts.

Organization of this Manual

This manual is structured to reflect the following conceptual divisions:

- Preface Describes the manual's purpose, intended audience, and organization.
- **Introduction** Provides an introduction to Avaya Network Configuration Manager, including instructions for starting and closing the application, information on the user interface, and instructions on changing Avaya Network Configuration Manager options.
- **Saving Device Configurations** Provides a description of the Device Table and instructions on how to manually save a device's configuration to a file and use the Backup Wizard to create and manage backup jobs.
- **Downloading Configuration Files** Provides a description of the Library View, and instructions on how to edit a configuration file and download a file to a device.
- Menus Provides the full structure of the menus in Avaya Network Configuration Manager.

1 Introduction

This chapter provides an introduction to the Avaya Network Configuration Manager. It includes the following sections:

- Avaya Network Configuration Manager Overview An overview of Avaya Network Configuration Manager.
- Starting and Closing Avaya Network Configuration
 Manager Instructions on how to access Avaya Network
 Configuration Manager from your management platform.
- The User Interface An explanation of the Avaya Network Configuration Manager user interface.
- <u>Using Tooltips</u> An explanation of the Avaya Network Configuration Manager tooltip feature.
- The Log A description of the Avaya Network Configuration Manager log.
- <u>Setting Avaya Network Configuration Manager Options</u> -Instructions on setting Avaya Network Configuration Manager options.
- <u>Generating Reports</u> Instructions on generating Avaya Network Configuration Manager reports.
- <u>Searching the Table</u> Instructions on searching Avaya Network Configuration Manager tables.
- <u>Comparing Configuration Files</u> Instructions on comparing configuration files in Avaya Network Configuration Manager.
- <u>Using Avaya Network Configuration Manager Help</u> An explanation of the options for accessing on-line help in Avaya Network Configuration Manager.

Avaya Network Configuration Manager Overview

Avaya Network Configuration Manager is an application that allows you to backup and restore device configurations and configure multiple devices. Avaya Network Configuration Manager uses Simple Network Management Protocol (SNMP) and Trivial File Transfer Protocol (TFTP) or Secure Copy Protocol (SCP) to exchange information with the devices in the network.

When using SCP, an SCP server must be installed on the management station. After defining users on the SCP server, you can configure Avaya Network Configuration Manager as an SCP user.

When you make changes to a device's configuration, you may find that the overall effect of the configuration change may have a negative effect on the performance of the device in your network. Avaya Network Configuration Manager provides a method for backing up device configurations before you make changes. In addition, you can schedule automatic, periodic backups.

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 P580 Device, it can only be downloaded to an Avaya P580 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, '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.

Starting and Closing Avaya Network Configuration Manager

To start Avaya Network Configuration Manager from HP OpenView NNM (UNIX or NT-OV), select **Tools > Avaya > Avaya Network Configuration Manager**. Avaya Network Configuration Manager opens.

To start Avaya Network Configuration Manager from Avaya Network Console, select **Tools > Avaya Network Configuration Manager**. Avaya Network Configuration Manager opens.

To close Avaya Network Configuration Manager, select **File > Exit**. Avaya Network Configuration Manager closes.

The User Interface

The user interface consists of the following elements:

- **Menu Bar** Menus for accessing Avaya Network Configuration Manager's functions. For a list of menu items, refer to <u>"Avaya Network Configuration Manager Menus"</u> on page 48.
- <u>Toolbar</u> Toolbar buttons for accessing Avaya Network Configuration Manager's main functions.
- <u>View Tabs</u> Tabs for switching between Download View and Library View.
- The Table Area An area where the Device Table and Library Table open.
- <u>Dialog Area</u> A window where all dialog boxes are displayed. When no dialog box is open, the Dialog Area disappears, and the Device Table expands to take its place.
- <u>Status Line</u> An area at the bottom of the window where the communication status between Avaya Network Configuration Manager and network devices and other information is displayed.

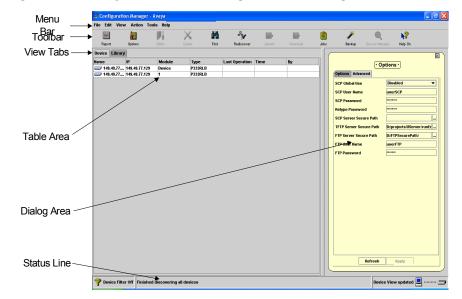


Figure 1-1. Avaya Network Configuration Manager User Interface

Toolbar

The Toolbar provides shortcuts to the main Avaya Network Configuration Manager functions.

The table below describes the buttons on the Toolbar and gives the equivalent menu options.

Table 1-1. Toolbar Buttons

Button	Description	Menu Item
∞≤ Report	Opens the Report dialog box.	File > Report
Options	Opens the Options dialog box.	File > Options
Compare	Opens the Compare Configurations dialog box.	Tools > Compare
Editor	Opens the configuration editor.	Tools > Editor
Delete	Deletes the selected configuration files.	Edit > Delete
Find	Opens the Find dialog box.	Edit > Find
Rediscover	Refreshes device or file information.	Actions > Rediscover
Upload	Opens the Upload dialog box.	Actions > Upload
Download	Opens the Download dialog box.	Actions > Download
Jobs	Opens the Jobs dialog box.	Actions > Jobs
P Backup	Opens the Backup dialog box.	Actions > Backup
Device Manager	Opens the device manager for the selected device.	Tools > Device Manager
№ 8	Opens context-sensitive on-line help.	Help > Help On

View Tabs

The View Tabs are used to switch between the two views in the Table Area. To switch to a different view, click the appropriate View Tab. The selected view appears.

The Table Area

The Table Area is where devices and configuration files are displayed. There are two views available in the Table Area:

- The Device Table Lists devices in the network.
- The Library View Lists configuration files in the library.

To select an item in a table row, click anywhere in the row.

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:

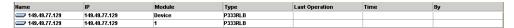
- 1. Click one of the rows.
- 2. Press CTRL, and click additional rows you want to select.

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

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.

Figure 1-2. Device Table

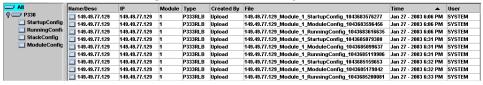


For further information on using the Device Table to upload configurations, refer to Chapter 2, Saving Device Configurations.

The Library View

The Library View includes the Library Tree, which shows the device types in the network, and the Library Table, which lists the configuration files in the library. The Library Table is used for downloading configurations to appropriate devices.

Figure 1-3. The Library View



To expand or contract an element in the Library Tree, click the handle next to the element. The branch of the tree expands or contracts.

For more information on the Library View, refer to <u>"Using the Library View"</u> on page 36.

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 Line

The Status Line shows the following:

- A status message and graphic displaying the communication status between Avaya Network Configuration Manager and the devices on the network.
- The progress of uploads and downloads.
- A message specifying whether or not the Device Table is being filtered.
- 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.

The table below shows the possible statuses with their corresponding graphics, and gives a short explanation for each status.

Table 1-2. Communication Statuses

Status	Graphic	Description
Idle		Avaya Network Configuration Manager is ready and no downloads are currently in progress.
Discovering devices	<u> </u>	Avaya Network Configuration Manager is currently communicating with a device.
Downloading	:	Avaya Network Configuration Manager is uploading or downloading configuration files to or from devices.

Using Tooltips

Avaya Network Configuration Manager 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 on the device's IP Address column. After about one second, a tooltip appears with information about the device.

Figure 1-4. Device 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.

Figure 1-5. Library View Tooltip



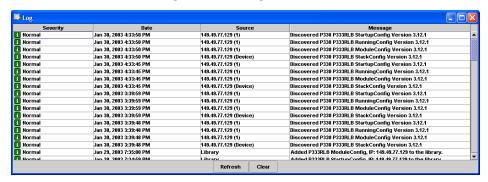
To toggle the status of the tooltips feature, select **View > ToolTip**.

The Log

Avaya Network Configuration Manager keeps a log of all activity. New log information is appended to the end of the existing log. When you close Avaya Network Configuration Manager, the log is erased.

To view the log, select **View > Log**. The Log window opens.

Figure 1-6. Log Window



The following table provides a list of the fields in the log and their descriptions.

Table 1-3. Log Window

Field	Description
Severity	The severity of the event, as follows:
	 Normal - A successful action, such as a completed upload or download.
	• A Warning - An unsuccessful action, such as failure to discover a device.
	 Major - An event relating to a failure to upload or download to a device.
Date	The date and time at which the event occurred.
Source	The source of the event. Possible sources include:
	• IP Address (Device) - The source is the device with the specified IP address.
	 IP Address (Module Number) - The source is the specified module number in the device.
	 Library - The source is the Avaya Network Configuration Manager library.
Message	A description of the event.

To clear all of the entries in the log, click **Clear**. The log is cleared.

To refresh the entries in the log, click **Refresh**. The log is refreshed.

To close the log, click \blacksquare . The Log Window closes.

Setting Avaya Network Configuration Manager Options

Using the Options dialog box, you can configure Avaya Network Configuration Manager 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.

General Tab

To open the Options dialog box to the General tab:

Click Options.

Or

Select **File > Options**. The Options dialog box opens to the General tab.

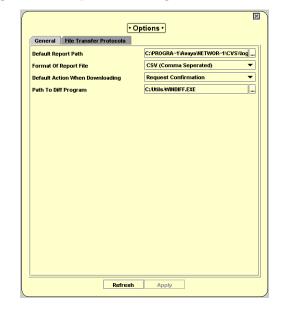


Figure 1-7. Options Dialog Box - General Tab

Using the General tab of the Options dialog box, you can:

- Select a Report Location
- Select a Report Format
- Set the Default Action When Downloading
- Set the Program Used for Comparing Files

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

Select a Report Location

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

To select a directory to which Avaya Network Configuration Manager reports are saved:

- **1.** Click ... in the Default Report Path section of the Options dialog box. A directory browser opens.
- **2.** Browse to the directory in which you want Avaya Network Configuration Manager to save reports.
- **3.** Click **OK**. The directory browser closes.
- **4.** Click **Apply**. Avaya Network Configuration Manager saves reports to the selected directory.

Select a Report Format

Avaya Network Configuration Manager 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.

To select a format for Avaya Network Configuration Manager reports:

- 1. Select the desired report format from the Format of Report File pull-down listbox.
- **2.** Click **Apply**. The report format is configured.

Set the Default Action When Downloading

You can configure the default response of Avaya Network Configuration Manager 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** Avaya Network Configuration Manager will start the download without requesting confirmation.

To configure the default action when downloading:

- **1.** Select the desired default action from the Default Action When Downloading pull-down listbox.
- **2.** Click **Apply**. The default action when downloading is configured.

Set the Program Used for Comparing Files

Avaya Network Configuration Manager 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.

To select a directory with the location of the software for Avaya Network Configuration Manager to use for comparing files:

- **1.** Click ... in the Path to Diff Program section of the Options dialog box. A directory browser opens.
- **2.** Browse to the directory with the software you want Avaya Network Configuration Manager to use to compare files.
- **3.** Click **OK**. The directory browser closes.
- **4.** Click **Apply**. Avaya Network Configuration Manager sets the chosen software for comparing configuration files.

File Transfer Protocols Tab

To open the Options dialog box to the File Transfer Protocols tab:

1. Click Options.

Or

Select **File > Options**. The Options dialog box opens to the Options tab.

2. Click **File Transfer Protocols**. The File Transfer Protocols tab of the Options dialog box appears.

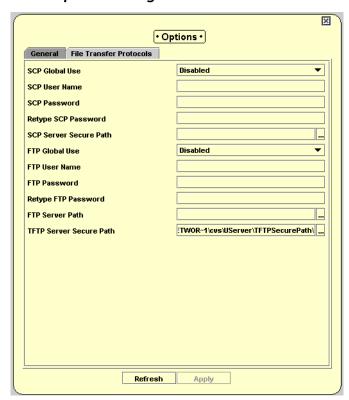


Figure 1-8. Options Dialog Box - File Transfer Protocols Tab

Using the File Transfer Protocols tab of the Options dialog box, you can configure the protocols used for transferring files with Avaya Network Configuration Manager.

The following table provides a list of the fields in the File Transfer Protocols tab of the Options dialog box and their descriptions.

Table 1-4. Options Dialog Box - File Transfer Protocols Tab

Field	Description
SCP Global Use	The state of SCP usage for Avaya Network Configuration Manager. Possible values:
	• 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.
	• Disabled - SCP is not used. FTP is used for all devices if FTP Global Use is enabled, otherwise TFTP is used.
SCP User Name	A user name defined on the SCP server. This is the SCP user that Avaya Network Configuration Manager will use.
SCP Password	The password defined on the SCP server for the configured SCP user.

Table 1-4. Options Dialog Box - File Transfer Protocols Tab

Field	Description
Retype SCP Password	The password defined on the SCP server for the configured SCP user. The password is entered twice to ensure that it is entered correctly.
SCP Server Secure Path	The path to the root of the secure path configured on the SCP server.
FTP Global Use	The state of FTP usage for Avaya Network Configuration Manager. Possible values:
	 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.
	Disabled - FTP is not used. If SCP is disabled, or a device does not support SCP, then TFTP is used.
FTP User Name	A user name defined on the FTP server. This is the FTP user that Avaya Network Configuration Manager will use.
FTP Password	The password defined on the FTP server for the configured FTP user.
Retype FTP Password	The password defined on the FTP server for the configured FTP user. The password is entered twice to ensure that it is entered correctly.
FTP Server Path	The path to the root of the secure path configured on the FTP server.
TFTP Server Secure Path	The path to the root of the secure path configured on the TFTP server.

To apply the changes made in the File Transfer Protocols tab of the Options dialog box, click **Apply**.

Generating Reports

Avaya Network Configuration Manager 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 <u>"General Tab"</u> on page 11.

* Note: Reports are saved on the computer from which the application is run. If you are running Avaya Network Configuration Manager via remote access, reports are saved on the client computer, not the server.

To generate a report:

1. Click Report.

Or

Select **File > Report**. The Report dialog box opens.

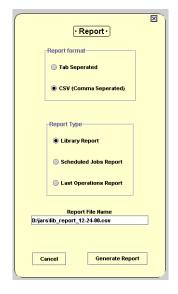


Figure 1-9. Report Dialog Box

- **2.** Select a report format. For more information on report formats, refer to <u>"Select a Report Format" on page 12</u>.
- **3.** Select a report type.
- **4.** Enter a name for the report in the Report File Name field.
- **5.** Click **OK**. The selected report is generated and saved to the specified file.

Searching the 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 a table:

- 1. Click the View Tab to open the table in which you want to search.
- 2. Click Find.

Or

Select **Edit > Find**. The Find dialog box opens.

Figure 1-10. Find Dialog Box



- **3.** Do one of the following:
 - To find a device or configuration file by IP address:
 - **a.** Click the Find by Device IP option button.
 - **b.** Enter the device's IP address.
 - To find a device or configuration file by name:
 - **a.** Click the Find by Device Best Name option button.
 - **b.** Enter the device's name.
- **4.** Click **Find**. The device or file is highlighted in the table.

Comparing Configuration Files

This section explains how to compare configuration files with Avaya Network Configuration Manager. You can compare configuration files between similar devices listed in the Device Table, or between a current configuration file and a saved configuration.

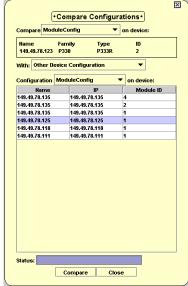
To compare configuration files:

- **1.** Select a device in the Device Table that contains a file you want to compare.
- * **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. Click Compare

Or

Select **Tools > Compare**. The Compare Configurations dialog box opens.

Figure 1-11. Compare Configurations Dialog Box



3. Select a device in the Device Table that contains a file you want to compare.

- **4.** Select the type of file to be compared for the selected device on the **Compare on this device** drop-down listbox in the Compare Configurations dialog box. The possible files for comparison changes according to the device type selected.
- **5.** From the **With** drop-down listbox 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 listbox.
- **7.** Select the device with the file for comparison from the table on the Compare Configurations dialog box.
- **8.** Click **Compare**. Avaya Network Configuration Manager 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 <u>"Set the Program Used for Comparing Files" on page 13.</u>

Using Avaya Network Configuration Manager Help

This section explains how to use the on-line help in the Avaya Network Configuration Manager. The on-line help can be opened to the contents page or directly to a topic of interest.

Opening the Help to the Contents Page

To open the help to the contents page, select **Help > Contents**. The on-line help opens to the contents page.

Opening the Help to a Topic of Interest

To open the help directly to a topic of interest:

1. Click Help.

Or

Select **Help > Help On**. The cursor changes to the shape of an arrow with a question mark.

2. Click on a point of interest in the Avaya Network Configuration Manager. The help opens to a topic explaining the feature that was clicked.

2 Saving Device Configurations

This chapter explains how to save device configurations. Avaya Network Configuration Manager 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.

This chapter includes the following sections:

- <u>Using the Device Table</u> Describes the Device Table and its fields, and explains how to use the Device Table.
- **Saving a Device Configuration** Instructions on how to manually save a device's configuration to a file.
- <u>Creating a Backup Job</u> Instructions on using the Backup Wizard, including an explanation of each of the wizard's screens.
- Managing Jobs Instructions on how manage jobs created by the Backup Wizard.

Using the Device Table

This section describes the information in the Device Table and the Device Table's functions. It includes the following topics:

- <u>Information Displayed in the Device Table</u> Explains the information displayed in the various columns of the Device Table.
- **Filtering the Device Table** Explains how to filter out devices in the Device Table.

Information Displayed in the Device Table

The Device Table displays the following information about each device:

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

To refresh the information in the Device Table, select **View > Refresh**. The Device Table is refreshed with the latest information from the management application.

Filtering the Device Table

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 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**. The Filter dialog box opens.

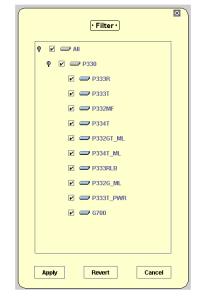


Figure 2-1. Filter Dialog Box

- **2.** Check the checkboxes of the device and modules types you want to see in the Device Table. Clear the checkboxes of the device and module types you do not want to appear in the Device Table. To select all device and module types, check **All**.
- **3.** Click **Apply**. The filter is activated and the dialog box closes.

Saving a Device Configuration

To save a device's configuration to a file in the library:

- 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. Click Upload.

Or

Select **Actions > Upload**. The Upload dialog box opens displaying one row for each configuration type found in the selected device.

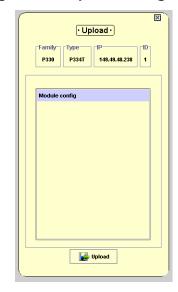


Figure 2-2. Upload Dialog Box

- **3.** Select the configuration types you want to upload.
- **4.** Click **Upload**. A progress bar appears 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.

Creating a Backup Job

The Backup Wizard provides a simple method of backing up the configurations of all or some of the devices in your network. In addition, using the Backup Wizard, you can schedule periodic automated backups. This can help you maintain an archive of your devices' configurations over time. The Backup Wizard also enables you to edit 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.

Activating the Backup Wizard

To create a new backup job:

Click Backup.

Or

Select **Actions** > **Backup**.

Or

Click **New** in the Jobs dialog box. The Backup Wizard opens with the **Backup Wizard - Welcome Screen** screen.

To edit an existing backup job:

- **1.** Select a backup job in the Jobs dialog box.
- **2.** Click **Edit**. The Backup Wizard opens with the **Backup Wizard Device Selection Screen** screen. The parameters of the selected backup job appear in the Backup Wizard screens.

Backup Wizard Screens

This section provides detailed information on each of the Backup Wizard's screens. To accept the default options for any screen, click **Next**. To return to an earlier screen, click **Back**. To exit the Backup Wizard without making any changes, click **Cancel**.

The following sections describe each of the Backup Wizard screens.

Backup Wizard -Welcome Screen

Welcome to the Backup Wizard. The Backup Wizard provides a simple method for backing up the configurations of devices in your network.

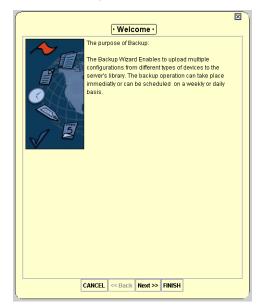
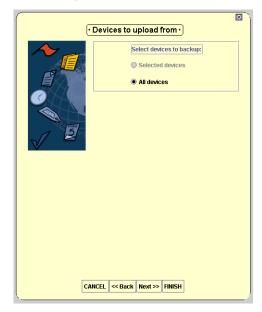


Figure 2-3. Backup Wizard - Welcome Screen

To continue, click **Next**. The Backup Wizard continues with the **Backup Wizard - Device Selection Screen** screen.

Backup Wizard -Device Selection Screen The Device Selection screen of the Backup Wizard, enables you to determine which device configurations to backup.

Figure 2-4. Backup Wizard - Device Selection Screen



To determine the devices whose configurations to backup, select one of the option buttons. The options are:

- **Selected Devices** Only the configuration of the devices selected in the Device Table are backed up.
- **All Devices** The configuration of all devices shown in the Device Table are backed up.
- * **Note:** When All Devices is selected, only the configurations of devices currently displayed in the Device Table at the time of the backup job are backed up.

When you have selected a method for device selection, click **Next**. The Backup Wizard continues with the **Backup Wizard - File Type Screen** screen.

Backup Wizard -File Type Screen

The File Type screen of the Backup Wizard enables you to select the configuration types to backup. The File Type screen displays the configuration types for each device that will be backed up.

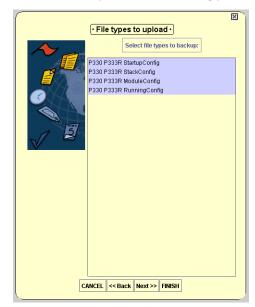


Figure 2-5. Backup Wizard - File Type Screen

Select the configuration types you want to back up. To select or deselect a configuration type, click on the row displaying the configuration type.

When you have selected the configuration types to backup, click **Next**. The Backup Wizard continues with the **Backup Wizard - Job Type Screen** screen.

Backup Wizard - Job Type Screen

The Job Type screen of the Backup Wizard enables you to determine whether the current backup will be performed once or periodically.

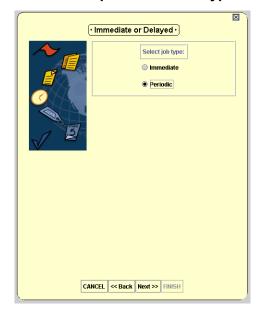


Figure 2-6. Backup Wizard - Job Type Screen

To determine the job type, select one of the option buttons. The options are:

- **Immediate** The current backup is performed once, and the backup job's options are not saved.
- **Periodic** The current backup will be performed at user defined periods, and the backup job's options are saved.

When you have selected a job type, click **Next**. If you selected Immediate, the Backup Wizard continues with the **Backup Wizard - Summary Screen** screen. If you selected Periodic, the Backup Wizard continues with the **Backup Wizard - Job Name Screen** screen.

Backup Wizard -Job Name Screen

The Job Name screen of the Backup Wizard enables you to assign a name to the current backup job. After a backup, the job name appears in the Last Operation field of the Device Table.

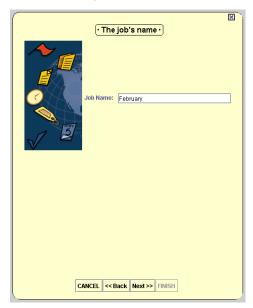


Figure 2-7. Backup Wizard - Job Name Screen

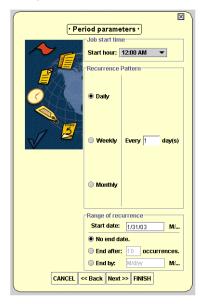
Enter a name for the backup job in the Job Name field.

When you have entered a name for the backup job, click **Next**. The Backup Wizard continues with the **Backup Wizard - Period Parameters Screen** screen.

Backup Wizard -Period Parameters Screen

The Period Parameters screen of the Backup Wizard enables you to configure the frequency and time of periodic backups.

Figure 2-8. Backup Wizard - Period Parameters Screen



To configure the frequency and time of backups:

- 1. Select an hour from the Start Hour pull-down listbox to configure the start time for the backup job.
- **2.** Select an option button in the Recurrence Pattern section of the dialog box to configure the basis of the recurrence pattern. Possible options are:
 - **Daily** The backup job will be performed every *x* days.
 - **Weekly** The backup job will be performed every *x* weeks.
 - **Monthly** The backup job will be performed every *x* months.
- **3.** Finish configuring the recurrence pattern by doing one of the following:
 - If you selected the Daily option button, enter a number in the Every x Days field.

- If you selected the Weekly option button.
 - **a.** Enter a number in the Every *x* Week(s) field.
 - **b.** Check the checkboxes next to the days of the week on which you want the backup job to run.
- If you selected the Monthly option button.
 - **a.** Enter a number in the Day *x* field. This is the day of the month on which the backup job will run. If the day does not exist in a given month, (e.g. the 30th day of February), the last day of the month will be substituted.
 - **b.** Enter a number in the Every *y* Month(s) field.
- **4.** Enter a starting date in the Start Date field.
- **5.** Select an end of the recurrence range for the backup job. Possible range ends are:
 - **No end date** The backup job runs until it is deleted.
 - **End after** *x* **occurrences** Enter a number. The backup job runs *x* times, where *x* is the number entered.
 - End by Enter a date. The backup job runs until the date entered.

When you finish configuring the period parameters for the backup job, click **Next**. The Backup Wizard continues with the **Backup Wizard - Summary Screen** screen.

Backup Wizard -Summary Screen

The Summary screen of the Backup Wizard displays a summary of the backup job configured using the previous screens.

CANCEL << Back Submit

Figure 2-9. Backup Wizard - Summary Screen

To make any changes to the summary information:

- 1. Click **Back** until you reach the appropriate screen.
- **2.** Change the backup job's parameters.
- **3.** Click **Next** until you reach the Summary screen.

To start the backup job with the configured parameters, click **Submit**.

Managing Jobs

The Scheduled Jobs dialog box enables you to manage backup jobs created with the Backup Wizard. Using the Scheduled Jobs dialog box, you can create, edit, and delete backup jobs.

To view scheduled jobs:

Click Jobs.

Or

Select **Actions > Jobs**. The Scheduled Jobs dialog box opens.

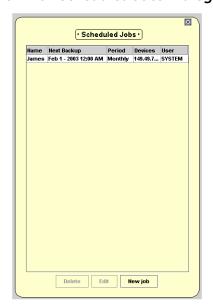


Figure 2-10. Scheduled Jobs Dialog Box

The top of the Scheduled Jobs dialog box contains a list of all periodic backup jobs configured on the network. The following table provides a list of the fields in the Jobs dialog box and their descriptions.

Table 2-1. Scheduled Jobs Dialog Box Fields

Field	Description
Name	The name of the backup job.
Next Backup	The time and date of the next backup.

Table 2-1. Scheduled Jobs Dialog Box Fields (Continued)

Field	Description	
Period	The basis for the recurrence pattern of the job. Possible periods are:	
	• Daily - The backup is performed every <i>x</i> days.	
	• Weekly - The backup is performed every <i>x</i> weeks.	
	• Monthly - The backup is performed every <i>x</i> months.	
Devices	A list of the names of devices backed up by the backup job.	
User	The name of the person who created or last modified the backup job.	

To create a new backup job, click **New job**. The Backup Wizard opens with the **Backup Wizard - Welcome Screen**.

To edit a backup job:

- **1.** Select a backup job from the list of jobs.
- **2.** Click **Edit**. The Backup Wizard opens with the **Backup Wizard Device Selection Screen**. The parameters of the selected backup job appear in the Backup Wizard screens.

To delete a backup job:

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

3 Downloading Configuration Files

This chapter explains how to download configuration files to the devices in the Device Table. It includes the following sections:

- <u>Using the Library View</u> Describes the Library View including instructions on using the Library Tree and Library Table.
- **Downloading** Provides instruction on how to download a configuration file to a device.
- Editing Configuration Files Instructions on how to edit configuration files using the Configuration Editor.

Using the Library View

This section describes the information in the Library View and explains how to use the Library Tree to filter the configuration files displayed in the Library Table. It includes the following topics:

- <u>The Library Tree</u> Provides a description of the Library Tree.
- **The Library Table** Explains the information displayed in the various columns of the Library Table.
- <u>Filtering the Library Table</u> Provides instructions on how to use the Library Tree to filter the files displayed in the Library Table.

The Library Tree

The Library Tree shows the file types in the Library organized by device type. The Library Tree contains three levels:

- **All** An icon representing the network.
- **Device Types** Icons representing all supported device types that appear in the network.
- **File Types** Checkboxes next to the configuration file types that are found in the specific device.

To expand or contract an element in the Library Tree, click the handle next to the element. The branch of the tree expands or contracts.

The Library Table

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

- **Name/Desc** Name of the device (from the platform) from which the file was uploaded.
- **IP** IP address of the device from which the file was uploaded.
- **Module** 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.
- **Type** The file type. This consists of the appropriate device type and may also include information as to whether the file is a Running Configuration file or a Startup Configuration file.
- **Created By** The source of the configuration file. Options are:
 - Backup The configuration file was created by an immediate backup job.
 - Backup: Job Name The configuration file was automatically uploaded by the Job Name backup job.
 - Edit The configuration file was created or modified using the File Editor.
 - **Unknown** The source of the configuration file is unknown.
- **File** The command line interface (CLI) name of the configuration file
- **Time** The date and time at which the configuration file was created or last modified.
- **User** The name of the person who created or last modified the configuration file.

Filtering the Library Table

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. Files can be filtered by file type.

To hide displayed files, uncheck the checkbox next to the file type you do not want displayed in the Library Table. All files of the unchecked file type are removed from the Library Table.

To view files that are currently hidden, check the checkbox next to the file type you want displayed in the Library Table. All files whose file types are checked in the Library Tree are displayed in the Library Table.

Downloading

* **Note:** When you download a file, the protocol used appears in the log. For information about configuring the download protocol, refer to <u>"File Transfer Protocols Tab" on page 13.</u>

To download a configuration file to one or more devices:

- **1.** In the Library Table, select the configuration file you want to download to one or more devices.
- 2. Click Download.

Or

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

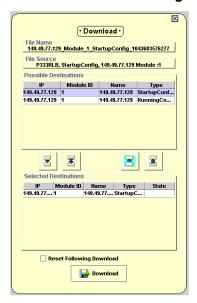


Figure 3-1. Download Dialog Box

The Download dialog box displays the file name and source and possible destinations for the file.

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 is only downloaded to modules and devices in the Selected Destinations list.

- To add modules or devices to the Selected Destinations list:
 - **a.** Select modules or devices in the Possible Destinations list.
 - **b.** Click . The selected modules or devices are added to the Selected Destinations list.
- To add all of the modules or devices in the Possible Destinations list to the Selected Destinations list, click . All of the modules or devices in the Possible Destinations list are added to the Selected Destinations list.
- To remove modules or devices from the Selected Destinations list:
 - **a.** Select modules or devices in the Selected Destinations list.
 - **b.** Click . The selected modules or devices are removed from the Selected Destinations list.
- To remove all of the modules or devices from the Selected Destinations list, click . All of the modules or devices in the Possible Destinations list are removed from the Selected Destinations list.
- **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, check the Reset After Download checkbox.
- If you do not want the device to reset after the download, clear the Reset After Download checkbox.
- **5.** Click **Download**. The Download Confirmation dialog box opens.
- * Note: If Default Action When Downloading is configured to **Do Not Request Confirmation**, the Download Confirmation dialog box does not open.



Figure 3-2. Download Confirmation Dialog Box

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, a warning message appears 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.

- To download the configuration file to the selected device, click Proceed. The selected configuration file is downloaded to the modules or devices in the Selected Destination list.
 - * **Note:** 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.



- To edit the configuration file with the Configuration Editor, click Edit file. The Configuration Editor opens. After editing the file, you can initiate the download process from the Configuration Editor. For more information on the Configuration Editor, refer to <u>"Editing Configuration Files" on page 43</u>.
- To cancel the download, click Cancel. The download is cancelled.
- **6.** If the configuration was manually edited, the Download Warning dialog box opens.

Figure 3-3. Download Warning Dialog Box



7. To download the file, click **Yes**. The file is downloaded to the selected devices. To cancel the download, click **No**.

Editing Configuration Files

Avaya Network Configuration Manager 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.

In addition, you can 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.



Avaya Network Configuration Manager 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.

The Configuration Editor User Interface

To edit a configuration file:

- 1. Select an editable configuration file in the Library View.
- 2. Click Editor.

Or

Select **Tools > Editor**. The Configuration Editor opens with the selected configuration file.

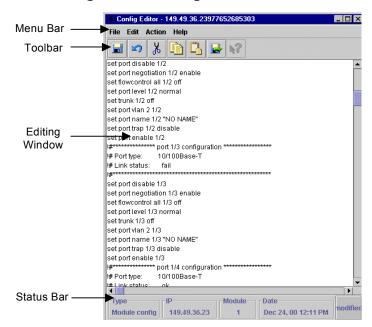


Figure 3-4. Configuration Editor

The Configuration Editor consists of the following components:

- Menu Bar Menus for accessing all Configuration Editor functions. For more information on the Configuration Editor menus, refer to <u>"Configuration Editor Menus" on page 50</u>.
- Configuration Editor Toolbar 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.
- <u>Status Bar</u> 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.

The table below describes the buttons on the Configuration Editor toolbar and gives the equivalent menu options.

Table 3-1. Configuration Editor Toolbar Buttons

Button	Description	Menu Item
	Saves the edited configuration file.	File > Save
n	Undoes the last action.	Edit > Undo
Ж	Cuts the selected text to the clipboard.	Edit > Cut
	Copies the selected text to the clipboard.	Edit > Copy
	Pastes the selected text from the clipboard.	Edit > Paste
	Opens the Download dialog box with the edited configuration.	Action > Download
№ ?	Opens context-sensitive on-line help.	Help > Help On

Editing Window

The Editing Window is the area where you edit the configuration file. You can edit a configuration file in the same manner you edit any text file. Text is entered using the keyboard and can be cut, copied, or pasted from within the Configuration Editor and from external text editing applications.

To cut text to the clipboard:

- 1. Select the text you want to cut to the clipboard.
- 2. Click .

Or

Select **Edit > Cut**. The selected text is cut to the clipboard.

To copy text to the clipboard:

- 1. Select the text you want to copy to the clipboard.
- 2. Click

Or

Select **Edit > Copy**. The selected text is copied to the clipboard.

To paste text from the clipboard:

Click .

Or

Select **Edit > Paste**. The selected text is pasted from the clipboard.

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, **modified** appears in the Configuration editor Status Bar.

Saving Configuration Files

To save a new or edited configuration file:

1. Click

Or

Select **File > Save**. The File Description dialog box opens.

Figure 3-5. File Description Dialog Box



- **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 new file appears in the Library Table.

Downloading Edited Files

If a configuration file was opened from the Download dialog box (refer to <u>"Downloading" on page 39</u>), you can return to the Download dialog box directly from the Configuration Editor. To download the edited configuration file to a device:

Click .

Or

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

For more information on downloading, refer to <u>"Downloading" on page 39</u>.

Closing the Configuration Editor

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

A Menus

This appendix gives the full structure of the menus in Avaya Network Configuration Manager, including the menus in the Configuration Editor.

Avaya Network Configuration Manager Menus

The following sections provide the structure of the menus in Avaya Network Configuration Manager.

File Menu

Table A-1. File Menu

Item	Description	
Report	Opens the Report dialog box.	
Options	Opens the Options dialog box.	
Exit	Exits Avaya Network Configuration Manager.	

Edit Menu

Table A-2. Edit Menu

Item	Description	
Delete	Deletes the selected row or rows from the table.	
Find	Opens the Find dialog box.	

View Menu

Table A-3. View Menu

Item	Description	
ToolTip	Enables tool tips in the Device Table.	
Log	Opens the log.	

Actions Menu

Table A-4. Actions Menu

Item	Description
Rediscover	Rediscovers the information in the Device Table.
Upload	Opens the Upload Configuration dialog box.
Download	Opens the Download Configuration dialog box.
Jobs	Opens the Jobs dialog box.
Backup	Starts the Backup Wizard.
Filter	Opens the Filter Devices dialog box.

Tools Menu

Table A-5. Tools Menu

Item	Description
Editor	Opens the Configuration Editor with the selected configuration file.
Device Manager	Opens the appropriate device manager for the selected device.
Compare	Opens the Compare Configurations dialog box.

Help Menu

Table A-6. Help Menu

Item	Description
Contents	Opens the help module contents page for information.
Help On	Opens the help module contents for context-sensitive on-line help.
About Avaya Network Configuration Manager	Opens a window containing copyright information about Avaya Network Configuration Manager.

Configuration Editor Menus

The following section provide the full structure of the menus in the Configuration Editor.

File Menu

Table A-7. File Menu

Item	Description
Save	Opens the Save Configuration File dialog box.
Close	Closes the Configuration Editor.

Edit Menu

Table A-8. Edit Menu

Item	Description
Cut	Cuts the selected text to the clipboard.
Сору	Copies the selected text to the clipboard.
Paste	Pastes the text from the clipboard.
Undo	Undoes the most recent action in the Configuration Editor.
Redo	Reverses the last undo action in the Configuration Editor.

Action Menu

Table A-9. Action Menu

Item	Description
Download	Opens the Download Configuration dialog box.

Help Menu

Table A-10. Help Menu

Item	Description
Contents	Opens the help module contents page for information.
Help On	Opens the help module contents for context-sensitive on-line help.
About	Opens a window containing copyright information about the Configuration Editor.

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