

CHAPTER 5

Generating Reports

You can perform all your reporting-related tasks from a single location: the Reports drawer in the Tasks tab on all Cisco ANA perspectives.

These tasks include:

- Scheduling the reports. See [Creating an Inventory Report, page 5-2](#).
- Managing reports. You can export a report, print a report, delete a report, and so on. See [Using the Report Browser, page 5-5](#).
- Performing administrative tasks. You can set the purge policy for the archived reports. See [Reports Preferences, page 13-29](#).

Roles Required to Manage Reports

Table 5-1 lists the roles that are required to manage reports. For more information on roles, see [Creating and Managing Users, Passwords, and Scopes, page 13-34](#).

Table 5-1 Roles Required to Manage Reports

Task	Role Required
Creating an inventory report	Viewer, Network Operator, Configurator, Administrator
Viewing the generated inventory reports	Viewer, Network Operator, Configurator, Administrator
Exporting a report	Viewer, Network Operator, Configurator, Administrator
Saving a report	Viewer, Network Operator, Configurator, Administrator
Printing a report	Viewer, Network Operator, Configurator, Administrator
Deleting a report	Viewer, Network Operator, Configurator, Administrator
Report preferences	Administrator

Related Topics

- [Creating an Inventory Report](#)
- [Using the Report Browser](#)

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Creating an Inventory Report

A report is generated based on the information present in the Cisco ANA database for the network elements being managed by Cisco ANA. You can generate the following types of inventory reports:

- **Inventory Summary Report**—Displays a summary of physical and logical inventory information for selected network elements. This is presented as a stack of table reports. See [Table 5-2 on page 5-6](#) for details on the network element attributes that are displayed in the Inventory Summary Report.
- **Inventory Hardware Report**—Displays hardware information for selected network elements. The Inventory Hardware Report includes user-specified information for each network element. This user-specified information will be displayed only when it is available. See [Table 5-3 on page 5-10](#) for details on the network element attributes that are displayed in the Inventory Hardware Report.
- **Inventory Software Report**—Displays software information including system information, image information, and processor details for selected network elements. User-specified information is also displayed in this report, when it is available. See [Table 5-4 on page 5-10](#) for details on the network element attribute that are displayed in the Inventory Software Report.

**Note**

The generated report contains the same information for all types of network elements. If the information is not available for the selected network elements, then the report is blank.

Reports can be either generated immediately or scheduled. You can export reports to PDF, CSV, HTML, and XML formats.

While creating a report job, you can mark the report as either public or private. If it is a private report, only the user who created the report, and administrators, can view it.

While creating the report job, you can also specify the purge policy of the scheduled report. You can purge reports based on two criteria:

- **Number of versions to retain.** Minimum and maximum number of versions to retain.
The oldest report is purged when the maximum number is reached. For example, if you set the maximum versions to retain to 10, when the eleventh version of a report is archived, the earliest (first version) is purged to keep the total number of latest archived report versions at 10.
- **Delete report older than.** Archived reports older than the number of days that you specify are purged.

Cisco ANA does not purge the archived reports if the number is less than or equal to the specified minimum number of versions to retain.

The purge policy that you specify while creating the inventory report job overrides the policy that you have specified in the Report Settings option in the Tasks tab in the Administration perspective.

To create an inventory report:

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- Step 1** Go to the **Tasks** tab and click the **Reports** drawer.
 - Step 2** Click **New Report**. The Define Report workspace is displayed.

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Step 3 Enter the information required to generate the report and click **Next**:

Field	Description
Report Category	Category of the report, such as Inventory Reports.
Report Type	Type of the report: Inventory Summary Report, Inventory Hardware Report, or Inventory Software Report. This is a mandatory field.
Report Security	Specify whether you want the report to be public or private. - Public reports can be seen and used by other users who have the permission to do these tasks. - Private reports can be seen and used only by the owner (creator), of the reports, and by administrators.
Report Name	Name of the report. You can enter up to 256 characters.
Description	Description of the report. This field is displayed as Job Description in the Job Management window after the report job is scheduled.

Step 4 Select the required network elements using the NE selector in the Select Inventory Parameters workspace and click **Next**.

You can generate a report for a maximum of 1000 network elements.

Step 5 Customize your report in the Customize Layout workspace. The attributes that are listed in the workspace are displayed in the generated report. See [Table 5-2, Inventory Summary Report](#), for more information.

Field/Button	Description
Table Field	
Name	Displays the physical and logical attributes.
Visible	Select the attributes that you want to view in the generated inventory report. The value can be True or False. You can change the value using the drop-down list.
Width	Enter the table column width in pixels. This value is used in the generated report.
Sort Order	Change the order of the attributes using the Move Up and Move Down buttons. The specified order is used in the generated report.
Sort Type	Change the sorting order as ascending or descending using the drop-down list. The specified order is used in the generated report.
Button	
Move Up/Move Down	Define the order of the attributes. The specified order is used in the generated report.
Reset to Default	Restore to default values.
Add/Remove Columns (icon)	Add or remove columns. (This icon is available at the right corner of the Customize Layout workspace.)

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Step 6 Enter the scheduling and purging details in the Configure Schedule/Purge workspace and click **Next**:

Field	Description
Scheduling	
Run Type	Specify the type of schedule for the report job: either immediate or scheduled.
Start date	Specify the date and time when the report job should start. You can either enter the date and time or click the drop-down list to select the date and time. Note The date and time displayed in the Cisco ANA client machine show the client timezone and not the Cisco ANA gateway timezone. If you try to schedule a report to take place at a time in the past, the report is run immediately.
The number of times this job should run	Specify the number of times this job should run. You can either select Infinite or enter number of times this job should run. If you specify Infinite, the job is run until Cisco ANA is uninstalled. If you enter a number, the job is run for that number of times. This is not applicable if you have scheduled an immediate job.
Delay interval between jobs	Specify the time interval between periodic jobs. In other words, if you scheduled to run this job multiple times, enter the time interval between the jobs. You can enter the interval in seconds, minutes, hours, or days. This is not applicable if you have scheduled an immediate job.
Purging	
Delete report older than	Check Delete report older than and enter the number of days.
Minimum number of versions	Enter the minimum number of archived reports to retain.
Maximum number of versions	Enter the maximum number of archived reports to retain.

Step 7 Click **Finish**.

To view the generated report, go to the **Tasks** tab and click the **Report** drawer in the Inventory perspective.

To view the details of the report job, go to the Objects tab and click **Job Management** in the Administration perspective.

Related Topics

- [Roles Required to Manage Reports](#)
- [Using the Report Browser](#)

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Using the Report Browser

You can manage reports using the Report Browser. To launch the Report Browser, go to the Tasks tab and click the **Report** drawer.

The Report Browser lists all the generated reports. The columns in the Report Browser are:

Field	Description
Report Security	Security of the report, Public or Private.
Report Name	Name of the report.
Report Type	Type of the report, such as Inventory Summary Report.
Report Category	Category of the report, such as Inventory Reports.
Report Description	Description of the report.
User	Username of the report job creator.
Creation Time	Creation date and time of the report job.

The Report browser contains the following icons:

Icon/Tooltip	Description
Advance Filter	Enables you to filter based on the Report browser fields.
Add/Remove Columns	Enables you to add or remove columns from the Report browser
Refresh	Enables you to refresh the Report browser.

You can perform these tasks from the Report Browser:

- [Viewing the Generated Inventory Reports, page 5-5](#)
- [Exporting a Report, page 5-11](#)
- [Saving, Printing, and Deleting Reports, page 5-11](#)

Viewing the Generated Inventory Reports

To open a generated inventory report, double-click a report in the Report Browser. The network elements that will be displayed in the inventory reports will be grouped based on UMDF categories.



Note

To view a report, your GUI client must have Adobe Acrobat installed. See the prerequisites in the [Cisco Active Network Abstraction 4.1 Installation and Setup Guide](#) for more information.

The generated report displays the same information for all network element types. In addition to physical and logical inventory, the report contains:

- The user who created the report.
- The time when the report was generated. The generated report shows the Cisco ANA gateway server time.
- The network elements without any successful inventory collection.

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- The number of network elements selected.

The physical and logical information, such as Device Information, Chassis Information, Module Information, Flash Devices, and so on appears as individual tables, and the attributes listed under them appear as columns of the report table.

You can also perform these tasks on the generated reports:

Icon	Tooltip	Description
	Print	Print the generated report.
	Save	Save the generated report.

The following tables describe the attributes that are displayed in the inventory reports:

- [Table 5-2: Inventory Summary Report](#)
- [Table 5-3: Inventory Hardware Reports](#)
- [Table 5-4: Inventory Software Reports](#)

Table 5-2 **Inventory Summary Report**

Custom Report Group/Attribute	Description
Module	
Number of Ports	Number of ports.
Hardware Version	Module hardware version.
Product Version	Hardware version of the module.
Serial Number	Serial number of module.
Manufacturer	Manufacturer details.
Element Type	Vendor-specific equipment designator (hardware type).
Number of Slots	Number of slots.
Operational Status	Operational status of module.
Hardware Type	Module hardware type.
Module IP Address	IP address of the module.
Module Index	System-generated module index. ¹
Firmware Version	Firmware version of module.
User Asset ID	User-assigned asset ID, such as a bar-coded asset tag.
Slot Description	Slot description of module.
Service State	Operational status of module.
Software Version	Module software version.

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Custom Report Group/Attribute	Description
Flash File	
Flash Partition Index	System-generated Flash partition index. ¹
Flash File Index	System-generated Flash file index. This does not represent the numbers present in the Physical Inventory user interface. These are used to track the parent container. For example: Flash partition index has a Flash device index. This implies that the Flash partition is the child of the Flash device with that particular Flash device index.
Name	Name of the Flash device.
Flash Device Index	System-generated Flash device index. ¹
Size	Total Flash device size in megabytes (MB).
Checksum	Checksum of Flash file.
Module Port Interface	
Type	Type of interface.
Interface Index	System-generated interface index. ¹
Speed	Speed of interface in megabits per second (Mb/s).
Last Changed	Time at which the last change occurred.
Port Index	System-generated port index. ¹
Admin Status	Administrative status of interface.
Module Index	System-generated module index. ¹
Image	
Version	Version of the software image on the network element.
System Boot Variable	System boot variable.
Boot Reason	String indicating how the operating system (OS) was last booted.
Image Size	Software image present on the network element.
ROM Version	Version of ROM.
Total Visible Memory	Total amount of physical memory (in bytes) available to the OS.
Feature	Image feature.

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Custom Report Group/Attribute	Description
Flash Partition	
Status	Status of Flash partition.
Flash Partition Index	System-generated Flash partition index. ¹
Flash Device Index	System-generated Flash device index. ¹
Free	Free space in MB.
Upgrade Mechanism	Method of upgrade of Flash partition.
Size	Flash partition size in MB.
Erasure Needed	Whether the partition requires erasure before any write operations can be done in it.
Module Index	System-generated module index. ¹
Checksum Algorithm	Enumeration describing the checksum algorithm that is in place for the file system.
Flash Device	
Element Type	Vendor-specific equipment designator: hardware type.
Product Version	Hardware version of the Flash device.
Type of Memory	Enumeration indicating the type of the memory.
Minimum Partition Size	Minimum partition size, in bytes, as defined by the system.
Maximum Partitions	Maximum number of partitions supported by the system for this hardware.
Module Index	System-generated module index. ¹
Is Volatile	Boolean indicating whether the element is volatile (TRUE) or not (FALSE).
Serial Number	Serial number of module.
Removable	Indicates whether or not the hardware is removable.
Chip Count	Number of chips that make up the physical memory.
Partition Count	Number of partitions on the Flash device.
Flash Device Index	System-generated Flash device index. ¹

DRAFT - 31 MAY 2008 - CISCO CONFIDENTIAL**Table 5-2 Inventory Summary Report (continued)**

Custom Report Group/Attribute	Description
Device	
Enabled State	—
Communication State	Displays whether the VNE can reach the network element it represents; the communication state can cause a change in the investigation state. There are two communication states: Reachable and Unreachable. See VNE States (Investigation and Communication States) , page 2-18 for more information.
Description	System description of the network element.
IP Address	IP address to manage this equipment.
Contact	Contact details.
Lifecycle State	State of the network element, such as Sync in progress, Incomplete, Complete, and so on.
Uptime	Time when the network element became activated.
System Name	System name of the network element.
Location	System location.
Display Name	Network element name that you provide while adding a VNE in Cisco ANA.
Chassis	
User Asset ID	A user-assigned asset ID, such as a bar-coded asset tag.
Manufactured Date	Date the chassis was manufactured.
Product Version	Hardware version of the chassis.
Slot Capacity	Number of slots in this chassis, or -1 if neither applicable nor determinable.
Vendor	Vendor details for the system.
Manufacturer	Manufacturer details.
Product Name	Physical name (text string) assigned to the Cisco entity.
Administered State	State of the chassis.
Chassis Serial Number	Number of the chassis.
Equipment Type	Element's base classification.
Element Type	Vendor-specific equipment designator: hardware type.

1. Does not represent the numbers present in the Physical Inventory user interface. It is used to track the parent container. For example, the Flash partition index has a Flash device index. This implies that the Flash partition is the child of the Flash device with that particular Flash device index.

DRAFT - 31 MAY 2008 - CISCO CONFIDENTIAL**Table 5-3** *Inventory Hardware Reports*

Custom Report Group/Attribute	Description
Capacity	Cumulative capacity of all the Flash devices present in the network element.
NVRAM Size	Size of the processor NVRAM in KB.
Display Name	Network element name as entered in Cisco ANA.
Processor RAM Size	Size of the processor RAM in MB.
Description	Description of the system.
NVRAM Used	Size of the processor NVRAM that has been utilized, in KB.
Contact	Contact details for the system.
ROM Version	Version of ROM.
Chassis Serial Number	Serial number of the chassis.
Location	System location.
Vendor	Vendor details for the system.

Table 5-4 *Inventory Software Reports*

Custom Report Group/Attribute	Description
Chassis Version	Version number of the chassis.
System Image	Running image on the network element (operating system).
Description	Description of the system.
Contact	Contact details for the system.
ROM Version	Version of ROM.
Chassis Serial Number	Serial number of the chassis.
Image Version	Version of the software image on the device.
Location	System location.
Vendor	Vendor details for the system.

Related Topics

- [Creating an Inventory Report](#)
- [Using the Report Browser](#)

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Exporting a Report

The Inventory Summary reports can be exported in the following formats:

- PDF. You must have Acrobat Reader installed on your Cisco ANA client machine to open the Inventory Summary report in PDF format.
- CSV
- HTML
- XML

To export a report:

-
- | | |
|---------------|---|
| Step 1 | Right-click a report in the Report Browser and select Export Report . The Export Report dialog box is displayed. |
| Step 2 | Choose the export format from the drop-down list. The generated report appears in the workspace. |
| Step 3 | Click Save . |
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Related Topics

- [Creating an Inventory Report](#)
- [Using the Report Browser](#)

Saving, Printing, and Deleting Reports

To save a report:

-
- | | |
|---------------|--|
| Step 1 | Double-click a report in the Report Browser. The generated report is displayed in the workspace. |
| Step 2 | Click Save ., Print , or Delete . |
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Related Topics

- [Creating an Inventory Report](#)
- [Using the Report Browser](#)

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