CHAPTER 10

Report Designer

This chapter explains :

- User Tracking Report Designer
- Medianet Custom Layouts
- Using Syslog and Inventory Custom Report Designer

User Tracking Report Designer

The Report Generator in User Tracking allows you to view System-defined reports and Custom reports. You can also schedule to generate these reports immediately, once, daily, weekly, monthly or quarterly.

You can generate the following reports using Report Generator:

Select an Application	Select a Report
End Hosts	All Host Entries.
IP Phones	All IP Phone Entries

This section explains:

- Using Custom Reports
- Using Custom Layouts

Using Custom Reports

You can customize the layout and columns displayed in the reports to suit your needs.

For example, you can design a layout that displays only the MAC addresses of hosts on your network.

You can create, view, edit, copy, and delete user-defined reports for end hosts and IP phones using the Custom Reports option.

This section contains:

- Viewing a Custom Report
- Creating Custom Reports
- Editing Custom Reports

- Copying Custom Reports
- Deleting Custom Reports

Viewing a Custom Report

To view a Custom Report:

Step 1 Select **Reports>UserTracking.**

Step 2 Choose any report from the list the appears.

Step 3 In the Reports tree on the left, under **User Tracking** choose **test**.

The jobs appear at the bottom of the page.

Step 4 To view the report of a job, click "View Report".

The correponding report page of that job appears, displaying the report details. For more information, see Creating Custom Reports.

Creating Custom Reports

You can create Custom reports by clicking **Create** in the Available Custom Reports dialog box.

To create Custom reports:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Reports**.

The Custom Reports dialog box contains the list of Available Reports.

Step 2 Click **Create**.

You can use the Custom Reports wizard to customize and create reports. The Type selection page appears.

Step 3 Select the type of devices for which you need the report, from:

- End Host—Contains all the devices managed by LMS 4.1, including IP phones.
- IP Phones—Contains only the IP phones managed by LMS 4.1.

Step 4 Click **Next**.

The Group Selection page appears.

Step 5 Select the devices from the Group Selection box.

Step 6 Click **Next**.

The Properties and Query Expression page appears. See Table 10-1.

Table 10-1 Properties and Query Pane Field Description

Field	Description
Name	Enter a name for the query you are going to create.
Description	Enter a description for the query you are going to create.
Select a type • Simple • Advanced	Select the type of query. • Simple In the Query Expression area, select the radio button to search using any of the options or all the options that you select. Select the options for the query, from: – Column—Select a query expression based on which you want to generate the report. – Operator—Select a logical operator for the query expression. – Pattern—Enter a pattern for the selected query expression. The pattern field to search the pattern for MAC Address Column is enhanced to include the following separators: dot (.) or colon (:). You can also search the pattern for MAC Address without any separators. For example: String for pattern FF:FF:FF:FF:FF:FF can be replaced with continuous string FFFFFFFFFFFF. • Advanced You can enter the query string in the Query Text area. Click **Check Syntax** to validate the query string. Select the options to create the query string, from the Query Expression area. You can choose the sort criteria and add the string for them. To query using the **Last Seen** option, you must enter the date in the format yyyy/mm/dd hh:mm:ss..

Step 7 Click **View** to launch the report and view details.

Step 8 Click **Next**.

The Summary page appears. The Custom Report Summary pane displays a summary of the values and options you have selected for the query to generate the report.

Editing Custom Reports

You can edit custom reports by clicking **Edit** in the Available Custom Reports dialog box.

To edit Custom reports:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Reports.**

The Custom Reports dialog box contains the list of Available Reports.

Step 2 Select a report and click **Edit**.

You can use the Custom Reports wizard to modify group, report properties, and query expressions.

Copying Custom Reports

You can copy Custom reports by clicking **Copy** in the Available Custom Reports dialog box.

To copy Custom reports:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Reports**

The Custom Reports dialog box contains the list of Available Reports.

Step 2 Select a report and click **Copy**.

You can use the Custom Reports wizard to modify the Name of the report, group, report properties, and query expressions.

Deleting Custom Reports

You can delete Custom reports by selecting a report from the Available Custom Reports dialog box and clicking **Delete**.

To delete Custom reports:

Step 1 **Reports > Report Designer > User Tracking > Custom Reports**.

The Custom Reports dialog box contains the list of Available Reports.

Step 2 Select a report, and click **Delete**.

Using Custom Layouts

You can create or customize the columns displayed in Custom Reports using Custom Layouts option in the Report Designer tab of Reports. This section contains:

- Viewing List of Custom Layouts
- Creating Custom Layouts
- Editing Custom Layouts
- Copying Custom Layouts
- Deleting Custom Layouts

Viewing List of Custom Layouts

You can view the list of Custom layouts using the Custom Layouts option in the Report Designer tab.

To view the list of Custom layouts:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Layouts**

The Custom Layouts dialog box contains the list of Available Layouts.

Note Standard layouts are available after a fresh install. You can edit the standard layouts. However, you cannot delete them.

Creating Custom Layouts

You can create Custom layouts by clicking **Create** in the Available Custom Layouts dialog box.

To create Custom layouts:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Layouts**.

The Custom Layouts dialog box contains the list of Available Layouts.

Step 2 Click **Create**.

Step 3 Select the type of report for which you want to create the layout.

Step 4 Select the columns that you want displayed in the report from the Available Sources list.

Step 5 Use the Up and Down arrow keys to arrange the columns in the order in which you want them displayed.

Step 6 Click **Add** to add the selected columns to the Selected Sources list.

Step 7 Specify the Name and Description of the customized layout.

Step 8 Click **OK**.

Editing Custom Layouts

You can edit Custom layouts by clicking **Edit** in the Available Custom Layouts dialog box.

To edit Custom reports:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Layouts**.

The Custom Layouts dialog box contains the list of Available Layouts.

Step 2 Click **Edit**.

Step 3 Select the columns that you want displayed in the report from the Available Sources list.

Step 4 Click **Add** to add the selected columns to the Selected Sources list.

Step 5 Select the columns that you want removed from the Selected Sources list.

Step 6 Click **Remove** to remove these fields from the customized layout.

Step 7 Specify the Description of the customized layout.

Step 8 Click **OK**.

Note Editing Standard Layout columns is seen only in Device Center and external applications. They are not seen in UT jobs.

Copying Custom Layouts

You can copy Custom layouts by clicking **Copy** in the Available Custom Layouts dialog box.

To copy Custom layouts:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Layouts**.

The Custom Layouts dialog box contains the list of Available Layouts.

Step 2 Click **Copy**.

Step 3 Select the columns that you want displayed in the report from the Available Sources list.

Step 4 Click **Add** to add the selected columns to the Selected Sources list.

Step 5 Select the columns that you want removed from the Selected Sources list.

Step 6 Click **Remove** to remove these fields from the customized layout.

Step 7 Specify the Name and Description of the customized layout.

Step 8 Click **OK**.

Deleting Custom Layouts

You can delete Custom layouts by selecting a layout from the Available Custom Layouts dialog box and clicking **Delete**. To delete Custom layouts:

Step 1 Select **Reports > Report Designer > User Tracking > Custom Layouts**.

The Custom Layouts dialog box contains the list of Available Layouts.

Step 2 Select the layout that you want to delete and click **Delete**.

Medianet Custom Layouts

LMS allows you to generate a Medianet Endpoint Inventory Report. For more information, see Generating Medianet Reports

You can customize the columns displayed in the Medianet Endpoint Inventory Report using **Reports > Report Designer > Medianet Custom Layouts**.

You can view, create, and copy Medianet Custom Layouts. You can customize the inventory report by selecting the required location attributes and end host attributes. You cannot edit or delete the standard layouts.

The following Medianet default layouts are available after a fresh install:

- Digital Media Player Standard—Standard layout for Digital Media Player (DMP) endpoints
- IP Video Surveillance Camera Standard—Standard layout for IP Video Surveillance Camera (IPVSC) endpoints
- Medianet Endpoints Standard—Standard layout for all Medianet endpoint types.

Using Syslog and Inventory Custom Report Designer

The Custom Templates option lets you create new report templates customized according to your requirements. You can also edit, or delete existing custom templates.

This section contains:

- Creating a Custom Report Template
- Creating an Inventory Custom Report Template
- Modifying an Inventory Custom Template
- Deleting an Inventory Custom Template
- Understanding Template Rules Evaluation
- Examples of Custom Template Definitions
- Creating a Syslog Custom Report Template
- Editing a Custom Template
- Deleting a Custom Template

When you select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates**, a list of all custom templates is displayed in the dialog box on the Custom Templates page.

The columns in the Custom Templates dialog box are:

Column	Description
Template Name	Name of the template. If you click on this hyperlink, the details of the template are displayed in a pop-up window.
Report Type	Syslog report, or inventory report.
Owner	User who created the template.
Last Modified Time	Date (yyyy-mm-dd) and the time (hh:mm:ss) when the report was last modified.

Using the custom templates dialog box, you can do the following tasks:

Task	Button
Create a custom template (see Creating an Inventory Custom Report Template).	Create

Task	Button
Modify a custom template (see Modifying an Inventory Custom Template).	Edit
Delete a custom template (see Deleting an Inventory Custom Template).	Delete

Note View the Permission Report (**Reports > System > Users > Permission**) to check if you have the privileges required to perform these tasks.

Creating a Custom Report Template

To create a custom report template:

Step 1 Select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates**.

The Custom Templates dialog box appears with a list of all templates, see Creating a Syslog Custom Report Template.

Step 2 Click **Create**.

The Application Selection dialog box appears.

Step 3 Select the required application—Syslog, or Inventory.

Step 4 Click **Next**.

The dialog box for the selected application appears.

For details see:

- Syslog custom reports—The topic Creating a Syslog Custom Report Template
- Inventory custom reports—The topic Creating an Inventory Custom Report Template.

Creating an Inventory Custom Report Template

You can create a custom report template for Inventory.

This section also explains:

- Adding a Rule
- Modifying a Rule
- Deleting a Rule

Note View the Permission Report (**Reports** > **System** > **Users** > **Permission**) to check if you have the privileges required to perform this task..

To create a custom report template:

Step 1 Select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates**.

The Custom Templates dialog box appears.

Step 2 Click **Create**.

The Application Selection dialog box appears.

Step 3 Select Inventory.

Step 4 Click **Next**.

The Template Properties dialog box appears.

Step 5 Enter a unique name for the custom report template, in the Report Name field.

This is a mandatory field. You can use the character set for the template names including A to Z, a to z, 0 to 9, -, _, .,), (, / and blank spaces in the report name. The report name should not exceed 60 characters.

Step 6 Specify whether you want the template to be available for Public access, or Private access.

Templates that you specify as Public can be seen by other users who are authorized to view this page. Such users can also generate reports using public Templates.

Private templates can be seen by the system administrator and the owner (creator) of the templates. However, only the owner (creator) can generate reports using these Private templates.

Step 7 Click **Next**.

The Custom Template Rules dialog box appears.

Step 8 Use the Custom Template Rules dialog box, to:

- Add a rule (see Adding a Rule).
- Modify a rule (see Modifying a Rule).
- Delete a rule (see Deleting a Rule).

The Custom Template Rules dialog box has these buttons:

- Add—Adds a rule to the custom template (see Adding a Rule).
- Save Changes—Saves the changes that you made to a rule. This button is available only if you select a rule in the Rule List. It is used to save the changes that you made to an existing Rule. To cancel your changes, click the Discard Changes button (also see Modifying a Rule).
- Delete—Deletes a rule (see Deleting a Rule). You can select one or more rules for deletion. This button is available only if you select a rule from the Rule List.
- Discard Changes—Cancels the changes that you made to a rule. This button is available only if you select a rule the from Rule List. Click this button if you do not want to save the changes that you have made to an existing rule.

Step 9 Click **Next**.

The Custom Template Summary window appears, with the summary information about the rules that you have created.

A sample summary is as follows:

```
Report Name:  FlashDeviceModel
Access Type:  Private
Template Rules:  Flash Device:Model Name:equals:All
```

Step 10 Click **Finish**.

A message appears confirming that the Report template has been created successfully.

The Custom template that you created appears in the Custom Templates dialog box.

Adding a Rule

To add a rule:

Step 1 In the Custom Template Rules dialog box, select information from the following fields:

Field	Description
Association	Select an association. If you are adding a rule for the first time, this drop-down list does not display any values. After you have added a rule and when you need to add another rule, this drop-down list has the values AND and OR.
Inventory Group	Select the Inventory Group for which you are creating the rule. For details see Table 10-2.
Attribute	Select an attribute. The attributes that are available in the drop-down list are based on the Inventory group that you selected. For example, if you select flash device as the Inventory group, the Attributes available for selection are: • Flash Device Size (MB) • Model Name For details see Table 10-2.
Operator	Select the operator.
Value	Select the value. The value depends on the type of attribute chosen earlier The default value is ALL

Table 10-2 shows the Inventory Groups and Attributes:

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Asset	CLE Identifier
	Mfg Assembly Number
	Mfg Assembly Revision
	Orderable Part Number
	User-defined Identifier

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Back Plane	Description
	Manufacturer Name
	Model Name
	Physical Entity Name
	Serial Number
	Slot Configuration
	Vendor Type
Chassis	Chassis Model Name
	Chassis Serial Number
	Chassis Vendor Type
	Chassis Version
	Description
	Free Slots
	Manufacturer Name
	Number of Slots
	Physical Entity Name
	Port Count
	Power Available (Watts)
	Power Consumption (Watts)
	Power Consumption (%)
	Power Remaining (Watts)
	Report Publishes
	Slot Capacity
	Slot Configuration

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Civic Address Location	Additional Code
	AdditionalLocation
	Building
	City
	CityDivision
	County
	Floor
	House
	LandMark
	LeadingStreetDirection
	Name
	Neighborhood
	Place
	PostalCommunityName
	PostOfficeBox
	PrimaryRoad
	RoadBranch
	RoadSection
	RoadSubBranch
	Room
	Seat
	State
	StreetGroup
	StreetNamePostMod
	StreetNamePreMod
	StreetSuffix
	TrailingStreetDirection
	Unit
	ZipCode
Device Type	Category
	Series
	Model

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Device Location	Country Code
	If Index
	Port Name
	Sub type Capability
	Target Type
EnergyWise Device	Domain Name
	EnergyWise Decie State
	Importance
	Key Word
	Role
EnergyWise Interface	Importance
	Key Word
	Role
Fan	Description
	Fan Model Name
	Fan Serial Number
	Fan Vendor Type
	Manufacturer Name
	Physical Entity Name
	Slot Configuration
Flash Device	Chip Count
	Controller
	Description
	Flash Device Size (MB)
	Jumper
	Maximum Partitions
	Minimum Partition Size(MB)
	Name
	Partition Count
	Removable
Flash File	Check Sum
	Path Name
	Size (MB)
	Status

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Flash Partition	Algorithm
	Erase Needed
	Filename Length
	Free (KB)
	Name
	Size (MB)
	Status
	Upgrade Method
IP Address	Broadcast Address
	IP Address
	Max Re-assemble Size
	Network Mask
	Protocol Address
Image	Build Time
	Description
	Family
	Feature
	Image
	Image Version
	Media
	Minimum Boot Falsh (MB)
	Minimum DRAM (MB)
	Minimum NVRAM (MB)
	Module
	ROM Sys Version
	ROM Version
	Sys Description
	System Boot variable
	System Image File

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Interface	Admin Status
	Alias
	Last Changed
	MTU
	Name
	Operational Status
	Physical Address
	Speed (Mbps)
	Type
Memory	Size (MB)
Memory Pool	Alternate Pool
	Free (MB)
	Largest Free Block Size (MB)
	Name
	Used (MB)
	Validity
	Type
Module	Description
	FW Version
	Hardware Encryption
	HW Version
	Inline Power Capable
	Manufacturer Name
	Model Name
	Module IP Address
	Multi Service
	Number of Slots
	Physical Entity Name
	Port Count
	Serial Number
	Slot Configuration
	SW Version
	Vendor Type

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Port	Maximum Power
	Power Allocated
	Power Available
	Power Consumption
	Power Consumption (%)
	Power Remaining
	PoE Admin Status
Power Supply	Description
	Manufacturer Name
	Physical Entity Name
	Power Supply Model Name
	Power Supply Serial Number
	Power Supply Vendor Type
	Slot Configuration
Processor	Config Register Value
	Description
	FW Vesrion
	Hardware Encryption
	HW Vesrion
	Inline Power Capable
	Manufacturer Name
	Model Name
	Module IP Address
	Multi Service
	Number of Slots
	NV RAM Size (KB)
	NV RAM Used (KB)
	Physical Entity Name
	PortCount
	RAM Size (MB)
	Reboot Config Register Value
	Serial Number
	Slot Configuration
	SW Version
	Vendor Type

Table 10-2 Inventory Groups and Attributes

Report Inventory Group	Custom Report Group/Attribute
Sensor	Description
	Manufacturer Name
	Physical Entity Name
	Sensor Model Name
	Sensor Serial Number
	Sensor Vendor Type
	Slot Configuration
Stack	Description
	Manufacturer Name
	Physical Entity Name
	Stack Model Name
	Stack Serial Number
	Stack Vendor Type
	Slot Configuration
System	Contact
	Description
	Domain Name
	Location
	Name
	System Object ID
	SysUpTime
	Updated at
	User-defined Serial No.
UDF	For example: • User_defined_field_0 • User_defined_field_1 • User_defined_field_2

Step 2 Click **Add** to save the rule.

The rule that you created, appears in the Rules List section. You can add more than one rule.

To understand how evaluates rules, see Understanding Template Rules Evaluation.

Modifying a Rule

To modify a rule:

Step 1 Select the required rule from the Rules List section of the Custom Template Rules dialog box.

The values that you had selected previously for this rule, appear in their respective fields.

Step 2 Change these values as required.

Step 3 Click **Save Changes**.

The rule is modified.

If you do not want to save your changes, click **Discard Changes**.

After you select a rule from the Rules List section, you cannot move to the next dialog box by clicking **Next**. A message appears:

```
You are currently modifying a rule. You are not allowed to proceed to the next step until
you complete the current task. Click Save Changes to save the current changes or Discard
Changes to cancel.
```

Deleting a Rule

To delete a rule:

Step 1 Select the rule to be deleted from the Rule List section of the Custom Template Rules dialog box. You can select one or more rules for deletion.

Step 2 Click **Delete**.

A message appears prompting you to confirm the deletion. If you confirm the deletion, the rule is deleted.

Modifying an Inventory Custom Template

You can modify a custom report template.

Note View the Permission Report (**Reports > System > Users > Permission**) to check if you have the privileges required to perform this task.

To modify a custom template:

Step 1 Select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates**.

The Custom Templates dialog box contains a list of Custom templates.

Step 2 Select the required custom template from the list, and click **Edit**.

The Template Properties dialog box appears. The fields in the dialog box display the properties of the selected template.

Step 3 Click **Next**.

The Custom Templates Rules dialog box appears.

For a description of the columns in the Custom Reports Templates dialog box, see Using Syslog and Inventory Custom Report Designer.

If required, you can modify the template by:

- Adding a Rule
- Modifying a Rule
- Deleting a Rule

Step 4 Click **Next**.

The Custom Template Summary window appears, with the summary information about the rules that you have modified.

Step 5 Click **Finish**.

A confirmation message appears, that the Report template has been modified successfully.

The modified custom template appears in the custom templates dialog box.

Deleting an Inventory Custom Template

You can delete a custom report template for Inventory.

Only users with System Administrator privileges can delete (but not edit) any Public or Private templates created by any user. This privilege is given to the System Administrator to clean up the system when a owner of a template has ceased to exist within the system.

Note View the Permission Report (**Reports > System > Users > Permission**) to check if you have the privileges required to perform this task.

Note If you delete a template, any job created with the template will fail.

To delete a custom report template:

Step 1 Select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates**.

The custom templates dialog box contains a list of custom templates.

Step 2 Select the custom template to be deleted. You can select one or more custom templates for deleting.

Step 3 Click **Delete**.

A message appears prompting you to confirm the deletion.

If you confirm the deletion, the template is deleted and will not appear in the Inventory custom report template dialog box.

Understanding Template Rules Evaluation

This section helps you understand how the template rules are evaluated by LMS:

- Rules are evaluated from 1to n (left to right).
- The rules with AND operators will be evaluated first and then the OR operator will be applied on the AND operator results.

  If a template has rules a, b, c and d and they are given as a AND b OR c AND d, this set of will be evaluated as (a AND b) OR (c AND d).
- If you want to just see the data for a set of attributes, you can:
  - Choose the group and attribute without any operator and value.

    or
  - Choose the group and attribute with the operatior and value as ALL. The association string can be either AND or OR.

    This scenario is only when there are no criteria for any of the rules, and you want to view the data for a set of attributes.

As the use of brackets is not supported for rules, you must define the template rules with a good understanding of the evaluation mechanisms (see Understanding Template Rules Evaluation).

Also, if you want to order the rules, then you need to delete the existing rules and add them again as required, or redefine the template, that is, delete it and create it anew.

Examples of Custom Template Definitions

This section contains examples of template definition and the expected output.

- Template Definition Example 1
- Template Definition Example 2
- Template Definition Example 3
- Template Definition Example 4
- Template Definition Example 5
- Template Definition Example 6
- Template Definition Example 7
- Template Definition Example 8
- Template Definition Example 9
- Template Definition Example 10
- Template Definition Example 11
- Template Definition Example 12
- Template Definition Example 13

Note If none of the selected devices satisfy the criteria that you have specified, a message appears: `None of the selected devices match the specified criteria.`

Template Definition Example 1

To view IP Addres details of devices that contain 1 as part of the IP Address you must create the rule: the rule **`IPAddress:IPAddress:contains:1`**, in the custom report output, you will get all the IP address of devices that contains `1` as part of the IP Address.

Template Definition Example 2

ITo view the device chassis, vendory type, port count of module and processor, for devices that have a vendor type of xyz, module port count > 0, or processor port count > 0, the template definition is:

```
Chassis:VendofType:equals:xyz
AND:Module:PortCount:>:0
OR:Chassis:VendofType:equals:xyz
AND:Processor:PortCount:>:0
```

In general mathematical notation, if you want to get the result of A AND (B OR C) where A, B and C are the rules, you need to define the rule as A AND B OR A AND C. This is treated as (A AND B) OR (A AND C).

The default evaluation is that all rule blocks associated with AND are evaluated first and then in the next step of evaluation OR is applied on the resultant blocks. That is, all rules with the association string AND are clubbed together and evaluated.

Template Definition Example 3

To view IP Address details and memory type of devices that contain 10.36 in the IP Address, and that are of memory type I/O, the template definition is:

```
TemplateDef: IPAddress:IPAddress:contains:10.36
OR:Memory:Type:equals:I/O
```

Template Definition Example 4

ITo view the image version details and the flash file size of devices that contain 1 in the image version, the template definition is:

```
Image:Image Version:contains:1
AND:Flash File:Size (MB)
```

The custom report is generated.

Template Definition Example 5

To view the flash file size and image version of all selected devices, the template definition is:

```
Image:Image Version:contains:1
OR:Flash File:Size (MB)
```

The OR condition without criteria means all flash device sizes.

Template Definition Example 6

To view the Interface types of devices when the interface type is gigabitEthernet or voiceFXS, the template definition is:

```
Interface:Type:equals:gigabitEthernet
OR:Interface:Type:contains:voiceFXS
```

Template Definition Example 7

To view the user_defined_field_2 and the Total Flash Device Size of devices that have have a Total Flash Device Size greater than 45 MB, and that have the string xyz in the user_defined_field_2, the template definition is:

```
UDF:user_defined_field_2:contains:xyz
OR:Flash Device:Total Flash Device Size (MB):>:45
```

Template Definition Example 8

To view all the given attributes for the selected devices, the template definition is:

```
Chassis:Port Count
AND:IP Address:IP Address
AND:Processor:NVRAM Used (KB)
AND:Processor:Port Count
AND:Processor:RAM Size (MB)
AND:System:Description
AND:Interface:Type
OR:UDF:user_defined_field_2
AND:Flash Partition:Free (KB)
```

If any attribute is not collected from the device or if the attribute is not applicable for any device "N/A" is displayedagainst the attribute in the report.

Template Definition Example 9

To view details of devices that have both processor memory, and I/O memory, the template definition is:

```
Memory:Type:equals:Processor Memory
AND:Memory:Type:equals:I/O
```

Template Definition Example 10

To view the memory type and memory size details for devices that have both processor memory and I/O memory, or other and processor memory, the template definition is:

```
Memory:Type:equals:Processor Memory
AND:Memory:Type:equals:I/O Memory
OR:Memory:Type:equals:Other
AND:Memory:Type:equals:Processor Memory
AND:Memory:Size.
```

Template Definition Example 11

To view the memory size of the devices located in Bangalore, Chennai and San Jose, the template definition is:

```
System:Location:equals:Banglore
or:System:Location:equals:Chennai
or:System:Location:equals:SJ
AND:Memroy:Size(MB):equals:ALL
```

Template Definition Example 12

To view user_defined_field_0, and user_defined_field_3 for devices that contain the string xyz in user_defined_field_0, the template definition is:

```
UDF:user_defined_field_0:contains:xyz
AND:UDF:user_defined_field_3
```

For information on cwcli invreport command, see the cwcli section: CLI Utilities in *Configuration Management with Cisco Prime Lan Management Solution 4.1*

Template Definition Example 13

To view all devices that were up from 12 midnight on 1st January, 2000:

```
System:SysUptime(yy:mm:dd:hh):>=:01:01:01:00
```

Creating a Syslog Custom Report Template

To create a custom report template:

Step 1 Select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates.**

The custom templates dialog box appears.

Step 2 Click **Create**.

The Application Selection dialog box appears.

Step 3 Select **Syslog**.

Step 4 Click **Next**.

The Syslog custom report template dialog box appears. The messages that have previously been defined are displayed here.

The columns in the Syslog custom reports templates dialog box are:

Column	Description
Facility	Facility is a hardware device, a protocol, or a module of the system software; for example, SYS. See the Cisco IOS reference manual System Error Messages for a predefined list of facility codes.
Sub-Facility	Sub-Facility is the subfacility in the device that generated the Syslog message. In most cases, this is blank. An example of an entry in this field is CCM_CDR_INSERT-GENERIC-0-OutOfMemory.
Severity	The severity level for the messages. The following are the severity codes: 0—Emergencies 1—Alerts 2—Critical 3—Errors 4—Warnings 5—Notifications 6—Informational
Mnemonic	Code that uniquely identifies the error message. For example, UPLOAD, RELOAD,CONFIG.
Description	Description of the Syslog message.

Step 5 Enter a unique name for the custom report template, in the Custom Report Name field.

Step 6 Specify whether you want the custom report template to be Public or Private.

Public templates can be seen and used by other users who have the permissions to do these tasks. Private templates can be seen and used by only the owner (creator) of the templates.

Using the Syslog custom report template dialog box, you can do the following tasks:

Task	Button
Add a message type (see Adding a Message Type.)	Use the Add button.
Edit a message type (see Editing a Message Type.)	Use the Edit button.
Delete a message type (see Deleting a Rule.)	Use the Delete button.
Select a message type from a set of standard messages (see Selecting a Message Type.)	Use the Select button.

Step 7 Click **Finish**.

A confirmation message appears that the report has been successfully created.

Your custom report template is displayed in the dialog box on the Custom Templates page (**Reports > Report Designer > Syslog and Inventory Report Designer > Custom Templates**).

To run the report, see .

Adding a Message Type

To add a message type:

Step 1 Click **Add** in the Define New Message Type section of your dialog box.

The Define New Message Type dialog box appears.

Step 2 Enter the required information.

Column	Description
Facility	Enter the codes for the facilities you want reported. A facility is a hardware device, a protocol, or a module of the system software. See the Cisco IOS reference manual, System Error Messages, for a predefined list of system facility codes. Each code can consist of two or more uppercase letters. You can enter several facility codes, separated by commas, for example, SYS,ENV,LINK. If you do not enter any facility but use the asterisk, all the facilities will be reported.
Sub-Facility	Enter the codes for the sub-facilities you want reported. Sub-Facility is the subfacility in the device that generated the Syslog message. An example of an entry in this field is CCM_CDR_INSERT-GENERIC-0-OutOfMemory. This is an optional field. If you do not enter any sub-facility but use the asterisk, all the sub- facilities will be reported.
Severity	Enter codes for the message severity levels you want reported. The following codes are supported: 0—Emergencies 1—Alerts 2—Critical 3—Errors 4—Warnings 5—Notifications 6—Informational If you do not enter any severity level but use the asterisk, all severity levels will be considered.
Mnemonic	Enter a code that uniquely identifies the error message. To match for Catalyst 5000 family devices, enter a hyphen (-) to indicate an empty mnemonic field. You can enter several mnemonics, separated by commas. An example is UPLOAD, RELOAD,CONFIG.
Description	Enter the Syslog message description. For example, *REBOOT*, *SNMP*, *telnet*, etc. If you do not want to specify a description, leave in the default asterisk.

Step 3 Click **Save**.

The new message type is added, and appears in the Define New Message Type section of your dialog box.

If you want to save the information and add another message type, click **Save and Add**.

Deleting a Message Type

To delete a message type:

Step 1 Select the required message type from the Define New Message Type section of your dialog box.

Step 2 Click **Delete**.

You will be asked to confirm the deletion. If you confirm the deletion, the message type is deleted.

Editing a Message Type

To edit a message type:

Step 1 Select the required message type from the Define New Message Type section of your dialog box

Step 2 Click **Edit**.

The Define New Message Type dialog box contains the previously entered information in the fields (for the field descriptions, see Adding a Rule).

Step 3 Edit the information and click **Save**.

The message type is edited.

Selecting a Message Type

To select a system defined message type:

Step 1 Click **Select** in the Define New Message Type section of your dialog box.

The Select System Defined Message Types dialog box appears.

Step 2 Select the required system defined message type.

Step 3 Click **OK**.

The selected message appears in the Define New Message Type section of your dialog box.

Editing a Custom Template

To edit a custom template:

Step 1 Select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates**.

The custom templates dialog box contains a list of custom templates.

Step 2 Select the required custom template and click **Edit**.

The Syslog custom report template dialog box appears. The messages that have previously been defined, appear here.

For the description of the columns in the Syslog custom reports templates dialog box, see Using Syslog and Inventory Custom Report Designer.

If required, you can:

- Change the Custom Report accessibility—Private to Public or vice-versa.
- Add a message type (see Adding a Rule.)
- Edit a message type (see Editing a Message Type.)
- Delete a message type (see Deleting a Rule.)
- Select a message type from system-defined message types (see Deleting a Rule.)

Step 3 Click **Finish**.

The edited custom template appears in the custom templates dialog box.

Deleting a Custom Template

To delete a custom report template:

Step 1 Select **Reports > Report Designer > Syslog and Inventory Report Designer > Custom Report Templates**.

The custom templates dialog box contains a list of custom templates.

Step 2 Select the required custom template.

Step 3 Click **Delete**.

You will be asked to confirm the deletion. If you confirm the deletion, the template will be deleted.

The Syslog custom report template is deleted and no longer appears in the Syslog custom report template dialog box.