



## CHAPTER 3

# Monitoring with the Multicast Manager Tool

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This chapter contains the following sections:

- [Viewing the Multicast Manager Home Page, page 3-1](#)
- [Viewing Topology, page 3-2](#)
- [Managing Reports, page 3-6](#)

## Viewing the Multicast Manager Home Page

When you log into the CMM, the Multicast Manager Home Page opens. To access this page from within the CMM, select the **Multicast Manager** tool, then select **Home**.

The **Home** page shows the last 20 events (see the “[Latest Events](#)” section on page 3-7).

Figure 3-1 Multicast Manager Home Page

**Cisco Multicast Manager**

Tool: Multicast Manager Management Domain: .test-01 Licensed to Cisco

Home Topology Reporting Diagnostics Help

**Latest Events**

Date	Type	Device	Details
Thu Apr 26 18:20:00 2007	RP S,G Removed	cmm-7206-sd1	Group: 224.2.127.254, Source: 126.32.3.232
Thu Apr 26 18:20:00 2007	RP S,G Removed	cmm-7206-sd1	Group: 232.1.1.6, Source: 126.32.3.232
Thu Apr 26 18:20:00 2007	RP S,G Removed	cmm-7206-sd2	Group: 224.2.127.254, Source: 126.32.3.232
Thu Apr 26 18:16:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 880.312, Threshold: 50
Thu Apr 26 18:16:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 465.76, Threshold: 50
Thu Apr 26 18:15:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 704.664, Threshold: 50
Thu Apr 26 18:15:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 395.488, Threshold: 50
Thu Apr 26 18:14:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 798.424, Threshold: 50
Thu Apr 26 18:14:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 504.108, Threshold: 50
Thu Apr 26 18:13:01 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 817.672, Threshold: 50
Thu Apr 26 18:12:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 854.784, Threshold: 50
Thu Apr 26 18:12:02 2007	Video Flow MLR High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 203, Threshold: 0
Thu Apr 26 18:12:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 404.852, Threshold: 50
Thu Apr 26 18:12:02 2007	Video Flow MLR High	CMM-G1T-VP1	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 423, Threshold: 0
Thu Apr 26 18:12:02 2007	Video Flow MLR High	CMM-G1T-VP2	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 409, Threshold: 0
Thu Apr 26 18:12:02 2007	Video Flow MLR High	CMM-G1T-VP2	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 189, Threshold: 0
Thu Apr 26 18:11:02 2007	Video Flow MLR High	CMM-G1T-VP2	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 35, Threshold: 0
Thu Apr 26 18:11:02 2007	Video Flow MLR High	CMM-G1T-VP2	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 135, Threshold: 0
Thu Apr 26 18:11:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 739.664, Threshold: 50
Thu Apr 26 18:11:02 2007	Video Flow MLR High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 238, Threshold: 0
Thu Apr 26 18:10:02 2007	Video Flow DF High	CMM-G1T-VP2	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 387.136, Threshold: 50
Thu Apr 26 18:10:02 2007	Video Flow DF High	CMM-G1T-VP2	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 800.096, Threshold: 50
Thu Apr 26 18:10:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 906.032, Threshold: 50
Thu Apr 26 18:10:02 2007	Video Flow MLR High	CMM-G1T-VP1	Group: <u>232.1.1.6</u> (), Source: 126.32.3.232, Value: 302, Threshold: 0
Thu Apr 26 18:10:02 2007	Video Flow DF High	CMM-G1T-VP1	Group: <u>239.233.1.1</u> (), Source: 126.32.3.232, Value: 355.056, Threshold: 50

**Domains**

Domain	Devices
.mike	9
.test-01	0
neill	1
test-01	9

**Polling Engine Status**

(Polling Daemon is Running since Thu Apr 26 18:12:23 2007)

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## Viewing Topology

Using **Topology**, you can display routers and their multicast information in the database, on an individual basis, or by showing the complete database.

If you are using video probes in your installation, the Cisco Multicast Manager home page displays threshold exceeded alerts that the probes generate. You can click on the group information in the alert (an underlined IP address) to launch the Diagnostics tool and view detailed information about the multicast, which includes a display of the network topology that includes both routers and probes.

This section contains:

- [Viewing Router Topology and Multicast Information, page 3-3](#)
- [Viewing Topology Including Probe Information, page 3-5](#)

## Viewing Router Topology and Multicast Information

To view router topology and multicast information:

- Step 1** Select the **Multicast Manager** tool.
- Step 2** Click **Topology**.
- Step 3** To see the complete database, select **Display All**.

A network topology table appears, as shown in [Figure 3-2](#). Router names appear at the top of each table.

**Figure 3-2** Topology Display All

For each device, the table shows the following information:

Field	Description
Local Int	Interfaces running multicast.
Local IP	IP address of the interfaces.
PIM Mode	PIM Mode, can be sparse or dense.
IGMP	IGMP version.
Neighbor	PIM neighbor name.
Neighbor's INT	PIM neighbor's interface.
Neighbor IP	PIM neighbor's IP address.
PIM Mode	PIM neighbor's mode, can be sparse or dense.
IGMP	IGMP version of PIM neighbor.
DR	DR information.

- Step 4** To see topology for an individual router, click a router from the list pane at the lower left of the interface. Topology information for the selected device appears, as shown in [Figure 3-3](#).

**Figure 3-3** Topology for an Individual Router

The screenshot shows the Cisco Multicast Manager 2.3.4 interface in a Microsoft Internet Explorer browser. The address bar shows the URL `http://es1-cmm:8080/per/topo.pl#`. The interface has a navigation menu with options: Home, Topology, Reporting, Diagnostics, and Help. The 'Topology' tab is selected. On the left, there is a list of devices under the heading 'gtest2 - 10 devices:'. The selected device is 'es1-7606-c2'. The main display area shows 'Topology Information for es1-7606-c2 when discovered'. Below this, there are input fields for 'Username', 'Password', and 'Show Command', with a 'Show' button. Two tables are displayed: 'PIM Neighbors' and 'PIM Interface Mode'.

Local Int	Neighbor	Neighbor IP	Neighbor's Int
GigabitEthernet3/42	es1-7606-c3	172.31.24.255	GigabitEthernet3/42
GigabitEthernet3/40	es1-7606-sd1	172.31.24.255	GigabitEthernet3/40
GigabitEthernet3/14	es1-7606-c4	172.31.24.255	GigabitEthernet3/14
GigabitEthernet3/38	es1-7606-c1	172.31.24.255	GigabitEthernet3/38
GigabitEthernet3/13	es1-7606-sd2	172.31.24.255	GigabitEthernet3/13
GigabitEthernet3/1	es1-7206-w1	172.31.24.255	GigabitEthernet0/1

Local Int	Local IP	PIM Mode	DR
GigabitEthernet3/42	172.31.24.255	sparse	es1-7606-c3 172.31.24.255
Loopback1	172.31.24.255	sparse	es1-7606-c2 172.31.24.255
GigabitEthernet3/13	172.31.24.255	sparse	es1-7606-c2 172.31.24.255

The topology display contains these fields and buttons:

Field or Button	Description
Username	Enter your username.
Password	Enter your password.
Show Command	Enter any show commands on the router.
Show	Click <b>Show</b> to run the selected command.
PIM Neighbors	PIM neighbor name.



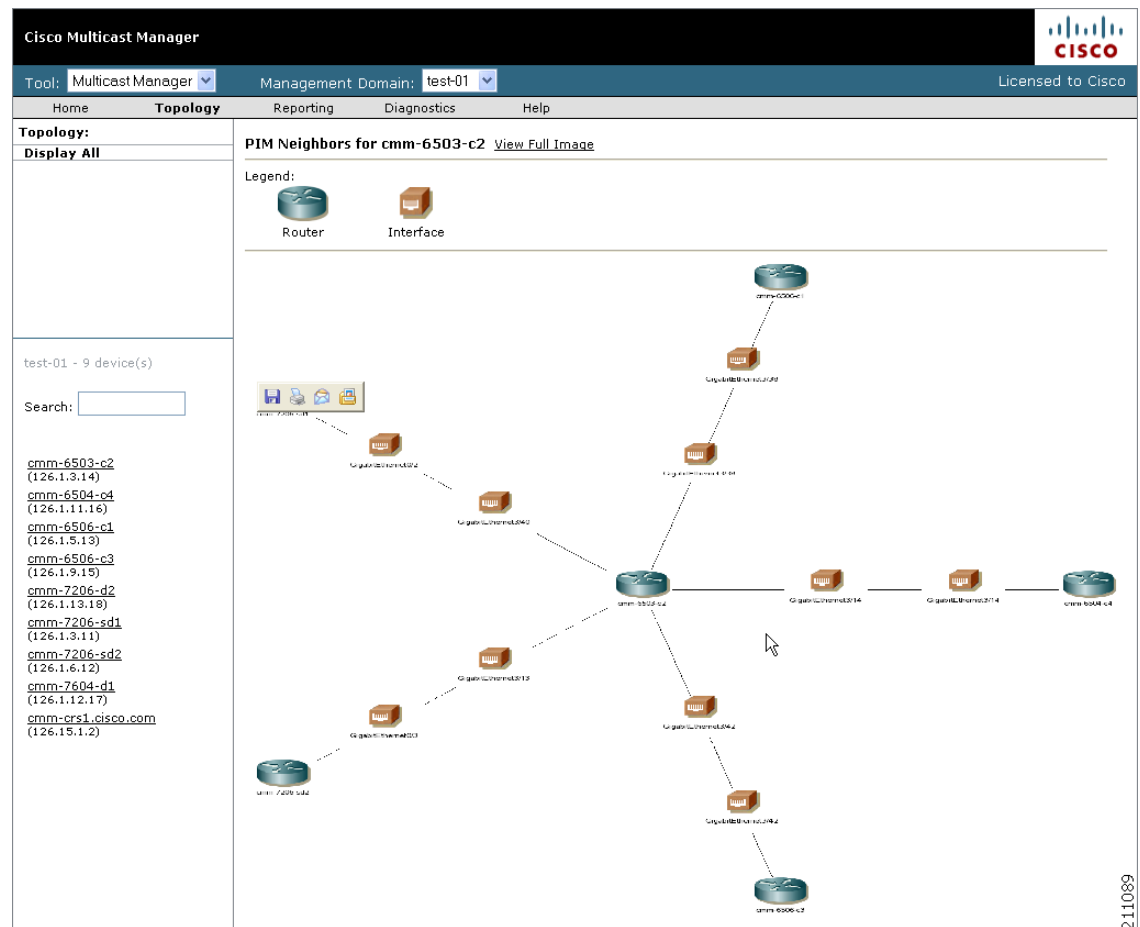
**Note**

For details on the columns within this table, see the descriptions for the Topology Display All window.

- Step 5** To see a topological display of the routers, select **PIM Neighbors**.

A topological display appears, as shown in [Figure 3-4](#).

**Figure 3-4** PIM Neighbors



The topology display shows:

- Each router and its local interfaces.
- The interfaces on each of the router's PIM neighbors.
- The names of the routers and their PIM neighbors.

## Viewing Topology Including Probe Information

You can view topology information that shows probes and probe status from the Cisco Multicast Manager home page and from the Diagnostics tool.

The multicast diagnostic information shown on the home page includes:

- The source, group, and channel association that you are troubleshooting.
- A graphical topology tree that clearly shows all of the routers that form the tree, and their input and output interfaces, along with IP addresses and interface descriptions

- The packets per sampling period being received at each point in the tree (sampling periods range from 5 seconds to 30 and are configurable).
- The packet input, output and discard errors being received at each interface.
- A text representation of the tree, which is invaluable when troubleshooting large multicast trees.

**Note**

For detailed information on using the Diagnostic tool to troubleshoot video multicast flows and viewing a topology tree that shows the multicast topology, see [Video Probe Status, page 4-15](#).

## Managing Reports

To start managing reports, within the **Multicast Manager** tool, click on **Reporting**.

Within Reporting, you can view:

- A record of the latest SNMP traps sent.
- Historical graphs or trends.
- Routers in the database IOS versions.
- Video probe reports.
- Reports on VPN routing/forwarding instances (VRFs).

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### Reporting Options

[Latest Events, page 3-7](#)

[RP Polling Report, page 3-7](#)

[RP Group Threshold Report, page 3-8](#)

[RPF Failures, page 3-9](#)

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[SSG Report, page 3-10](#)

[Tree Report, page 3-10](#)

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[Multicast Bandwidth Report, page 3-12](#)

[Video Probe Report, page 3-12](#)

[VRF Count Report, page 3-14](#)

[VRF Interface Count Report, page 3-14](#)

[MDT Default Report, page 3-15](#)

[MDT Source Report, page 3-15](#)

[Historical Graphs, page 3-15](#)

[Display All IOS Versions, page 3-17](#)

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**Note**

The information shown for each type of report, with the exception of Historical Graphs, spans only the previous 24 hours. There may be more information available in the log file. However, it is recommended that the events.log file be rotated every 24 to 48 hours, depending on event activity.

## Latest Events

Using the **Latest Events** page, you can set a configurable amount of the latest events generated by the CMM. Clicking **Report** lists the traps in time order.

Figure 3-5 shows the Latest Events page.

**Figure 3-5 Latest Events**

The screenshot shows the Cisco Multicast Manager 2.4(0.0.9) interface. The top navigation bar includes 'Tool: Multicast Manager', 'Management Domain: VOS-DEMO', and 'Licensed to edge-geeks-east'. The main content area is titled 'Reporting' and contains a 'Latest Events' section. On the left, there is a 'Reporting:' menu with options like 'Latest Events', 'RP Polling Report', 'RP Group Threshold Report', etc. Below the menu is a search bar and a list of devices under 'VOS-DEMO - 9 device(s)'. The 'Latest Events' section has a 'Max Events' input field set to 100 and a 'Report' button. Below this is a table of events:

Date	Type	Device	Details
Tue May 15 14:30:00 2007	Video Flow DF High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 247.033, Threshold: 50
Tue May 15 14:30:00 2007	Video Flow MLR High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 1146, Threshold: 10
Tue May 15 14:29:01 2007	Video Flow DF High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 244.23, Threshold: 50
Tue May 15 14:29:01 2007	Video Flow MLR High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 1156, Threshold: 10
Tue May 15 14:28:01 2007	Video Flow DF High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 247.029, Threshold: 50
Tue May 15 14:28:01 2007	Video Flow MLR High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 1151, Threshold: 10
Tue May 15 14:27:00 2007	Video Flow DF High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 244.226, Threshold: 50
Tue May 15 14:27:00 2007	Video Flow MLR High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 1146, Threshold: 10
Tue May 15 14:26:00 2007	Video Flow DF High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 247.031, Threshold: 50
Tue May 15 14:26:00 2007	Video Flow MLR High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 1152, Threshold: 10
Tue May 15 14:25:44 2007	Health Check Failed		Health Check: Boston-PBS
Tue May 15 14:25:00 2007	Video Flow DF High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 244.226, Threshold: 50
Tue May 15 14:25:00 2007	Video Flow MLR High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 1149, Threshold: 10
Tue May 15 14:24:23 2007	Health Check Failed		Health Check: Boston-Post-AZ
Tue May 15 14:24:00 2007	Video Flow DF High	IQ-EDGE-H1-G1-16	Group: 231.10.0.1, Source: 40.15.15.2, Value: 247.031, Threshold: 50

## RP Polling Report

Using the **RP Polling Report**, you can monitor:

- All leaves and joins for the selected RP (if the Enable RP Add/Delete Traps option is selected, see the “RP Polling” section on page 2-26).
- If the selected RP becomes unavailable.
- Any rogue source or group that joins the selected RP.

To generate an RP Polling report:

- Step 1** Select the **Multicast Manager** tool.  
On the Reporting menu, select **RP Polling Report**.

The RP Polling Report page opens.

- Step 2** On the RP Polling Report page:
- Select an RP from the list.
  - Specify the maximum number of events to display.

- Step 3** Click **Report**.

An RP Polling Report appears, as shown in [Figure 3-6](#). The report contains any events that have occurred in the last 24 hours.

**Figure 3-6** RP Polling Report

Date	Router	Source	Group	State
Thu Apr 26 16:58:00 2007	cmm-7206-sd1	126.0.1.11	239.132.0.0	removed
Thu Apr 26 16:56:00 2007	cmm-7206-sd1	126.0.1.18	239.232.0.0	added
Thu Apr 26 16:56:00 2007	cmm-7206-sd1	126.0.1.2	239.232.0.0	added
Thu Apr 26 16:56:00 2007	cmm-7206-sd1	126.0.1.11	239.232.0.0	added
Thu Apr 26 16:29:00 2007	cmm-7206-sd1	126.0.1.11	239.232.0.0	removed
Thu Apr 26 16:28:00 2007	cmm-7206-sd1	126.0.1.18	239.232.0.0	removed
Thu Apr 26 16:28:00 2007	cmm-7206-sd1	126.0.1.12	239.232.0.0	removed
Thu Apr 26 16:25:00 2007	cmm-7206-sd1	126.0.1.11	239.132.0.0	added
Thu Apr 26 14:34:00 2007	cmm-7206-sd1	126.0.1.18	239.232.0.0	added
Thu Apr 26 14:34:00 2007	cmm-7206-sd1	126.0.1.12	239.232.0.0	added
Thu Apr 26 14:34:00 2007	cmm-7206-sd1	126.0.1.11	239.232.0.0	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.9	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.8	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.7	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.6	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.5	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.4	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.3	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.2	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.44	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.43	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.42	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.41	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.40	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.39	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.38	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.37	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.36	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.35	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.34	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.1	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.33	239.254.4.0	added
Thu Apr 26 11:34:00 2007	cmm-7206-sd1	126.32.2.43	239.254.2.2	added

- Step 4** To see detailed information about a source, click on an IP address in the **Source** column.

## RP Group Threshold Report

Using the **RP Group Threshold Report**, you can monitor a list of RPs that have exceeded their active number of groups limit.



To generate an RP Group Threshold report:

- 
- Step 1** Select the **Multicast Manager** tool.
- Step 2** On the Reporting menu, select **RP Group Threshold Report**.  
The RP Group Threshold Report page opens.
- Step 3** On the RP Polling Report page:
- Select an RP from the list.
  - You can specify the maximum number of events to display.
- Step 4** Click **Report**.  
An RP Group Threshold Report appears.
- Step 5** The report contains any events that have occurred in the last 24 hours.
- 

## RPF Failures

Using the **RPF Failures Report**, you can monitor all routers that are experiencing RPF failures above the configured threshold for the configured sources and groups.

To generate an RPF Failures report:

- 
- Step 1** Select the **Multicast Manager** tool.
- Step 2** On the Reporting menu, select **RPF Failures**.  
The RPF Failure Report page opens.
- Step 3** On the RPF Failure Report page:
- Select an RP from the list.
  - You can specify the maximum number of events to display.
- Step 4** Click **Report**.  
The report contains any events that have occurred in the last 24 hours.
- 

## Group Gone Report

The **Group Gone Report** is currently unsupported. Please refer to the **S,G Polling Report** (see [S,G Threshold Report](#), page 3-10).

## S,G Threshold Report

Using the **S,G Threshold Report**, you can monitor every source and group that has exceeded its configured threshold.

To generate an S,G Threshold report:

- 
- Step 1** Select a group from the list.
  - Step 2** You can specify the maximum number of events to display.
  - Step 3** Click **Report**. The report contains any events that have occurred in the last 24 hours, and shows pps and bps.
- 

## Layer 2 PPS Threshold Report

Using the **Layer 2 PPS Threshold Report**, you can monitor all Layer 2 ports that have exceeded their configured thresholds.

To generate a Layer 2 PPS Threshold Report:

- 
- Step 1** Select a switch from the list.
  - Step 2** Select a port from the list.
  - Step 3** Click **Select**. The report contains any events that have occurred in the last 24 hours.
- 



**Note**

The report is for inbound and outbound traffic on the port.

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## SSG Report

Using the **SSG Report**, you can display information about groups that have more than one sender.

To generate an SSG Report:

- 
- Step 1** Enter the multicast group address.
  - Step 2** Click **Report**. The report contains any events that have occurred in the last 24 hours. The count indicates the number of sources sending to the group.
- 

## Tree Report

Using the **Multicast Tree Report**, you can draw and save multicast trees (called baselines). You can then set up the CMM to draw trees that have been saved in the background, and report any changes. (Only changes to Layer 3 devices are reported.)

**Note**

The drawing and saving of trees is covered in [Show All Groups, page 4-2](#).

If a multicast tree you are monitoring changes, a trap is generated. You can then view the baseline and the changed tree. Changes are highlighted in the text and also in the drawing.

To generate a Multicast Tree Report:

- Step 1** Select a baseline (multicast tree) from the list.
- Step 2** You can specify the maximum number of events to display.
- Step 3** Click **Select**. The report contains any events that have occurred in the last 24 hours.

Selecting “trchanged” in the third column in the report will graphically show the baseline, along with the changed tree. Changes to the tree are highlighted in the table at the top as shown in the figure. The baseline and the current tree are also shown graphically.

**Figure 3-7** Tree Report Page with Changed Tree Data

Router	Forwarding Int	Neighbor	Neighbor IP	Neighbor Int
P2-ntv-2	GigabitEthernet1/1	P2-7206-2	10.0.0.1	GigabitEthernet3/0
P2-ntv-2	Port-channel204	P2-ntv-4	10.0.0.1	Port-channel204
P2-ntv-2	Port-channel205	P2-ntv-3	10.0.0.1	Port-channel205
P2-7206-2	SRP1/0	P3-7206-2		SRP1/0
P3-7206-2	GigabitEthernet3/0	P3-msfc-2		Vlan2
P3-7206-2	GigabitEthernet4/0	P3-msfc-1		Vlan3
P3-msfc-2	Vlan4	P3-msfc-4		Vlan4
P3-msfc-2	Vlan5	P3-msfc-3		Vlan5
P2-ntv-1	GigabitEthernet1/1			
P2-ntv-1	GigabitEthernet1/2			
P2-ntv-1	Port-channel204			
P2-ntv-1	Port-channel205			
P2-ntv-1	Vlan210			
P2-ntv-2	GigabitEthernet1/2			
P2-ntv-2	Loopback0			
P2-ntv-2	Loopback0			
P2-ntv-3	Loopback0			
P2-ntv-3	Loopback1			
P2-ntv-4	FastEthernet3/1			
P2-ntv-4	Loopback0			
P2-ntv-4	Loopback1			
P2-ntv-4	Vlan2			
P2-ntv-4	Vlan20			
P3-msfc-1	Vlan5			
P3-msfc-4	Loopback0			
P3-msfc-4	Loopback1			
P3-msfc-4	Vlan30			
P3-msfc-3	Loopback0			
P3-msfc-3	Loopback1			
P3-msfc-3	Vlan4			
P2-ntv-2	GigabitEthernet1/2	P2-7206-1		GigabitEthernet4/0
P2-7206-1	SRP1/0	P3-7206-1		SRP1/0
P2-7206-2	SRP1/0			
P3-7206-2	SRP1/0			
P3-7206-2	GigabitEthernet3/0			

## S,G Delta Report

Using the **Multicast S,G Delta Report**, you can view information about PPS rate deviation on multicast trees.

To generate a Multicast S,G Delta Report:

- 
- Step 1** Select a baseline (multicast tree) from the list.
  - Step 2** You can specify the maximum number of events to display.
  - Step 3** Click **Select**. The report contains any events that have occurred in the last 24 hours.
- 

## Multicast Bandwidth Report

To generate a report for a router interface that has exceeded its multicast bandwidth thresholds:

- 
- Step 1** Select the device.
  - Step 2** Select the port.
  - Step 3** Select the maximum number of events.
  - Step 4** Click **Report**.
- 

## Video Probe Report

Each time CMM interrogates a probe and finds an exception it generates a video probe report and stores it on the hard drive. Using the Video Probe Report, you can view a detailed listing of video probe reports. Each report provides the following information from a video probe:

- **VOS flow MRL high**—The media loss rate (MLR) over the configured threshold
- **VOS delay factor high**—The delay factor (DF) over the configured threshold

To view video probe reports:

- 
- Step 1** Select **Multicast Manager > Reporting**.
  - Step 2** Click **Video Probe Report**.

The Video Probe Polling Report page appears, as shown in [Figure 3-8](#).

**Figure 3-8** Specifying Parameters for the Video Probe Report

The screenshot shows the Cisco Multicast Manager interface. At the top, the title is "Cisco Multicast Manager" with the Cisco logo. Below the title, there are navigation tabs: "Home", "Topology", "Reporting" (selected), "Diagnostics", and "Help". The "Reporting" tab is active, and the "Video Probe Report" is selected from a list on the left. The main content area shows the "Video Probe Polling Report" configuration. It includes a "Video Probe" dropdown menu set to "CMM-G1T-VP1", a "Max Events" input field set to "1000", and a "Report" button. Below the configuration, it says "Finished". On the right side of the page, there is a vertical text "211294".

- Step 3** From the pull-down list in the **Video Probe** field, select a probe.
- Step 4** Enter the number of events you would like to see.
- Step 5** Click **Report**.

A report for the specified probe appears. Figure 3-9 shows a sample report.

**Figure 3-9 Video Probe Report**

The screenshot shows the Cisco Multicast Manager interface. The top navigation bar includes 'Home', 'Topology', 'Reporting', 'Diagnostics', and 'Help'. The 'Reporting' menu is open, showing a list of reports including 'Video Probe Report'. The main content area displays a 'Video Probe Polling Report for CMM-G1T-VP1' with the following data:

Date	Probe	Type	Value	Threshold
Wed May 9 12:18:02 2007	CMM-G1T-VP1	Video Flow DF High	1144.6	50
Wed May 9 12:18:02 2007	CMM-G1T-VP1	Video Flow MLR High	25	0

On the left side of the report, there is a search box and a list of devices under the heading 'test-01 - 9 device(s)'. One device is listed: 'cmm-6503-c2 (126.1.3.14)'. The Cisco logo and 'Licensed to Cisco' are visible in the top right corner. A vertical ID number '211296' is on the far right edge.

## VRF Count Report

To generate a VRF Count Report:

- 
- Step 1** On the Reporting menu, select **VRF Count Report**.  
The VRF Count Report page appears.
  - Step 2** On the VRF Count Report page, enter the parameters for the report.  
A VRF Count Report appears.
- 

## VRF Interface Count Report

To generate a VRF Interface Count Report:

- 
- Step 1** On the Reporting menu, select **VRF Interface Count Report**.  
The VRF Interface Count Report page appears.
  - Step 2** On the VRF Interface Count Report page, enter the parameters for the report.  
The VRF Interface Count report appears.
-

## MDT Default Report

To generate a MDT Default Report:

- 
- Step 1** On the Reporting menu, select **MDT Default Report**.  
The MDT Default Report page appears.
- Step 2** On the MDT Default Report page, enter the parameters for the report.  
A MDT Default Report appears.
- 

## MDT Source Report

To generate an MDT Source Report:

- 
- Step 1** On the Reporting menu, select MDT Source Report.  
The MDT Source Report page appears.
- Step 2** On the MDT Source Report page, enter the parameters for the report.  
An MDT Source Report appears.
- 

## Historical Graphs

Using **Historical Graphs**, you can view historical data in a graph format. Historical data is collected when you start to monitor any of the following:

- Source and group activity in a router.
- Multicast packets inbound or outbound of a Layer 2 port.
- Source and group packet deviations on baseline multicast trees.

To view Historical Graphs:

- 
- Step 1** Select a **Graph Type** from the list:
- SG Delta PPS
  - SG PPS
  - SG BPS
  - Switch Port PPS

**Step 2** Select a **Time Range**:

- User Specified
- Hour
- Day
- Week
- Month

**Step 3** Select a **Start** and **End** range.

**Step 4** A list of available reports appears. Highlight the appropriate report(s) and click **Display**. You can select up to 3 reports to display on the graph. Data stored for trending purposes is kept for up to 18 months.



**Note**

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Data must be collected to generate a report. If you have selected the correct Graph Type, and you do not see any entries, ensure that data is being collected (see [Top Talkers, page 4-14](#)).

---



Figure 3-10 Historical Graphs

The screenshot shows the Cisco Multicast Manager 2.4(0.0.9) interface. The top navigation bar includes 'Home', 'Topology', 'Reporting' (selected), 'Diagnostics', and 'Help'. The 'Reporting' section on the left lists various reports, with 'Historical Graphs' highlighted. Below this, it shows 'VOS-DEMO - 9 device(s)' and a search box. The main area is titled 'Historical Graphs' and contains the following controls:

- Graph Type:** SG PPS
- Time Range:** Hour
- Start:** Feb 3 2007 23:00
- End:** May 9 2007 00:00
- Search List:** (empty text box)
- Selected Item:** S,G PPS (Select 3 Max)
- Device List:** A scrollable list of IP addresses and VOS names, including:
  - 224.0.1.40:0.0.0.0:isp-7600-B1.VOS
  - 224.0.1.40:0.0.0.0:isp-7600-j1.VOS
  - 231.1.0.100:0.0.0.0:isp-7600-B1.VOS
  - 231.1.0.100:0.0.0.0:isp-7600-j1.VOS
  - 231.1.0.100:40.15.15.2:isp-7600-B1.VOS
  - 231.1.0.100:40.15.15.2:isp-7600-j1.VOS
  - 231.1.0.101:0.0.0.0:isp-7600-B1.VOS
  - 231.1.0.101:0.0.0.0:isp-7600-j1.VOS
  - 231.1.0.101:40.15.15.2:isp-7600-B1.VOS
  - 231.1.0.101:40.15.15.2:isp-7600-j1.VOS
  - 231.1.0.102:0.0.0.0:isp-7600-B1.VOS
  - 231.1.0.102:0.0.0.0:isp-7600-j1.VOS
  - 231.1.0.102:40.15.15.2:isp-7600-B1.VOS
  - 231.1.0.102:40.15.15.2:isp-7600-j1.VOS
  - 231.1.0.103:0.0.0.0:isp-7600-B1.VOS
- Display:** A button to generate the graph.

The graph at the bottom is titled 'S,G PPS:Source:0.0.0.0 Group:231.1.0.44'. The y-axis is labeled 'PPS' and ranges from 0.0 to 1.0. The x-axis shows weeks from Week 07 to Week 17. A legend indicates that the red line represents 'isp-7600-B1.VOS'. The graph shows a flat line at 0.0 PPS throughout the period.

211277

## Display All IOS Versions

Using the IOS Version Info page, you can view the IOS version of all discovered routers in the current domain. You can sort the table by device, IP address, IOS version, or model by selecting the corresponding column heading.

Figure 3-11 shows a sample IOS Versions Report.

**Figure 3-11 IOS Version Info**

Cisco Multicast Manager 2.4(0.0.9)

Tool: Multicast Manager Management Domain: VOS-DEMO Licensed to edge-geeks-east

Home Topology **Reporting** Diagnostics Help

**Reporting:**

- Latest Events
- RP Polling Report
- RP Group Threshold Report
- RPF Failures
- Group Gone Report
- S,G Threshold Report
- Layer 2 PPS Threshold Report
- SSG Report
- Tree Report
- S,G Delta Report
- Multicast Bandwidth Report
- Video Probe Report
- VRF Count Report
- VRF Interface Count Report
- MDT Default Report
- MDT Source Report
- Historical Graphs
- Display All IOS Versions**

**IOS Version Info**

Report Generated: Wed May 9 00:14:45 2007  
9 Devices

DEVICE	IP	VERSION	MODEL
isp-7600-B1.VOS	43.10.0.1	Version 12.2(33)SRB	cat6509
isp-7600-H1.VOS	40.44.44.2	Version 12.2(33)SRB	cat6509
isp-7600-H3.VOS	30.3.3.2	Version 12.2(33)SRB	cisco7609
isp-7600-g1.VOS	30.7.0.2	Version 12.2(33)SRB	cisco7609
isp-7600-g2.VOS	30.3.10.1	Version 12.2(33)SRB	cat6506
isp-7600-g3.VOS	40.50.11.1	Version 12.2(33)SRB	cat6509
isp-7600-h2.VOS	30.7.10.1	Version 12.2(33)SRB	cisco7609
isp-7600-j1.VOS	8.0.0.1	Version 12.2(33)SRB	cat6506
isp-7600-j3.VOS	44.20.20.1	Version 12.2(33)SRB	cat6509

VOS-DEMO - 9 device(s)

Search:

[isp-7600-B1.VOS](#)  
(43.10.0.1)

[isp-7600-H1.VOS](#)  
(40.44.44.2)

211279