

Cisco Multicast Manager 2.4

Product Overview

Cisco® Multicast Manager is a web-based network management application that simplifies the monitoring and troubleshooting of multicast networks. Cisco Multicast Manager is applicable to enterprise customers that employ multicast for financial market data, to multiple system operators (MSOs) that utilize multicast to transport video over IP, or to service providers that need to manage their Multicast VPN (MVPN) environment.

Cisco Multicast Manager includes:

- Automated multicast discovery
- Proactive polling engine
- Real-time multicast diagnostics
- Alerting and reporting

Applications

Figure 1 shows how Cisco Multicast Manager can be used to trace a multicast group. In this example, multicast is being used to transport video. The trace is presented in tabular and graphical format. The table can update dynamically showing the packets per second (pps) rate, output errors, and discards for each interface along the tree. Cisco Multicast Manager also includes support for video probes that may be deployed for monitoring video quality. The embedded address management database will show which channels are affected if there is a problem with a specific multicast group.

Figure 1. Using Cisco Multicast Manager to Trace a Multicast Group

Tracing multicast group 231.10.0.1 (Boston PBS SPTS,Boston Raw SPTS,100) from source 40.15.15.2

Router	PPS	Forwarding Int	Out Errors/Sec	Out Discards/Sec	Neighbor	Neighbor IP	Neighbor Int	In Errors/Sec	In Discards/Sec
isp-7600-H3.VOS 0	Gi7/8		0	0	isp-7600-g2.VOS	30.3.3.1	Gi6/2	0	0
isp-7600-g2.VOS 0	Vi607		0	0	isp-7600-B1.VOS	30.3.10.2	Vi607	0	0
isp-7600-B1.VOS 0	Te8/2		0	0	isp-7600-J1.VOS	44.11.11.2	Te1/1	0	0
isp-7600-J1.VOS 0	Te4/4		0	0	isp-7600-J3.VOS	44.20.20.1	Te9/0/0	0	0
isp-7600-J3.VOS 0	Gi1/1/0		0	0	isp-7600-H1.VOS	40.44.44.2	Gi6/8	0	0
isp-7600-J1.VOS 0	GigabitEthernet5/1(Link to Probe IQ-MID-J1-G5-1)		0	0					
isp-7600-H1.VOS 0	GigabitEthernet1/16(Link to Probe IQ-EDGE-H1-G1-16)		0	0					

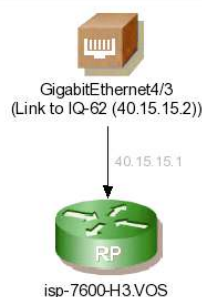
Probe	Router	Interface	Source	Group	Status	DF	MLR	MLT15	MLT24
IQ-ME-H3-G4-1	isp-7600-H3.VOS	Static Join on H3 G4/1	40.15.15.2	231.10.0.1		2.835	0	0	0
IQ-MID-B1-G2-1	isp-7600-B1.VOS	Span on B1 G2/1	40.15.15.2	231.10.0.1		2.818	0	0	0
IQ-MID-J1-G5-1	isp-7600-J1.VOS	Static Join on J1 G5/1	40.15.15.2	231.10.0.1		2.828	0	0	0
IQ-EDGE-H1-G1-16	isp-7600-H1.VOS	Static Join on H1 G1/16	40.15.15.2	231.10.0.1		247.033	1153	66902	18435327

Channel	Related Groups	Channel Name	Short Name	Codec Type	Screen Format	Service Type	MuxID
2	231.30.0.1 231.20.0.1	WGBH	PBS Boston	MPEG-2	4:3	SDV	100

Trace File: Counter Update Interval:

Legend:

Rendezvous Point
 Router
 Interface
 Video Probe



Features and Benefits

In addition to the features shown in Table 1, Cisco Multicast Manager 2.4 now has support for multicast VPNs and RFC 4445 video probes. The MVPN feature provides monitoring and alerting of changes detected in the multicast Virtual Route Forwarding (VRF) tables. The real-time diagnostics show VRF to multicast distribution tree (MDT) mapping details along with MDT data ranges and thresholds. Support for video probes now allows Cisco Multicast Manager to report video quality issues for specific multicast groups while highlighting the video channels that those groups support.

Table 1. Features and Benefits

Feature	Benefit
Automated multicast discovery	Discovers complete multicast topology from a single seed device, along with the MVPN provider and provider edge devices and VRF tables they support
Proactive polling engine	Highly scalable polling engine to detect multicast anomalies before they become critical problems
Alerts and reports	Any exceptions detected by the polling engine are sent as Simple Network Management Protocol (SNMP) traps and logged for reporting purposes. Reports are available for Rendezvous Points (RPs), Source,Group (S,G) pps rates, tree changes, interface bandwidth, Layer 2 port pps rates
Show all groups	Provides complete list of active S,Gs
IGMP diagnostics	Displays all devices that have seen an Internet Group Management Protocol (IGMP) join for a particular group
MSDP status	Shows the status of all Multicast Source Discovery Protocol (MSDP)-enabled devices and their peers, including Source-Active cache information
Layer 2 diagnostics	Shows which multicast groups are being forwarded on a particular Layer 2 switch port

Health check	Provides on-demand checking of forwarding trees, RPs, and existence of specific S,Gs can also be scheduled to run automatically
6500/7600 troubleshooting	Provides the equivalent of an IOS command line interface "show tech" for multicast, along with LTL checking and pps rates taken from the Route Processor, Switch Processor, or Distributed Forwarding Card. Output can be e-mailed directly to the Technical Assistance Center for further analysis.

System Requirements

Table 2 lists the system requirements for Cisco Multicast Manager.

Table 2. System Requirements

Component	Description
Disk space	2 GB or more free space for Cisco Multicast Manager application and data
Hardware	<p>Linux</p> <ul style="list-style-type: none"> Dual AMD Opteron Processor 250 2.4 GHz 64 Bit for Large Enterprise (more than 500 devices) Dual 2.8 GHz Intel Pentium IV or dual 2.8 GHz Intel Xeon processor for Large Enterprise (more than 500 devices) 2.8 GHz Intel Pentium IV or 2.8 GHz Intel Xeon processor <p>Solaris</p> <ul style="list-style-type: none"> Sun Fire v440 Up to four 1.593-GHz UltraSPARC IIIi processors for Large Enterprise (more than 500 devices) Sun Fire v240 One 1.34 GHz or two 1.5 GHz UltraSPARC processors
Memory	<ul style="list-style-type: none"> 2 GB 4 GB for Large Enterprise (more than 500 devices)
Software	<p>Linux</p> <ul style="list-style-type: none"> Redhat Enterprise Linux ES/AS 3 Redhat Enterprise Linux ES/AS 4 <p>Solaris</p> <ul style="list-style-type: none"> Solaris 8 Solaris 9 Solaris 10 <p>Note: Solaris x86 is not supported</p>
Browser	<ul style="list-style-type: none"> Firefox 1.5 or greater Internet Explorer 6 Netscape 7.0 Mozilla 1.7 Safari 2.0

Ordering Information

Table 3 lists ordering information. To place an order, visit the Cisco Ordering Home Page. To download software, visit the Cisco Software Center.

Table 3. Ordering Information

Product Name	Part Number
Cisco Multicast Manager 2.4 Less than 200 devices and 100 sources	CMM-2.4-LIN-SM
Cisco Multicast Manager 2.4 Less than 200 devices and 100 sources	CMM-2.4-SOL-SM
Cisco Multicast Manager 2.4 Less than 500 devices and 200 sources	CMM-2.4-LIN-MD
Cisco Multicast Manager 2.4 Less than 500 devices and 200 sources	CMM-2.4-SOL-MD
Cisco Multicast Manager 2.4 LIN Unlimited devices and sources	CMM-2.4-LIN-UL
Cisco Multicast Manager 2.4 SOL Unlimited devices and sources	CMM-2.4-SOL-UL
Cisco Multicast Manager 2.4 Optional VOS Feature	CMM-2.4-VOS-FS
Cisco Multicast Manager 2.4 Optional MVPN Feature	CMM-2.4-MVPN-FS
Cisco Multicast Manager 2.4 LIN Upgrade from SM to MD	CMM-2.4-LIN-UPSMMD

Cisco Multicast Manager 2.4 SOL Upgrade from SM to MD	CMM-2.4-SOL-UPSMMD
Cisco Multicast Manager 2.4 LIN Upgrade from MD to UL	CMM-2.4-LIN-UPMDUL
Cisco Multicast Manager 2.4 SOL Upgrade from MD to UL	CMM-2.4-SOL-UPMDUL

Service and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners provide a broad portfolio of end-to-end services and support that can help increase your network's business value and return on investment. This approach defines the minimum set of activities needed, by technology and by network complexity, to help you successfully deploy and operate Cisco technologies and optimize their performance throughout the lifecycle of your network.

For More Information

For more information about Cisco Multicast Manager, visit <http://www.cisco.com/go/cmm>, contact your local account representative, or send an e-mail to ask-cmm-pm@cisco.com.



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