



CHAPTER 4

Troubleshooting with the Cisco Video Assurance Management Solution

Troubleshooting with the Cisco Video Assurance Management Solution (Cisco VAMS) involves use of:

- Cisco ANA for basic troubleshooting
- Cisco Multicast Manager for advanced troubleshooting

This chapter contains:

- [Troubleshooting with Cisco ANA, page 4-2](#)
- [Advanced Troubleshooting with Cisco Multicast Manager, page 4-4](#)
- [Monitoring and Troubleshooting in the Wireline Network, page 4-5](#)
- [Monitoring and Troubleshooting in the Cable Network, page 4-5](#)

Troubleshooting with Cisco ANA

Troubleshooting with Cisco ANA requires an understanding of the Cisco ANA fault-management system. You should also understand how to use ANA NetworkVision and ANA EventVision.

This section contains:

- [Fault Management, page 4-2](#)
- [ANA NetworkVision, page 4-3](#)
- [ANA EventVision, page 4-3](#)

Fault Management

[Table 4-1](#) highlights important aspects of the fault management system in Cisco ANA.

Table 4-1 *Cisco ANA Fault Management*

Troubleshooting Area	Description and Reference
Fault detection and isolation	Describes: • How the various VNEs use reachability to check connectivity with the NEs. • Basic alarm sources that indicate problems in the network. • What happens when a VNE with associated open alarms shuts down. • The integrity service tests that run on the gateway and the units. http://www.cisco.com/en/US/docs/net_mgmt/active_network_abstraction/3.6_sp2/fault/user/guide/chp1.html
Causality correlation and root cause analysis	Describes: • Enabling or disabling port-down, port-up, link-down and link-up alarms. • The root-cause correlation concept. • The root-cause alarm and weights concepts. • Correlation by flow and correlation by key. http://www.cisco.com/en/US/docs/net_mgmt/active_network_abstraction/3.6_sp2/fault/user/guide/chp2.html
Advanced correlation scenarios	Describes alarms that use advanced correlation logic on top of the root cause analysis flow. http://www.cisco.com/en/US/docs/net_mgmt/active_network_abstraction/3.6_sp2/fault/user/guide/chp4.html

ANA NetworkVision

Network administrators use Cisco ANA NetworkVision to manage, fulfill, plan, and assure the integrity of network resources. Table 4-2 lists important aspects of using Cisco ANA NetworkVision for troubleshooting.

Table 4-2 Cisco ANA NetworkVision

Troubleshooting Area	Description and Reference
Working with ANA tickets	Cisco ANA NetworkVision: - Correlates alarms, and enables you to view tickets and tickets properties, including correlated alarms, active alarms, and alarm history. - Describes ticket management and the different ways in which a ticket is displayed in the ticket pane, depending on the status or severity of the alarm. For detailed information about working with tickets, see the <i>Cisco Active Network Abstraction NetworkVision User Guide 3.6 Service Pack 1</i>: http://www.cisco.com/en/US/docs/net_mgmt/active_network_abstraction/3.6_sp2/networkvision/user/guide/8tickets.html
Working with ANA PathTracer	You use the Cisco ANA PathTracer to view a network path between two network objects in packet-switched networks such as Ethernet and IP. For detailed information about working with the ANA PathTracer, see the <i>Cisco Active Network Abstraction NetworkVision User Guide 3.6 Service Pack 1</i>: http://www.cisco.com/en/US/docs/net_mgmt/active_network_abstraction/3.6_sp2/networkvision/user/guide/9ptracer.html

ANA EventVision

You use Cisco ANA EventVision to view, filter, and display the properties of specific events. Table 4-3 lists important aspects of using Cisco ANA EventVision for troubleshooting.

Table 4-3 Cisco ANA EventVision

Troubleshooting Area	Description and Reference
Viewing events	Events appear in different event categories in the ANA EventVision. For detailed information about displaying events, see the <i>Cisco Active Network Abstraction EventVision User Guide 3.6 Service Pack 1</i>: http://www.cisco.com/en/US/docs/net_mgmt/active_network_abstraction/3.6_sp2/eventvision/user/guide/3viewevn.html
Working with EventVision	For detailed information about working with EventVision, see the <i>Cisco Active Network Abstraction EventVision User Guide 3.6 Service Pack 1</i>: http://www.cisco.com/en/US/docs/net_mgmt/active_network_abstraction/3.6_sp2/eventvision/user/guide/4workev.html

Advanced Troubleshooting with Cisco Multicast Manager

The Cisco Multicast Manager provides a diagnostics tool that gives you a global view and a router-specific view of your network. Table 4-4 lists important areas of the Cisco Multicast Manager that you can use to troubleshoot the Cisco VAMS:

Table 4-4 *Cisco Multicast Manager*

Troubleshooting Area	Task and Reference
Viewing network status	View the status of all devices in the current multicast domain. See: http://www.cisco.com/en/US/products/ps6337/products_user_guide_chapter09186a0080834d83.html#wp1130975
Viewing RP status	View all routers in the database, their RPs, and the active groups. See: http://www.cisco.com/en/US/products/ps6337/products_user_guide_chapter09186a0080834d83.html#wp1130983
IGMP diagnostics	View the interfaces that have joined a particular group. See: http://www.cisco.com/en/US/products/ps6337/products_user_guide_chapter09186a0080834d83.html#wp1131002
Layer 2 switches	View Layer 2 multicast information and host IPs. The table that is generated, shows, from a Layer 2 perspective, which multicast groups are being forwarded out which interfaces. See: http://www.cisco.com/en/US/products/ps6337/products_user_guide_chapter09186a0080834d83.html#wp1131025
Cisco 6500/7600 troubleshooting	Gather accurate packet-forwarding statistics and other information. See: http://www.cisco.com/en/US/products/ps6337/products_user_guide_chapter09186a0080834d83.html#wp1131042
Top-20 video flows	View the top-20 video flows. The top-20 video flows are dynamically updated at every polling interval. See: http://www.cisco.com/en/US/products/ps6337/products_user_guide_chapter09186a0080834d83.html#wp1131050
Video probe status ¹	View diagnostic information about video probes and the flows that they are monitoring. See: http://www.cisco.com/en/US/products/ps6337/products_user_guide_chapter09186a0080834d83.html#wp1221364

1. Cisco Multicast Manager 2.4 supports only the Ineoquest video probe.

Monitoring and Troubleshooting in the Wireline Network

The *Cisco Wireline Video/IPTV Solution Design and Implementation Guide, Release 1.1*, provides an introduction to monitoring and troubleshooting the Cisco Ethernet switches in the Cisco wireline-based IPTV solution. Troubleshooting areas include:

- Network Time Protocol (NTP)
- Syslog
- Quality of Service (QoS)
- Multicast

Monitoring and troubleshooting information is available here:

http://www.cisco.com/en/US/products/ps6902/products_implementation_design_guide_chapter09186a00806ac2e0.html

Monitoring and Troubleshooting in the Cable Network

The *Cisco Gigabit-Ethernet Optimized Video Networking Solution for Cable Design and Implementation Guide, Release 3.0*, provides an introduction to monitoring and troubleshooting the Cisco Ethernet switches in the Cisco cable-based IPTV solution. Troubleshooting areas include:

- Troubleshooting multicast
- Show commands
- Debug commands
- Viewing hardware rate limiter (HWRL) counters

Monitoring and troubleshooting information is available here:

http://www.cisco.com/en/US/products/ps6902/products_implementation_design_guide_chapter09186a0080645ae0.html

