



Release Notes for Cisco Video Assurance Management Solution 1.5

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Note

Visit <http://www.cisco.com/web/psa/products/index.html> to view the latest copy of these release notes.

Introduction

Cisco VAMS 1.5 delivers to service providers real-time, centralized monitoring of backbone, regional, and aggregation networks for broadcast video transport. Cisco VAMS 1.5 provides the framework for a flexible end-to-end assurance platform for video. See the [“Solution Requirements” section on page 3](#) for descriptions of the solution components and required software versions.

Cisco VAMS 1.5 uses Cisco Multicast Manager (CMM 2.5) with patch 2.5.4 for multicast monitoring and troubleshooting functions. Additionally, Cisco the VAMS 1.5 system architecture includes an interface between the Cisco Info Center (CIC) product suite¹ and CMM. Cisco has bundled this interface with the ObjectServer (central DB) and Webtop (web GUI for event list viewing) from the CIC product suite.

The CIC product suite includes two additional product components from the IBM Tivoli product suite:

1. This is the OEM product of the IBM Tivoli Netcool Suite.



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- IBM Tivoli Business & Services Manager (TBSM), a service dashboard and visualization tool.
- IBM Tivoli Impact, which supports the definition of service and network correlations.

This combination of CIC and Netcool functionality accomplishes two key objectives for Cisco VAMS 1.5. It provides:

- Connectivity between Cisco ANA and CIC.
- A “Single Pane of Glass” toolset¹ for Cisco VAMS 1.5.

CIC contains rules files that specify the rules that define multicast alerts from various sources like probes, routers, and other network management systems. The rules file contains code that extracts the multicast group and source information from these alerts and provides the operator with a Launch CMM Multicast Trace option.

By integrating CMM with CIC you can now view all the alarm conditions and data for service level correlation and analysis. Additionally, you can launch troubleshooting and diagnostic analysis from one system instead of looking at several systems.

Cisco VAMS 1.5 supports several third-party probes including the Bridge Technologies, IneoQuest, Mixed Signals, PixelMetrix, and Tektronix video probes. You can add these video quality monitoring probes to key points in the transport network. Functionally, these probes detect impairments and validate the integrity of the Moving Pictures Expert Group (MPEG) transport stream, which carries video.

The video probes communicate with the Cisco VAMS components as follows:

- The video probes communicate traps directly to CIC. For example, the PixelMatrix probe communicates directly with CIC (and can only communicate directly with CIC). When you are viewing a video probe event forwarded by these probes, you can launch CMM diagnostics directly from the CIC interface.
- Certain video probes, such as the IneoQuest probe and the iVMS NMS, communicate traps directly to CMM—CMM can then be configured to forward the traps to CIC.

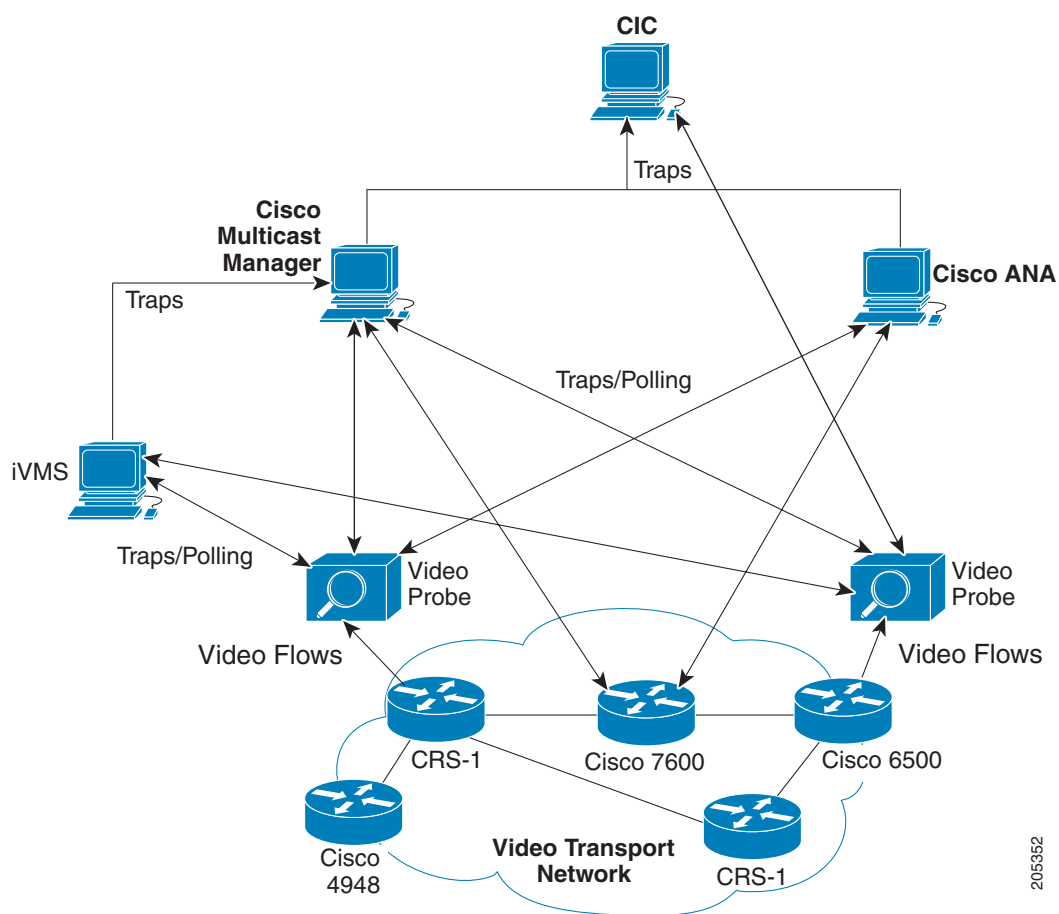
Cisco VAMS 1.5 uses Cisco ANA 3.6 Service Pack 3 to build an abstracted network model through a set of virtual network elements (VNEs). Each VNE represents an element in the managed network. Cisco VAMS 1.5 extends the base functions of the Cisco ANA 3.6.2 VNEs for Cisco 7600 Series routers, Cisco Carrier Routing System (CRS-1) devices, and Cisco Catalyst 4948 Series switches. These VNE extensions address the specific requirements of video delivery across the IP network.

Finally, the Cisco VAMS 1.5 includes generic VNEs supporting specific video probes; this release includes VNEs for IneoQuest, Mixed Signals, and Tektronix video probes.

See [Figure 1](#) for an overview of the Cisco VAMS components (the topology shown in [Figure 1](#) is an example).

1. Single Pane of Glass—The ability to utilize multiple interconnected tools to monitor, diagnose, and troubleshoot network and video impairments from a single console.

Figure 1 Cisco Video Assurance Management Solution 1.5 Components



Solution Requirements

Requirements for the Cisco VAMS are listed in [Table 1](#):

Table 1 Solution Requirements

Solution Component	Version Information	Notes
Cisco VAMS	1.5	Installation script (delivered on DVD)
Active Network Abstraction (ANA)	3.6.3	ANA Gateway—Sun Fire V490, Solaris 10 ¹ ANA Unit—Sun Fire V480, Solaris 10 ¹ ANA Client—IBM or PC compatible work station, Windows 2000 or Windows XP ¹
Cisco Multicast Manager	2.5.4	Sun Fire V440—Solaris 8, 9, or 10 Linux—Red Hat Enterprise Linux 3 or 4

Table 1 **Solution Requirements (continued)**

Solution Component	Version Information	Notes
Cisco 7600 Series router and Cisco Catalyst 6500 switch	12.2(33)SRB2, 12.2(33)SRB3, or 12.2(33)SRC1	Supervisor card: 7600-SUP720-3BXL with redundant SUP720-3BXL Line cards include WS-X6704-10GE, WS-X6708-10GE, WS-X6748-SFP, WS-X6748-GE-TX, WS-X6724-SFP, RSP720-3CXL, 7600-ES20-10G3CXL, 7600-SIP-400, 7600-SIP-600, SPA-1XTENGE-XFP, SPA-2X1GE, and optional WS-F6700-DFC3BXL
Cisco Carrier Routing System-1 (CRS-1)	IOS-XR 3.6.1.12	Line cards include CRS-MS-C, CRS1-SIP-800 (with SPA-8X1GE), 8-10GE
Cisco Catalyst 4948 switch (CAT4948-10GE)	12.2(25)EWA6 or 12.2(31)SGA1	—
Cisco Info Center	7.2	CIC includes the following OEM IBM Tivoli Netcool products • ObjectServer - 7.2 • Webtop - 2.1 • TBSM - 4.1 • Impact - 4.0
Bridge Technologies	VB Series	Version: 3.1.0-26
IneoQuest	Singulus G1-T Cricket	Singulus G1-T Media Analyzer Firmware Version: TB-2.5s-060608 Singulus G10 Firmware Version: Denali-1.3a-021808 iVMS 3.00.00 with Patch 24 IQ Cricket Firmware Version: Cricket-1.0a-092607
Mixed Signals	Sentry Digital Content Monitor	Sentry 136 Digital Content Monitor ² Sentry Engine Version: PDM (build 1460.84) Sentry Database Version: 3.0.31 Sentry Configuration: TRANSPORT
PixelMetrix	DVStation	Version: 4.17.0
Tektronix	MTM400	Application Firmware Version: 3.1.061.000 FPGA Logic Firmware Version: 4 BIOS Version: 2.0.7 SNMP Interface Version: 2.6.0 Hardware Version: 5 QA Build: Alpha 01 Build Timestamp: Dec 19 2007 22:22:42

1. See *User Guide for the Cisco Video Assurance Management Solution 1.5* for detailed specifications.

2. The Cisco VAMS 1.5 does not support carousel-related traps for Mixed Signals Sentry 136.

Installation Notes

Installation of the Cisco VAMS involves installation of its key components:

Hardware Installation

- The core network elements of the video transport network:
 - Cisco 7600 Series router
 - Cisco Catalyst 6500 Series switch
 - Cisco CRS-1
 - Cisco Catalyst 4948 Series switch
- Management servers for Cisco Multicast Manager (CMM) 2.5.4
- Management servers for Cisco Active Network Abstraction (ANA) 3.6.3 (includes gateway, unit, and client installation)
- Third-party video probes:
 - Bridge Technologies VB Series
 - IneoQuest Singulus G1-T
 - Mixed Signals Sentry Digital Content Monitor
 - Pixelmetrix DVStation
 - Tektronix MTM400
- Management servers for Cisco Info Center/Netcool 7.2 Suite

Software Installation

- The IPTV-enabled IOS software versions:
 - 12.2(33)SRB2, 12.2(33)SRB3, or 12.2(33)SRC1 on the Cisco 7600 Series router and Cisco Catalyst 6500 switch
 - IOS-XR 3.6.1.12 on the Cisco CRS-1
 - 12.2(25)EWA6 or 12.2(31)SGA1 on the Cisco Catalyst 4948 Series switch
- Cisco ANA 3.6.3 (includes gateway, unit, and client installation)
- Cisco Multicast Manager (CMM) 2.5.4 software on dedicated server
- Management software for the Cisco Info Center/Netcool 7.2 suite:
 - ObjectServer 7.2
 - Webtop 2.1
 - Impact 4.0
 - TBSM 4.1

For complete details of the installation workflow, including procedures and references to installation documents, see the *User Guide for the Cisco Video Assurance Management Solution 1.5*.

Uninstall

You uninstall the Cisco VAMS 1.5 by running the uninstall script. This action removes the IPTV extensions that enable Cisco devices to monitor video conditions in the transport network. The uninstallation procedure is contained in the *User Guide for the Cisco Video Assurance Management Solution 1.5*.

Limitations and Restrictions

This section contains these topics:

- [Java Version for CIC Browsers, page 6](#)
- [Cisco Multicast Manager Trap Limitations, page 6](#)

Java Version for CIC Browsers

The IBM TBSM browser must run on JRE 1.4.2 or JRE 1.5. Java versions higher than 1.5 in client web browsers result in a failure of the Service Viewer and Service Details in the TBSM window

Cisco Multicast Manager Limitation with Naming Services

Disable any naming service such as Network Information Service (NIS) or NIS+ before running CMM 2.5.4.

Cisco Multicast Manager Trap Limitations

The following Cisco Multicast Manager *Normalized* traps do not clear their corresponding *Threshold Exceeded* traps:

```
'High L2 Port Threshold Exceeded',
'Low L2 Port Threshold Exceeded',
'L2 Threshold Normalized',
---
'SG Delta Threshold Exceeded',
'SG Threshold Normalized',
---
'Multicast Bandwidth Percent High Threshold Exceeded',
'Multicast Bandwidth Percent Low Threshold Exceeded',
'Multicast Bandwidth Percent Threshold Normalized',
---
'High BPS Threshold Exceeded',
'Low BPS Threshold Exceeded',
'BPS Threshold Normalized',
```

The Cisco ANA processes all Cisco Multicast Manager traps, but currently lacks the capability to correlate threshold normalized traps to their corresponding threshold exceeded traps.

In addition, the following Cisco Multicast Manager traps do not have corresponding *clears*.

```
'RP Group Threshold Exceeded',
---
```

```
'RPF Failure Threshold Exceeded',
```

```
---
```

```
'High Threshold Exceeded PPS',
```

```
'Low Threshold Exceeded PPS',
```

Open Caveats

Cisco VAMS 1.5 includes these caveats:

Table 2 **Open Defects in Cisco VAMS 1.5**

Defect ID	Description
CSCsu67694	Symptom Video Service alarm for IneoQuest doesn't increment. Conditions The Video Fault page has a Video Services Events sidebar; under this there are icons for different probe vendors. The IneoQuest probe vendor item does not increment. Any Ineoquest events go straight into the All Video Events counter. Workaround None.
CSCsu99456	Symptom CMM tree change/revert not working properly. Conditions CMM is able to display multicast tree traces; however, it will not generate alerts or reports for the latest events. For example, when performing a health check, the tree status is shown as "N/A." Workaround None.
CSCsr96319	Symptom ANAServerIP value is recorded incorrectly. Conditions For any ticket reported by Cisco ANA, the LocalNodeAlias field is mapped to the ANAServerIP field. This occurs with version NCW_V2.1.59 running on Solaris 2.9. Workaround None
CSCsr98713	Symptom Cisco Multicast Manager discovery does not complete if NIS+ is enabled. Conditions When running CMM 2.5.4 on Solaris 10, with Network Information Service Plus (NIS+) enabled, CMM discovery does not complete. The .snmp library initialization call gets stuck and the discovery process does not proceed. Running truss shows that the process is not able to open the <code>/etc/nisplus.conf</code> file. Workaround Disable any naming service such as NIS or NIS+ before running CMM 2.5.4.

Table 2 **Open Defects in Cisco VAMS 1.5 (continued)**

Defect ID	Description
CSCsr98477	Symptom The ANA Topological link properties entry is incorrect. Conditions Media type is incorrect in the link attributes GUI; for example, the link property is shown as RJ45 when it should be an 'Optic Fi.' This condition occurs in the attributes for ports with pluggable modules, such as SFP. Workaround None
CSCsu21758	Symptom 7600 Redundancy status is only shown on one module. Conditions This condition occurs when ANA 3.6.0.3.9 is running and a Cisco 7606 is running SRC1. When Cisco 7600s are viewed, Network Vision only shows the correct SSO redundancy status on the card that is in module 5. Module 6 shows the status "none." Workaround None.
CSCsu00220	Symptom Topological Link Properties reports incorrect operational status. Conditions When a 6748 card is removed from a Cisco 7600 device, ANA reports a link down status due to an oper down condition. Clicking the hyperlinks in the condition display opens the detailed ticket. The opened ticket confirms the correct Oper. Status as Down, however, the Admin Status is incorrectly recorded as UP. Workaround None.
CSCsu59544	Symptom The ciscoIpMRouteNumberOfEntries count is inconsistent for SSM groups. Conditions When the ciscoIpMRouteNumberOfEntries OID is polled, the value returned for number of groups reflects not only the SSM (s,g) but also the SSM (*,g), which are internal, hidden entries. Thus, the number indicated is higher than the number that is shown when the <code>show ip mroute count</code> command is entered. Workaround None.

Related Documentation

This section lists documents related to the Cisco VAMS 1.5.

- [Release-Specific Documents, page 9](#)
- [Platform-Specific Documents, page 9](#)
- [Hardware and IOS Software Documents, page 11](#)
- [Third-Party Documentation, page 12](#)
- [Solution-Related Documents, page 13](#)

Release-Specific Documents

Release 1.5 of the Cisco VAMS includes these documents:

- *Release Notes for the Cisco Video Assurance Management Solution 1.5* (this document)
- *User Guide for the Cisco Video Assurance Management Solution 1.5*

Platform-Specific Documents

Platform-specific documents include:

- [Cisco Active Network Abstraction, page 9](#)
- [Cisco Multicast Manager, page 10](#)

Cisco Active Network Abstraction

Cisco Active Network Abstraction (ANA) 3.6 Service Pack 3 is the element management platform for the Cisco VAMS.

Cisco ANA Release Notes

Release Notes for Cisco Active Network Abstraction, Version 3.6

Viewable online at:

http://www.cisco.com/en/US/products/ps6776/prod_release_notes_list.html

Cisco ANA User and Reference Guides

- *Cisco Active Network Abstraction EventVision User Guide Version 3.6*
- *Cisco Active Network Abstraction Fault Management User Guide Version 3.6*
- *Cisco Active Network Abstraction Managing MPLS User Guide Version 3.6*
- *Cisco Active Network Abstraction NetworkVision User Guide Version 3.6*
- *Cisco Active Network Abstraction Technology Support and Information Model Reference Manual, Version 3.6*
- *Cisco Active Network Abstraction 3.6 Virtual Network Element Reference Guide*

Viewable online at:

http://www.cisco.com/en/US/products/ps6776/products_user_guide_list.html

Cisco ANA Configuration Guides

- *Cisco Active Network Abstraction BQL User Guide 3.6*
- *Cisco Active Network Abstraction Command Builder User Guide 3.6*
- *Cisco Active Network Abstraction Customization User Guide 3.6*
- *Cisco Active Network Abstraction Workflow User Guide 3.6*

Viewable online at:

http://www.cisco.com/en/US/products/ps6776/products_installation_and_configuration_guides_list.html

Cisco ANA Administration Guides

- *Cisco Active Network Abstraction Administrator Guide 3.6*
- *Cisco Active Network Abstraction Error Messages 3.6*
- *Cisco Active Network Abstraction High Availability User Guide 3.6*
- *Cisco Active Network Abstraction Shell User Guide 3.6*

Viewable online at:

http://www.cisco.com/en/US/products/ps6776/prod_maintenance_guides_list.html

Cisco Multicast Manager

Cisco Multicast Manager (CMM) 2.5.4 forwards traps from the video transport network to Cisco ANA.

Cisco Multicast Manager Release Notes

Release Notes for Cisco Multicast Manager 2.5

Viewable online at:

http://www.cisco.com/en/US/products/ps6337/prod_release_notes_list.html

Cisco Multicast Manager Installation Guide

Installation Guide for Cisco Multicast Manager, 2.5

Viewable online at:

http://www.cisco.com/en/US/products/ps6337/prod_installation_guides_list.html

Cisco Multicast Manager User Guide

User Guide for Cisco Multicast Manager 2.5

Viewable online at:

http://www.cisco.com/en/US/products/ps6337/products_user_guide_list.html

Hardware and IOS Software Documents

Hardware documents for the Cisco devices in the Cisco VAMS 1.5 include:

Cisco Routers and Switches

The Cisco 7600 Series router, the CRS-1, and a Catalyst 4948 or Catalyst 6500 Series switch form the core of the video transport network.

Cisco 7600 Series Routers

Viewable online at:

http://www.cisco.com/en/US/products/hw/routers/ps368/tsd_products_support_series_home.html

Cisco Catalyst 6500 Series Switches

Viewable online at:

http://www.cisco.com/en/US/products/hw/switches/ps708/tsd_products_support_series_home.html

Cisco Carrier Routing System (CRS-1)

Viewable online at:

http://www.cisco.com/en/US/products/ps5763/tsd_products_support_series_home.html

Cisco Catalyst 4900 Series Switches

Viewable online at:

http://www.cisco.com/en/US/products/ps6021/tsd_products_support_series_home.html

Cisco IOS Software Documentation Set

Software documents for the Cisco devices in the Cisco VAMS 1.5 include:

Cisco 7600 Series Router release notes for the 12.2(33)SRB2, 12.2(33)SRB3, and 12.2(33)SRC1 IOS

Viewable online at:

http://www.cisco.com/en/US/docs/ios/12_2sr/release/notes/122SRrn.html

Cisco Catalyst 6500 Series Switch release notes for the 12.2(33)SRB2, 12.2(33)SRB3, and 12.2(33)SRC1 IOS

Viewable online at:

http://www.cisco.com/en/US/docs/ios/12_2sr/release/notes/122SRrn.html

Cisco CRS-1 release notes for the IOS-XR 3.6.1.12

Viewable online at:

http://www.cisco.com/en/US/docs/ios_xr_sw/iosxr_r3.6/general/release/notes/reIn_361.html

Cisco Catalyst 4900 release notes for the 12.2(25)EWA6 and 12.2(31)SG IOS

Viewable online at:

http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/release/note/OL_9592.html

Third-Party Documentation

Third-party documentation related to the Cisco VAMS 1.5 include:

- [CIC/Netcool Documentation, page 12](#)
- [Video Probe Documentation, page 12](#)

CIC/Netcool Documentation

The Cisco VAMS 1.5 system architecture includes an interface between IBM's Netcool 7.1 product suite (under the Cisco Info Center or CIC product family) and Cisco Active Network Abstraction (ANA).

Documentation Guide and Supplemental License Agreement

Cisco Info Center 7.1 Documentation Guide and Supplemental Licence Agreement

Viewable online at:

http://www.cisco.com/en/US/products/sw/netmgts/ps996/products_documentation_roadmap09186a0080805796.html

IBM Tivoli Network Management Documentation Index Page

See the following guides for this product, available on the IBM website.

User Guide

Netcool/OMNIBus 7.1 User Guide

Administration Guide

Netcool/OMNIBus 7.1 Administration Guide

Installation and Deployment

Netcool/OMNIBus 7.1 Installation and Deployment Guide

Release Notes

Netcool/OMNIBus 7.1 Release Notes

Probe and Gateway Guide

Netcool/OMNIBus 7.1 Probe and Gateway Guide

Video Probe Documentation

Bridge Technologies

VB120 Broadcast IP-Probe User's Manual v. 4.0

IneoQuest IQMediaMonitor Series M1 Singulus G1-T

- *Hardware User's Guide*
- *IQMediaAnalyzer Application User's Guide*

IneoQuest Cricket

See the IneoQuest website for more information.

IneoQuest Singulus G10

See the IneoQuest website for more information.

Mixed Signals Sentry

Mixed Signals Sentry Digital Content Monitor User Guide

PixelMetrix

DVStation-IP-3 User Manual, Software Version 4.17

Tektronix MTM400

- *MTM400 MPEG Transport Stream Monitor User Manual*
- *MTM400 MPEG Transport Stream Monitor Technical Reference*
- *MTM400 MPEG Transport Stream Monitor Programmer Manual*

Solution-Related Documents

Other solution documents related to the Cisco VAMS 1.5 include:

Cisco IPTV Wireline Solutions

Cisco Wireline Video/IPTV Solution Design and Implementation Guide, Release 1.1

Viewable online at:

http://www.cisco.com/en/US/products/ps6902/products_implementation_design_guide_book09186a00806b5b4c.html

Cisco IPTV Cable Solutions

Cisco Gigabit-Ethernet Optimized Video Networking Solution for Cable Design and Implementation Guide, Release 3.0

Viewable online at:

http://www.cisco.com/en/US/products/ps6902/products_implementation_design_guide_book09186a00806470d8.html

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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